

CHAPTER 4

The Five-Factor Model in Fact and Fiction

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Whether this story was true or not does not matter. Fantasy is the beloved of reason.

—*Envy* (Olesha, 1927/1967, p. 61)

THE FIVE-FACTOR MODEL	66
THE FACTS: FINDINGS FROM FFM RESEARCH	70
THE STORY: A THEORY OF TRAITS IN OPERATION	74
THE VALUE OF LITERATURE FOR PSYCHOLOGY	76

THE USES OF TRAIT PSYCHOLOGY IN THE HUMANITIES	81
THE VALUE OF CONTEMPORARY PERSONALITY PSYCHOLOGY FOR WRITERS AND READERS	86
EPILOGUE	87
REFERENCES	88

Science and art have different criteria for truth. For science, it is seen in the conformity of ideas with observations—ideally, precise observations, made repeatedly, in telling circumstances. For art, truth is manifest through the experience of insight and a sense of deepened understanding. What is true for science is sometimes—but only sometimes—true in art, and vice versa. In this chapter we outline the facts about the Five-Factor Model (FFM) of personality as psychologists understand them today after decades of empirical research. We then consider personality traits in characters from literature, in particular Molière’s *Alceste* and Voltaire’s *Candide*. We are concerned both with what psychologists can learn from the study of personality in fiction and with how students of the humanities can benefit from an understanding of contemporary trait psychology.

Psychologists in general have ambivalent feelings about these issues (Oatley, 1999). Personality psychologists may swell with proprietary pride when Harold Bloom writes

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that “the representation of human character and personality remains always the supreme literary value” (Bloom, 1998, pp. 3–4), but they are likely to take umbrage at his assertion that our greatest psychologist is Shakespeare. Although Henry Murray, one of the uncontested giants of personality psychology, devoted years to an examination of *Moby Dick*, analyses of personality in fictional characters (e.g., Johnson, Carroll, Gottschall, & Kruger, 2011) are rarely found in psychology journals today, and when they appear, may be disparaged as mere “prescientific literary allusions” (Goldberg, 1994, p. 353). One task of this chapter will be to define the conditions under which an examination of fictional characters can usefully contribute to scientific psychology.

Shakespeare was a keen observer of human nature, but he never had the opportunity to read the *Journal of Personality*. Can today’s playwrights and novelists benefit in some way from a consideration of scientific insights into personality? For a century literary criticism has been influenced by Freudian thought, but Freud’s stature in contemporary personality psychology has diminished markedly. Can critics gain new insights from recent research on the origins and effects of personality traits? Can an understanding of the FFM contribute to the general reader’s appreciation of literature? These questions will also be addressed here.

THE FIVE-FACTOR MODEL

The FFM provides a basic description of individual differences in personality traits. Research using the FFM as a guide has yielded a substantial body of findings about how traits function, and new theories have been developed to integrate these findings into a coherent theory of personality. We turn first to the description.

An Overview

The FFM (Digman, 1990; John, Naumann, & Soto, 2008) is a taxonomy, or grouping, of personality traits that, in the past 30 years, has come to be adopted by most psychologists. Traits are “dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions” (McCrae & Costa, 2003, p. 25), and trait concepts are universally used to describe oneself and others. Laypersons use words like *nervous*, *enthusiastic*, *original*, *affable*, and *careful*, whereas psychologists have technical terms such as *dysthymia*, *surgency*, *tolerance for ambiguity*, *need for abasement*, and *superego strength*. The great advance that the FFM offered the field of personality psychology was the demonstration that almost all these lay terms and most of the concepts proposed by a wide range of personality theories could be understood in terms of just five very broad factors or trait dimensions, usually labeled *Neuroticism*, *Extraversion*, *Openness to Experience*, *Agreeableness*, and *Conscientiousness* (McCrae & John, 1992). The characteristics that Murray (1938) called *needs* turn out to resemble Gough’s (1987) folk concepts and Lorr’s (1986) interpersonal styles, as well as Jung’s (1923/1971) psychological types, and all of them can be understood in terms of the FFM. This simple and powerful scheme for organizing ideas led to dramatic advances in personality psychology (McCrae & Costa, 2008a).

Because the factors are so broad, they are correspondingly rich and difficult to convey in a single label or brief definition. Neuroticism encompasses tendencies to experience distressing emotions such as fear, resentment, and guilt, and to show associated patterns of behavior, including inability to resist impulses or cope with stressful situations. Extraversion includes sociability and leadership, but also cheerfulness, energy, and a love of fun. Openness, the least familiar of the factors, concerns such traits as need for variety, aesthetic sensitivity, and an open-mindedness that the poet John Keats described famously, if somewhat cryptically, as “negative capability.” Agreeableness refers to prosocial traits such as generosity and

cooperation; Conscientiousness denotes strength of will, organization, and purposefulness.

One way to convey the nature of traits is by pointing to examples. Psychologists frequently use case studies to illustrate their concepts—often psychotherapy patients (McCrae, Harwood, & Kelly, 2011) or historical figures (Costa & McCrae, 1998). It is also possible to use characters from fiction as case studies (McCrae, 1994b). Indeed, Levitas (1963) claimed that literature “offers us a profound psychological knowledge that transcends our intellectual awareness of meaning and offers us an emotional experience of truth” (Vol. 1, p. vii). Table 4.1 has a more modest intent: It provides brief factor definitions along with some proposed exemplars from Western literature simply as a way to familiarize the reader with the five factors.¹ For each factor, the table first describes high scorers and gives examples from fiction; the next row of the table describes and illustrates low scorers on the same factor—that is, people with the opposite or absence of the designated characteristic. Readers are invited to ponder the distinctive features of personality that the high scorers share, and that distinguish them from the low scorers for that factor.

To understand the table, it must be recalled that fictional characters, like real people, have more than one trait. Falstaff, for example, is listed as an extravert, but he is also decidedly low in Conscientiousness. His wit, vitality, and sociability make him an exemplar of Extraversion; his sloth, gluttony, and lax morals are irrelevant to that trait.

The directions of the factors, and thus the terms *high* and *low*, are arbitrary; extraverts could just as well be described as being low on the factor of Introversion. In particular, readers should not assume that it is better or psychologically healthier to score high on a trait. The value of a trait depends on the requirements of the situation: Loving-kindness is admirable in a mother, but perhaps not in a prosecuting attorney. In fact, some evolutionary psychologists have argued that individual differences are preserved precisely because both poles of all traits have adaptive value in some circumstances (Figueredo et al., 2005).

Because traits are descriptive, not evaluative, a psychological understanding of personality requires a certain detached objectivity; outright villains may have traits normally considered desirable. In Milton’s *Paradise Lost*, for example, Satan has a very high aspiration level and persists tenaciously in his bid to thwart God’s purposes; he is

¹These examples are “proposed” because their personality profiles have not yet been formally assessed, as described in a later section.

TABLE 4.1 Factor Descriptions and Examples of High and Low Scorers from Literature

Description	Character	Source
Neuroticism <i>High scorers</i> experience many forms of emotional distress, have unrealistic ideas and troublesome urges: <i>anxious, irritable, gloomy, self-conscious, impulsive, fragile</i> .	Blanche DuBois Chip Lambert J. Alfred Prufrock Miss Havisham	Williams, <i>A Streetcar Named Desire</i> Franzen, <i>The Corrections</i> Eliot, "The Lovesong" Dickens, <i>Great Expectations</i>
<i>Low scorers</i> are emotionally stable, do not get upset easily, and are not prone to depression: <i>calm, even-tempered, contented, confident, controlled, resilient</i> .	James Bond The Mother Portia Sancho Panza	Fleming, <i>Casino Royale</i> Wyss, <i>Swiss Family Robinson</i> Shakespeare, <i>Merchant of Venice</i> Cervantes, <i>Don Quixote</i>
Extraversion <i>High scorers</i> prefer intense and frequent interpersonal interactions and are energized and optimistic: <i>warm, sociable, dominant, active, fun-loving, cheerful</i> .	Mame Rhett Butler Sir John Falstaff The Wife of Bath	Dennis, <i>Auntie Mame</i> Mitchell, <i>Gone With the Wind</i> Shakespeare, <i>Henry IV</i> Chaucer, <i>The Canterbury Tales</i>
<i>Low scorers</i> are reserved and tend to prefer a few close friends to large groups of people: <i>distant, solitary, unassertive, slow-paced, unadventurous, somber</i> .	Bartleby Beth March Boo Radley Elinor Dashwood	Melville, <i>Bartleby, the Scrivener</i> Alcott, <i>Little Women</i> Lee, <i>To Kill a Mockingbird</i> Austen, <i>Sense and Sensibility</i>
Openness to Experience <i>High scorers</i> seek out new experience and have a fluid style of thought: <i>imaginative, artistic, empathic, novelty-seeking, curious, liberal</i> .	Des Esseintes Huck Finn Lisa Simpson Little Alice	Huysmans, <i>Against the Grain</i> Twain, <i>The Adventures of Huckleberry Finn</i> Groening, <i>The Simpsons</i> Carroll, <i>Through the Looking Glass</i>
<i>Low scorers</i> are traditional, conservative, and prefer familiarity to novelty: <i>down-to-earth, philistine, unemotional, old-fashioned, concrete, dogmatic</i> .	Aunt Em Miss Pross The Pastor Tom Buchanan	Baum, <i>The Wonderful Wizard of Oz</i> Dickens, <i>A Tale of Two Cities</i> Gide, <i>La Symphonie Pastorale</i> Fitzgerald, <i>The Great Gatsby</i>
Agreeableness <i>High scorers</i> regard others with sympathy and act unselfishly: <i>trusting, honest, generous, forgiving, humble, merciful</i> .	Alexei Karamazov Dorothea Brooke The Duchess The Vicar	Dostoyevsky, <i>Brothers Karamazov</i> Eliot, <i>Middlemarch</i> Browning, "My Last Duchess" Goldsmith, <i>The Vicar of Wakefield</i>
<i>Low scorers</i> are not concerned about other people and tend to be antagonistic and hostile: <i>suspicious, manipulative, selfish, stubborn, arrogant, cold-blooded</i> .	Cousin Bette Heathcliff Medea Alex	Balzac, <i>Cousin Bette</i> Brontë, <i>Wuthering Heights</i> Euripides, <i>Medea</i> Burgess, <i>A Clockwork Orange</i>
Conscientiousness <i>High scorers</i> control their behavior in the service of their goals: <i>efficient, organized, scrupulous, ambitious, self-disciplined, careful</i> .	Antigone John Henry King Arthur Mildred Pierce	Sophocles, <i>Antigone</i> American folklore Tennyson, <i>Idylls of the King</i> Cain, <i>Mildred Pierce</i>
<i>Low scorers</i> have a hard time keeping to a schedule, are disorganized, and can be unreliable: <i>inept, untidy, lax, lazy, weak-willed, hasty</i> .	Ignatius J. Reilly Oscar Madison Sadie Thompson Uncle's Wife	Toole, <i>A Confederacy of Dunces</i> Simon, <i>The Odd Couple</i> Maugham, "Rain" Buck, <i>The Good Earth</i>

Note. Factor descriptions are adapted from McCrae and Sutin (2007).

clearly high in Conscientiousness (and all the more dangerous for it). Accurate personality assessments must give the Devil his due.

A Brief History of the FFM

Perhaps because they sensed that something momentous was happening in the emergence of the FFM, several

writers offered histories of the research that had led to it (Digman, 1990; John, Angleitner, & Ostendorf, 1988; McCrae & John, 1992). Briefly, the model arose in the context of a recurring problem in trait psychology: How can individual differences be systematically studied? Throughout the middle of the 20th century some of the greatest minds in psychology had contemplated the distinctive ways in which people behaved and reacted to

events, and they proposed concepts to capture these differences, often based on complete theories of personality (e.g., Murray, 1938; Reich, 1945). Other researchers created instruments—including the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1943), the Personality Research Form (Jackson, 1974), and the Multidimensional Personality Inventory (Tellegen, 1982)—to assess these features of personality. Hundreds of other scales had been developed for specialized purposes.

All these scales had demonstrated scientific merit, but the sheer number of them was bewildering. Another group of researchers therefore attempted to systematize them by the use of factor analysis. Despite differing labels, many of the constructs assessed by personality scales overlapped. Measures of anxiety and depression, for example, were strongly correlated, because people who are anxious are often depressed. Factor analysis is a statistical procedure for recognizing clusters of related variables—in this case, personality traits—allowing researchers to organize different scales into groups that all assessed related, if not identical, traits (Goldberg & Digman, 1994).

The problem for factor analysts was to determine which scales to include in their analyses. It was not feasible to ask research volunteers to complete each and every one of the thousands of personality scales available—nor was it possible to analyze so many variables in the days before computers. Researchers had to make a selection of traits, and there seemed to be no way to know if their results were biased by their choices. For decades, debate raged about which model—the 16 factors of Cattell, the 10 of Guilford, the 2 of Eysenck, to name only the most prominent candidates—was correct. Worse yet, the possibility remained that none of the models was correct, because psychologists may have overlooked important traits when creating their scales. How could one guarantee that a trait model was comprehensive?

Ultimately, the solution came from a somewhat different tradition. Beginning with Sir Francis Galton in the 19th century, some psychologists had been impressed by the richness and precision of the lay vocabulary of personality traits (John et al., 1988). In 1936 Gordon Allport assigned his student, Henry Odbert, to extract all the trait descriptive adjectives—some 18,000 of them—from an unabridged English dictionary (Allport & Odbert, 1936).²

²Odbert left the field of personality research shortly after completing this task; fifty years later, however, he was “quite impressed” by the subsequent work leading to the FFM, and thought that “Gordon Allport would have been very much interested” (H. S. Odbert, personal communication, August 19, 1991).

The rationale behind this work was the *lexical hypothesis*: Because personality traits are important in human life, people will have invented words to describe all of them. In principle, then, a factor analysis of the trait lexicon should reveal the structure of human personality. From today’s perspective, this hypothesis is only roughly true, but it was an excellent beginning.

Cattell (1946) combined synonyms and distilled the list of traits down to 35 scales, and subsequent researchers, including Fiske (1949), Tupes and Christal (1961/1992), and Norman (1963) factored these scales and consistently found five factors. Twenty years later, Goldberg (1983) began again with the dictionary and again found five factors strongly resembling those of Tupes and Christal. It had become clear that the FFM was the optimal model for representing the structure of trait adjectives in English. (Subsequent lexical studies in other languages have suggested more [Ashton et al., 2004] or fewer [De Raad et al., 2010] factors, but all are closely related to the FFM factors.)

McCrae and Costa (1987), whose previous research had led them to a three-factor model based on analyses of questionnaire scales (Costa & McCrae, 1980), showed that their Neuroticism, Extraversion, and Openness factors corresponded to three of the five lexical factors, and they argued that all five were necessary and more-or-less sufficient for a comprehensive taxonomy of personality traits. In a series of studies, they showed that factors derived from the most prominent alternative personality models could be understood in terms of the FFM (McCrae, 1989), and they developed and published a new instrument that assessed the FFM and a number of its constituent traits, the NEO Personality Inventory (Costa & McCrae, 1985; McCrae & Costa, 2010).

Together with the work of many others (e.g., Angleitner & Ostendorf, 1994; John, 1990; Markon, Krueger, & Watson, 2005), this research led to the widespread adoption of the FFM as an adequate taxonomy of personality traits. It enabled researchers to address a whole range of problems systematically: Instead of having to choose from among hundreds of available trait measures, researchers needed only to sample each of the five factors. Further, existing studies could be reinterpreted in literature reviews and meta-analyses, because most of the scales used in personality research could be classified and organized using the FFM as a framework (e.g., Barrick & Mount, 1991; Steel, Schmidt, & Shultz, 2008). Personality research flourished.

The Problem of Specificity

The FFM offers tremendous economy, summarizing a host of specific traits in just five factors. The downside is that

these descriptions are correspondingly superficial. One early critique (McAdams, 1992) called it a “psychology of the stranger,” because it fails to provide the “contextualized and nuanced . . . attributions” (p. 353) we would expect in a description of someone we knew well (including ourselves). In part this criticism calls attention to the fact that there is more to personality than traits; in part, it points to the fact that the five factors themselves do not provide sufficient detail even on the level of traits. A biological taxonomy that distinguished mammals from birds but did not recognize the difference between bats, dolphins, and elephants would be of limited utility.

Psychologists usually refer to this as the *bandwidth problem*: Broad traits (like the FFM factors) predict a wide range of criteria but lack the specificity of narrow traits. Neuroticism, for example, includes both fearfulness and chronic dejection, and global measures of Neuroticism are useful predictors of a wide range of psychopathology, including anxiety and mood disorders. But to determine the optimal treatment, clinical psychologists need to know if their patients are phobic or depressed (or both), and a global measure of Neuroticism cannot provide that differential diagnosis. Instead, they need separate measures of anxiety and depression. These are traits that are both closely related to Neuroticism, but that also assess qualitatively different aspects, or facets, of that broad factor.

Surely literary scholars would raise the same objection to the use of the five factors to describe fictional characters: The assessments would be too crude to do justice to the contextualized behaviors and nuanced emotional reactions that skilled writers use to bring their creations to life. Personality psychologists would have to concede the merit of that argument, in part because they know the meaningful distinctions between facets within each factor.

The FFM is based on the observation that sets of traits covary: For example, people who are sociable are also generally cheerful and dominant—these are prototypical extraverts. But this is a generalization; some people are sociable but not cheerful, some people are cheerful but not dominant. Goethe’s *Faust*, whose personality we discuss below, is a clear instance of this: He is active and assertive (like the typical extravert) but interpersonally cold and fond of solitude (like the typical introvert). One would be technically correct in describing him as an ambivert (average on the Extraversion factor), but this description would not adequately capture his personality.

Fortunately, there is no need to choose between the broad and economical factors and the narrow but precise facets: Personality assessment can include both. Where all facets defining a factor are at a similar level, the individual

can conveniently be described by a summary factor label; where there is marked divergence among facets, a more detailed account of personality is possible at the level of facets. Different readings of characters can sometimes be resolved by adopting this approach. Is Sherlock Holmes high or low on Neuroticism? If one focuses on his periods of depression (and perhaps on his drug use), one might pronounce him high. If instead one notes his steel nerves in moments of crisis, one would conclude that he is very low. These global judgments may subtly color—and distort—perceptions of the character as a whole. Readers informed by the FFM would distinguish between Holmes’s depressive tendencies and his low anxiety and vulnerability to stress.

The only problem with this hierarchical strategy is that of identifying the specific traits. After all, the FFM arose precisely because the thousands of lay adjectives and hundreds of psychological constructs that refer to specific traits were unmanageable. Is it possible to find a middle ground, to classify traits at a level one step below the five factors, as biologists divide broad classes (birds, mammals) into somewhat narrower orders (waterfowl and parrots, carnivores and primates)?

Costa and McCrae (1995) offered one such classification. They reviewed the personality literature and attempted to identify six distinct facets that represented the most important traits for each of the five factors, and they developed the NEO Inventories to assess them (McCrae & Costa, 2010). A substantial literature is now available that describes the heritability, longitudinal stability, and developmental course of these 30 facets, and they have been used to describe national stereotypes (Terracciano et al., 2005) and features of culture (McCrae, 2009) as well as traits in individuals. Although this classification has been criticized as rational rather than purely empirical (Roberts, Chernyshenko, Stark, & Goldberg, 2005), it provides a taxonomy of specific traits that has repeatedly proven to be useful (McCrae & Costa, 2008a). Assessing personality at the level of the 30 NEO facets can give a detailed portrait of literary characters.

Common Fictions About the FFM

Introductory psychology texts now routinely mention the FFM, and most psychologists and psychology students have some familiarity with it. But there are several common misconceptions that should be corrected.

- The FFM is not identical with the “Big Five.” That label originated in studies of lay trait adjectives

(Goldberg, 1992) and has become a popular way to designate the five factors themselves as very broad traits. By contrast, the FFM refers to a classification of many traits in terms of the five factors. Conceptually, the Big Five refers only to the highest level of a hierarchy of traits, whereas the FFM encompasses the full hierarchy. The practical difference between these two is that one uses only five scores to characterize an individual in Big Five terms, whereas many more scores may be needed to describe a person's FFM profile. Big Five descriptions are broad-brush; FFM descriptions may be exquisitely fine-grained.

- Historically, the FFM factors were first identified from analyses of the trait adjectives used by laypersons and conveniently codified in dictionaries (McCrae & John, 1992). Studies of lay trait vocabularies in different languages are called *lexical studies*, and they are a source of useful information about personality and about cultural differences in the conceptualization of personality. But the FFM is not itself a lexical model, because the same five factors have also been found in a wide variety of scientific instruments for the assessment of personality (Markon et al., 2005). Sometimes languages lack terms for important traits—English, for example, has no single word for “sensitivity to aesthetic impressions” or “need for variety” (McCrae, 1990)—and sometimes they overrepresent narrow constructs and thus seem to define new factors (see McCrae & Costa, 2008b). The lexical approach provides one source of evidence on personality structure, but it is not a privileged perspective.
- The FFM, and traits themselves, have sometimes been criticized as being merely descriptive—that is, lacking a theoretical basis (Block, 1995) or failing to provide real explanations for behavior (Cervone, 2004). But in fact trait theory is one of the oldest theories of personality, and the FFM traits have been viewed from a variety of theoretical perspectives (Wiggins, 1996). Traits also provide a kind of explanation for behavior, although it is distal rather than proximal (McCrae & Costa, 1995). It is meaningful to say that Horatio Alger's heroes prospered *because they were hardworking*, although the details of how they translated this trait into success vary with the novel.
- Conversely, it is also an error to believe that the FFM is a complete theory of personality. Even if it carries with it an implicit trait theory, a classification of traits in itself does not account for how people act on a specific occasion or how their lives develop over time. Fortunately, new theories of personality have been proposed

that put the FFM into the context of a dynamic model of personality functioning. We will return to one of these below.

THE FACTS: FINDINGS FROM FFM RESEARCH

Merely as a description of personality, the FFM might be of use to art historians who study portrait painting. But the characters of fiction are not static portraits; they are dynamic figures who go about their lives, interact with others, and often grow up or grow old. Application of the FFM to the study of fiction requires that one consider what is known about how FFM traits function in the lives of men and women. A great deal has been learned in the past two decades; we will briefly review the chief findings here. In the next section we discuss one of a new generation of personality theories that attempt to work these findings into a coherent story (McCrae & Costa, 1996).

Consensual Validation

Most personality research is conducted using self-reports: Individuals are presented with a questionnaire and asked to indicate how well they are described by a standard series of statements (“I have a very active imagination,” “I am easily frightened”). This method is clearly not applicable to literary figures, so it is fortunate that there is an alternative, in which knowledgeable informants are asked to describe the target (“She has a very active imagination,” “He is easily frightened”). Observer ratings of personality have been widely used to describe historical figures who, like fictional characters, cannot describe themselves (Cassandro & Simonton, 2010; Rubenzer, Faschingbauer, & Ones, 2000).

This practice is based on the premise that both self-reports and observer ratings are sufficiently accurate as to be more-or-less interchangeable, which is not a trivial assumption. The poet Robert Burns had immortalized the view that how we “see ourselves” may be delusional, and that we must ask how “others see us” for an objective account of our traits. Psychoanalysts endorsed this view and explained the delusions as a result of defense mechanisms. Social cognitive psychologists later suggested that the trait concept itself was a delusion, and that both self-reports and observer ratings were groundless; agreement among different sources of information was therefore not to be expected (Fiske, 1974).

Many subsequent studies, however, clearly and consistently showed that external observers do agree substantially among themselves on ratings of all five factors, and

that observer ratings corroborate self-reports (e.g., Funder, 1980; McCrae et al., 2004). Those findings made this chapter possible, because they established that traits are not a myth, that the FFM and its operation can be studied using either method of personality assessment, and that it is legitimate to assess the personality of individuals who cannot describe themselves.

Personality Development

By definition, traits are enduring dispositions, not transient moods, but longitudinal research was needed to determine exactly how long traits endured. In these studies, the same individuals are assessed two or more times across a period of years or decades. Keeping track of a large pool of respondents (or relocating them years later) is an arduous task, so longitudinal studies are relatively rare; it was only in the 1970s that their results began to accumulate. The findings astonished researchers: The rank-order of individuals' trait levels was strongly preserved over periods of 10 years and longer (Block, 1981; Costa, McCrae, & Arenberg, 1980). Most psychologists had assumed that intervening life events (marriage, divorce, health problems, retirement) would profoundly alter personality traits; instead, personality profiles remained largely unchanged for the great majority of people.

Subsequent studies led to a more precise statement of the stability of individual differences (Roberts & DelVecchio, 2000; Terracciano, Costa, & McCrae, 2006): There is some continuity of FFM traits from early childhood throughout old age; stability increases with age, at least until age 30; and perhaps as much as 80% of the variance in personality traits is stable over the adult lifetime. Neurological disorders such as Alzheimer's disease do alter personality traits, but personality stability is the rule for almost everyone else. The most agreeable and introverted 30-year-olds are likely to become the most agreeable and introverted 80-year-olds; 80-year-olds who are anxious and reactionary had probably been anxious and reactionary as 30-year-olds.

The stability of individual differences is logically independent of change in mean level: It is possible for everyone to change while maintaining the same order. Individual differences in height, for instance, are relatively stable between age 5 and age 15, but the average height increases dramatically over those 10 years. Something like the same phenomenon is seen in personality development, where maturational trends are seen for all five factors. Neuroticism and Extraversion decline with age, whereas Agreeableness and Conscientiousness increase (Terracciano, McCrae, Brant, & Costa, 2005); in most studies,

Openness increases from adolescence until the early 20s, and then declines (McCrae, Terracciano, & 78 Members, 2005). Moderately large changes are found between age 18 and age 30, as people settle into adulthood; thereafter, changes are very gradual and the net effect is quite subtle. Note that most changes are in the direction of greater psychological maturity: Both men and women become calmer, less excitable, kinder, and more responsible. These changes are found around the world, perhaps because all societies encourage these trends, or perhaps because evolution selected for this developmental pattern.

Do creative writers depict long-term stability and gradual maturation in their characters? Yes and no. The protagonists of serial novels, like Fleming's James Bond and Chandler's Philip Marlowe, are obliged to stay in character across episodes, although it is not clear that they actually age. A few novelists have depicted the lifecourse of their characters (Balzac's Eugénie Grandet, Mann's Thomas Buddenbrooks), and continuity is the rule in these instances. The most notable examples of personality stability occur despite dramatic life events: Scarlett O'Hara remains vivacious and egocentric through war and peace; Ilya Ilyich Oblomov rises briefly from his lethargy under the spell of love, but soon sinks back into it.

But stability is less interesting than change, and writers tend to depict life- and soul-changing events. Novels of the *Bildungsroman* genre, in which adolescents achieve adulthood, are generally consistent with the observed pattern: The largest changes in personality do occur in the decade of the 20s, and the overall direction is usually toward psychological maturity, from personal doubt and conflict to a more stable and altruistic integration with society. Other novels, however, have less empirical support. Mid-life crises (like that of Bellows's Herzog) are common in literature, but rare in real life (McCrae & Costa, 2003). Radical transformations of personality, although they may occur (or may be perceived to have occurred), are usually transient in nature (Herbst, McCrae, Costa, Feaganes, & Siegler, 2000). Had Dickens been striving for verisimilitude, he would have ended his fable on Christmas day; a year later, a real Ebenezer Scrooge would likely have reverted to his prototypically disagreeable self.

Heritability

Behavior genetic studies (see South, Reichbom, Eaton, & Krueger, this volume) compare traits in people with known genetic relationships in an attempt to determine whether and to what extent traits are influenced by genes and by the environment (and, occasionally, their interaction). Hundreds of studies have now been reported, using

different instruments, different kinship designs, and different samples (e.g., Japanese, German, Canadian). The results are easy to summarize, because virtually all studies come to the same conclusions, and they are the same for each of the five factors (Bouchard & Loehlin, 2001): (1) About half of the variance in personality traits in any given population is determined by genes; (2) the shared environment—what children raised in the same family all experience, such as diet, discipline, parental role models, neighborhood and schools, religious training—has almost no effect on adult personality traits (although it likely has an effect on behaviors, especially in adolescence; see Burt, McGue, & Iacono, 2010); and (3) the rest of the variance is currently unaccounted for. It may include idiosyncratic experiences of different children in the same family, peer influences, the prenatal environment, specific illnesses, or simple error of measurement in assessing the traits.

As adults, monozygotic (identical) twins strongly resemble each other on all five factors (and on the specific facets they summarize; Jang, McCrae, Angleitner, Riemann, & Livesley, 1998), whether they were raised together or separated at birth and raised in different households (Tellegen et al., 1988). By contrast, adoptive siblings raised by the same parents in the same environment do not resemble each other beyond chance. These well-replicated results are perhaps the most surprising discovery of modern personality psychology, because they run counter to almost all classic theories of personality, which attributed personality development to interactions with parents or traumatic events experienced in childhood (Scarr, 1987).

They also run counter to conventional wisdom, which holds parents responsible for their children's character (McCrae & Costa, 1988). This collective error is understandable for two reasons. First, parents do have great influence over some aspects of their children's behavior—their religious beliefs, their dietary preferences, their native language. It is easy to see why one would assume they also determine their children's chronic levels of anxiety or need for achievement—though this assumption is wrong (McCrae & Costa, 1994). Second, it is impossible to tease apart the influences of nature versus nurture when looking at any single child, or indeed at any single family. The story is told of identical twins raised apart who were both high in Conscientiousness. The first attributed it to his mother's example and her rigid insistence on order and discipline; the second to *his* mother's sloth and disorganization, which compelled him to develop self-discipline and order in compensation. Both twins provided plausible environmental explanations, but considered together, a

genetic account is more likely. Scientific research sometimes gathers data that are simply not available to lay observers.

It is not surprising, therefore, that the twins of literature are not accurately portrayed. In *The Comedy of Errors*, the plot revolves around the fact that the twins, separated at birth, show a confusingly similar physical appearance, but quite distinct personalities. Although Bardolators may imagine he is an infallible guide to psychology, Shakespeare either did not understand the heritability of personality traits, or chose to ignore it for comedic purposes. The evil twins of much lesser literature are also better understood as useful plot devices than as insightful psychology.

Gender Differences

All societies assign different roles to men and women, and almost all literature portrays women and men differently. Are these groundless stereotypes? If there are real differences in personality traits, how large are they? And where do they come from—are they the creation of patriarchal social institutions, or a feature of human nature? Personality psychologists have answered most of these questions. Certainly there are gender stereotypes—assumptions about how men and women differ—and they are shared around the world (Williams & Best, 1982). By and large, however, these beliefs have a basis in fact. Using self-report personality inventories, women (on average; there are of course many exceptions) describe themselves as higher in both Neuroticism and Agreeableness than do men; women are warmer, men more assertive; women are especially open to aesthetics, men to ideas (Costa, Terracciano, & McCrae, 2001). Much the same pattern of results is seen when knowledgeable informants describe the personality traits of men and of women, and this is so whether the informants are themselves male or female (McCrae, Terracciano, & 78 Members, 2005). These findings have been replicated around the world (Schmitt, Realo, Voracek, & Allik, 2008). All these results point to the likely conclusion that there are real gender differences that are characteristic of the human species. Lay stereotypes, as a general rule, reflect this reality.

However, stereotypes tend to exaggerate differences (“men are from Mars, . . .”) whereas contemporary research shows that the magnitude of gender differences in personality traits is rather small. Some women are more assertive than most men; some men are warmer than most women. Table 4.1 includes examples of both men and women at each pole of each factor, but a much more

detailed examination of gender portrayals would be needed to determine whether the traits novelists and playwrights ascribe to men and to women show stereotypically large or realistically small differences—or no differences at all.

Universality

Until recently, almost all psychological research was conducted in Western nations, and it was an open question how well findings generalized to other cultures. A small group of psychological anthropologists and cross-cultural psychologists raised the possibility that Western conceptions of the self and the whole of Western psychology might not be applicable to individuals from traditional cultures, where the group—family, clan, community—was the locus of psychology (Markus & Kitayama, 1991; Shweder & Sullivan, 1990).

With the rise of the Internet, it became possible to test these ideas on a large scale, and the results, at least in the case of personality psychology, were clear. The FFM was found in cultures ranging from India to Iceland to Burkina Faso (McCrae, Terracciano, & 78 Members, 2005); gender and age differences were universal (Costa et al., 2001; McCrae et al., 1999); the heritability, reliability, and cross-observer validity of scales were much the same in all cultures examined (McCrae, Kurtz, Yamagata, & Terracciano, 2011). In a series of studies comparing cultural and trait perspectives on the operation of traits in predicting beliefs and behaviors, Church and Katigbak (2012) concluded that culture modifies the expression of traits, but that trait psychology itself is transcultural.

These conclusions probably come as no surprise to those who have read widely in world literature, or to aficionados of foreign films. Reading is often recommended as a way to broaden one's perspective and transcend the narrow boundaries of one's own culture, but it also implicitly teaches the "psychic unity of mankind." Universal motives of love, greed, and revenge are shown, but so are universal patterns of individual differences. Scheherazade outlived her predecessors because her exceptionally high level of Openness to Experience gave her a fertile imagination. Kurosawa's seven samurai have distinctive personalities that are readily intelligible to Westerners.

Animal Analogues

In the mid-20th century, when Behaviorism was the dominant school of psychology, researchers were warned against the intellectual sin of anthropomorphism: attributing human characteristics to nonhuman animals (radical

behaviorists didn't even attribute them to humans). However, research on animal personality, using the same observer rating techniques that can be used on fictional humans, clearly demonstrates that there are consistent and enduring individual differences in dogs and cats (Gosling & John, 1999) as well as in primates (King, Weiss, & Sisco, 2008). The structure of personality is not identical across species—for example, Dominance appears to be a separate factor for some species (King, Weiss, & Farmer, 2005)—but factors resembling Neuroticism and Extraversion are found in many species (Gosling, 2001).

Pet owners have always believed that their companion animals have distinct personalities, as species, breeds, and individuals. Animal characters have also figured prominently in literature, from Aesop's fables to Self's *Great Apes*. In part, this illustrates the ability of literature to transcend mundane reality, but current research confirms that it may also demonstrate the psychological acumen of storytellers. It is sheer fantasy to attribute literary aspirations to a cockroach, but it is within the bounds of scientific plausibility to suppose that a cat might share personality traits with Marquis's (1927) Mehitabel.

Utility

Most research on personality traits concerns their correlates: Beliefs, interests, aptitudes, habits, and activities that are associated with, and thus predictable from, personality traits. Virtually every aspect of human existence is affected by traits, from sex (Costa, Fagan, Piedmont, Ponticas, & Wise, 1992) to drugs (Brooner, Schmidt, & Herbst, 2002) to rock-and-roll (Rentfrow & Gosling, 2003). It is because traits have pervasive and significant impacts on people's lives that trait psychology has become an essential part of the study of industrial/organizational, clinical, developmental, and health psychology.

It would therefore be extraordinary if personality traits were not also useful in understanding literary styles and reader's tastes. Such topics, however, are rarely researched, and the literature offers only a miscellaneous assortment of findings. Pennebaker and King (1999) reported small but interpretable correlations between writing styles in student essays and FFM traits; for example, writers high in Openness used longer words; those high in Neuroticism expressed negative emotions. Writers high in Neuroticism also referred more often to themselves and avoided the words *ought* and *should* (Argamon, Koppel, Pennebaker, & Schler, 2009). Djikic, Oatley, Zoeterman, and Peterson (2009) reported an experiment in which a Chekhov story (temporarily) changed readers'

self-perceptions of FFM traits. Thomas and Duke (2007) found evidence of more cognitive distortions in the works of depressed writers (presumably high in Neuroticism) than of nondepressed writers. Pexman, Glenwright, Hala, Kowbel, and Jungen (2006) found that children, especially older children, use trait information to interpret verbal irony: Mean (i.e., disagreeable) people make sarcastic remarks.

These are intriguing findings, but it would be fair to say that a systematic study of the relations between personality traits and literature (fiction and nonfiction) has not yet been undertaken. In particular, scholars in the tradition of Reader-Response Criticism (Jauss, 1982) might profitably investigate how FFM traits affect the ways in which readers understand and appreciate literature (Miall & Kuiken, 1995).

THE STORY: A THEORY OF TRAITS IN OPERATION

In isolation, the FFM is simply an organized list of characteristics. Even knowledge about heritability, universality, and other trait characteristics does not in itself give a coherent sense of what people are like and how traits fit into a conception of human nature. For that, a theory is needed, and personality psychology has no lack of theories.

To put this topic in perspective, it may be helpful to begin by pointing out that the conceptions of personality commonly held by contemporary psychologists form a fairly narrow slice of the possibilities that have been entertained by human thought. Some metaphysical views (e.g., Tagore, 1917; Weil, 1986) see personality as an ineffable entity that defies scientific analysis. In classical Indian views, personality exists beyond the boundaries of the present life, carrying with it accumulated karma. At the other extreme, personality can hardly be said to exist at all for poststructuralist theorists, who reduce the person “to an intersection of discourses and a constellation of subject positions” (Falmagne, 2004, p. 835).

Many contemporary writers within the humanities seem to have adopted the notion that personality is somehow a recent creation (c.f. Gemin, 1999). Historian Michael Wood (2001) warned of “the danger of anachronism in trying to make ‘modern’ judgements about medieval personality” (p. 148). And Bloom (1998) has boldly declared (without much explanation) that Shakespeare so transformed consciousness as to have invented “the human.”

Such chronocentric views are not shared by most personality psychologists. Research on other species shows that personality traits evolved before human beings, and there is every reason to think that the FFM characterized people in Homer’s day as much as today. It is surely possible that people’s conscious understanding of themselves has evolved over time, just as the language of traits has (Piedmont & Aycock, 2007)—perhaps even because of the insights of great writers. But if we used H. G. Wells’ time machine to visit our ancient human ancestors, we would probably have little trouble understanding them in terms of our own psychology.

Classical and Popular Personality Theories

Psychological accounts of personality, human nature, and individuality are given by the personality theorists familiar to any college psychology student—Freud, Skinner, Maslow, Cattell, and the rest. Traditionally, these theorists are grouped into schools, usually psychoanalytic (or more broadly, psychodynamic), behaviorist, humanistic, and trait psychologies. Because these classic theories continue to be taught (as Latin and Greek were routinely taught until the 20th century), most educated laypeople—including most specialists in the humanities—assume that they are still accepted models of personality. In fact, they have been selectively abandoned or transformed in contemporary personality psychology.

Three of the schools—behaviorist, humanistic, and trait—have flourishing descendants. Behaviorism, which emphasized the experimental analysis of behavior and the conditions that shaped it, reemerged as the social-cognitive perspective (Cervone & Shoda, 1999), in which people are seen to learn from life experiences and to shape their lives through plans, goals, and self-management. Social-cognitive personality theory is, in a sense, a humanized form of behaviorism; and humanistic concerns with personal growth and psychological well-being have been taken up by positive psychologists (Sheldon, Kashdan, & Steger, 2011). Trait psychology has given rise to the FFM, research establishing a body of facts about how traits function, and a new generation of personality theories that account for these facts (McCrae & Costa, 1996). We outline one of them below.

Psychoanalytic theories also have modern-day descendants (see Bornstein Denckla, & Chung, this volume), including self-psychology, object relations theory, and especially attachment theory (Shaver & Mikulincer, 2005), where much current research is focused on trait-like attachment styles (Shaver & Brennan, 1992). However, modern

psychodynamic approaches are far removed from the orthodox psychoanalytic theories of Freud and Jung that remain influential in literary theory (e.g., *PsyArt: An Online Journal for the Psychological Study of the Arts*; www.clas.ufl.edu/ipisa/journal/index.shtml). Full-scale psychoanalysis, with daily sessions on the couch, is rarely used as psychotherapy today (see Shedler, 2010, and the subsequent Comments in *American Psychologist*, 66 [2], for the status of psychodynamic psychotherapy more broadly). Research has shown that dreams are not the products of unconscious conflicts (Domhoff, 1999). Bornstein and colleagues noted that there is “little evidence for the Oedipal dynamic as Freud conceived it” (Chapter 3, this volume, p. 47), and the term “Oedipus complex” does not appear in the index to the thousand-page *Handbook of Attachment* (Cassidy & Shaver, 2008). *Oedipus Rex* is great literature, but it is no longer considered a sound basis for psychiatry.

Freud (like many other thinkers before and since) was correct in pointing out that sexuality is an important part of human life, that human beings are not purely rational in their decision-making, that most psychological problems are manifested in disruptions of interpersonal relations, and that a supportive relationship in which individuals can reflect on their behavior can be very helpful. To the extent that modern clinical psychology incorporates these insights, it can be called psychodynamic. But those views are also compatible with many other, nonpsychoanalytic theoretical perspectives.

Vaguely psychodynamic thinking permeates popular psychology. Although the details naturally vary from best seller to best seller, the gist of most popular psychology is that people’s problems come from a life history of stressful events or suboptimal environments, and that understanding the origins of one’s problems, or changing one’s circumstances, or adopting new attitudes can dramatically alter one’s psychological health and happiness. Certainly, traumatic events often have psychological consequences, some of which endure for years: Posttraumatic stress disorder is now a familiar diagnosis. But popular psychologies typically neglect the facts that most psychological problems are deeply rooted in the nature of the person him- or herself, and that most therapeutic interventions bring modest improvements only after long and arduous work (McCrae, 2011).

An Evidence-Based Theory of Personality

Recently, several personality psychologists have formulated new theories of personality that are informed by what

has been learned about traits (McAdams & Pals, 2006; Roberts & Wood, 2006). In particular, Five-Factor Theory (FFT; McCrae & Costa, 2008b) proposes that personality should be construed as a system, with inputs from biology (*Biological Bases*) and from the social environment (*External Influences*), and an output stream of action and experience (the *Objective Biography*). There are two major components within the system: The set of psychological proclivities, including FFM personality traits (*Basic Tendencies*), and the set of acquired features, such as skills, habits, tastes, and interpersonal relationships (*Characteristic Adaptations*). A particularly important subset of the latter is composed of beliefs, feelings, and stories about oneself (the *Self-Concept*). These components and their organization are diagrammed in Figure 4.1.

The details of FFT and the supporting evidence are presented elsewhere (McCrae & Costa, 2003, 2008b). For the present purpose, it suffices to point out that personality traits themselves are hypothesized to be features of the organism, not results of life experience. In this respect, they resemble the phlegmatic, choleric, sanguine, and melancholic temperaments of antiquity. FFT, however, holds that they are shaped by genes, not humors, and by other conditions that affect the brain (e.g., drugs, neurological disorders). Personality changes, according to FFT, mainly because the brain matures, mostly in adolescence. Isolating traits from external influences—although it runs counter to classic theories as well as much folk psychology—explains why individual differences are so stable across the vicissitudes of life, and how the same traits can be found in radically different cultural settings.

This certainly does not mean that the environment is irrelevant to personality. Traits are the psychological raw material that must be expressed in culture- and situation-specific ways. Life experience interacts with personality traits to shape the beliefs, values, and routines that form the lifestyle we observe in ourselves and others; these beliefs, values, and routines interact with the immediate situation to produce the actions and reactions of any given moment. Behavior is thus an indirect reflection of personality traits in a social context, just as plot is the expression of character in a given dramatic situation.

Among the most important Characteristic Adaptations are those that involve the self, designated in Figure 4.1 as the Self-Concept. This includes the beliefs about ourselves that that we rely on when completing personality questionnaires; discrete autobiographical memories (say, drinking tea and eating madeleines as a child); and self-esteem or self-loathing. McAdams (1993) and other students of the life narrative have argued that people do not think of

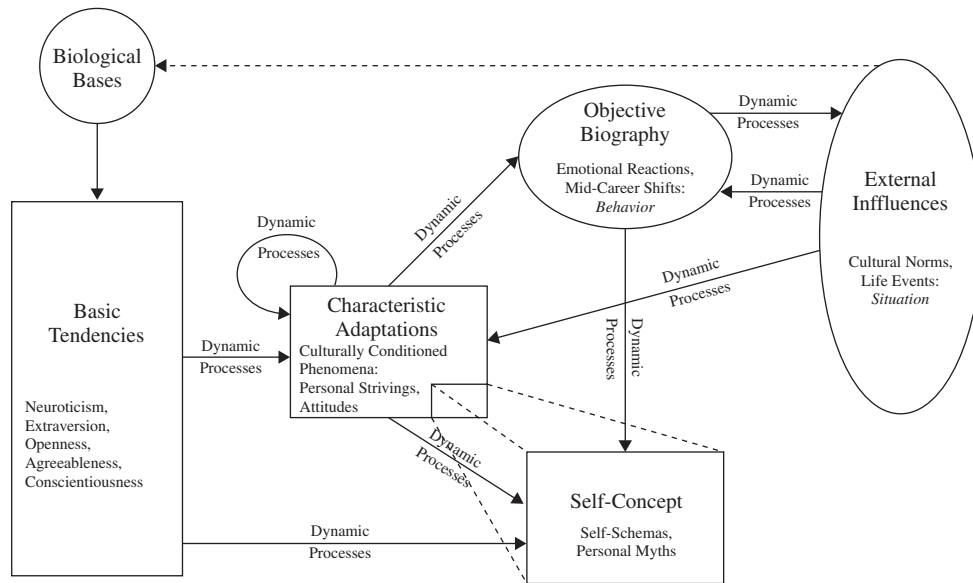


Figure 4.1 A representation of the Five-Factor Theory personality system. Core components are in rectangles; interfacing components are in ellipses. Adapted from McCrae and Costa (2008b)

themselves merely as an abstract list of traits or past behaviors, but by way of a life story that summarizes and gives meaning and purpose to their lives. Life narratives can be analyzed just as fictional narratives are, in terms of character, plot, tone, theme, and so on. Literature may help shape the individual's personal narrative, just as the life story of a novelist may be reflected more or less transparently in his or her work. It is at this level of personality, one step removed from FFM traits, that the connection between psychological fact and literary fiction is perhaps most direct.

Figure 4.1 is strewn with arrows labeled “dynamic processes,” which is FFT’s acknowledgment of the fact that personality is not a static entity, but a functioning system. For example, people high in Conscientiousness somehow eventually come to have a self-concept that incorporates the view that they are hardworking, competent, and organized. This might happen in many different ways: by observing their own behavior and comparing it to that of others; by introspecting on their goals and strivings; by hearing it from friends or reading it in job evaluations. By and large, trait psychologists do not study these dynamic processes; they are chiefly concerned with the end result. In contrast, social-cognitive personality psychologists and social and clinical psychologists focus on the details of these dynamic processes, often in the hope of finding ways to modify them and produce more adaptive and satisfying outcomes. The essence of the psychological novels of Dostoyevsky, Stendhal, and Conrad is the exploration

of these ongoing processes by which ideas are formed, sentiments grow and fade, and relationships alter—how personality functions in time.

THE VALUE OF LITERATURE FOR PSYCHOLOGY

Keith Oatley, himself a novelist (*A Natural History; Therefore Choose*) as well as a psychologist, has argued that fiction serves an important psychological function for the reader by simulating social experiences (Mar & Oatley, 2008; Oatley, 1999). Readers can learn vicariously from the experience of characters, develop empathy and an understanding of emotional responses in themselves and others, and broaden their appreciation of individual differences.

To be useful in this way, fiction (at least some fiction) must provide a relatively accurate portrayal of persons and their reactions to events, and there is reason to believe that it does. To survive, social animals must understand at some level why they act as they do and how others will respond to their actions, so humans must have evolved the capacity to think psychologically and to communicate their insights to others (Oatley & Mar, 2005). As lexical studies show, human languages have developed words for a great many scientifically documented personality traits, and laypersons have an intuitive, if imperfect, grasp of the FFM (Sneed, McCrae, & Funder, 1998). If all humans have some facility in understanding and communicating

psychological truths, it is reasonable to suppose that a small group of exceptional individuals may excel in divining and portraying human nature, and that the intuitions of these great writers may at times outstrip current scientific knowledge. This view is widely held in the humanities, and occasionally shared by social scientists (e.g., Levitas, 1963).

Sometimes, however, the intuitions of even the greatest writers are wrong or are sacrificed to other artistic goals—as in Shakespeare’s portrayal of identical twins in the *Comedy of Errors*. Casual readers are easily misled in these cases, often believing whatever a good storyteller says, unless it flatly contradicts their personal knowledge (Gerrig, 1998, cited in Oatley, 1999). If fiction is to be used not as a means of personal growth, but as a resource for scientific psychology, it seems clear that the insights of novelists must be considered simply as hypotheses to be tested, and that the portrayals of personality in fiction must be construed as a fallible, albeit potentially useful, source of information. One can, and must, ask about the construct validity of data derived from this literary method.

Psychologists already use fiction for some purposes. Todd (2008) studied group discussions of novels to investigate the psychology of reading. Pennebaker and Ireland (2008) used computerized text analysis to study psychological states in characters and authors. Emotion researchers often show Hollywood films to evoke specific affects they wish to study. Students of person perception routinely devise vignettes to serve as standard stimuli for the judgments of their experimental subjects. (These mini-stories are, strictly speaking, fiction, although of dubious literary merit.) Some social psychologists believe that the content of literature merits study: Contarello and Vellico (2003) examined cultural concepts of the self by analyzing a novel by Indian author Anita Desai.

Personality psychologists can also benefit from a consideration of personality in literature. Studies of the life narrative—an aspect of the self-concept—have been powerfully influenced by literary theory (McAdams, 1993), and research in this field provides a model of how aspects of fictional stories—plot, theme, tone—might be related to the personality traits of authors or characters (McAdams et al., 2004). Social-cognitive personality psychologists concerned about the mechanisms by which personality is expressed might test hypotheses based on the minutely described sequence of feelings and ideas so compellingly portrayed in great novels. Directly after confessing her affair to her husband, Anna Karenina experiences only a sense of relief that the secret is out. But the next morning in quick succession she feels shock, shame, despair, and

terror; she envisions her life as an outcast, doubts that her lover’s devotion will last, and becomes disoriented: “She felt as if everything were beginning to be double in her soul, just as objects sometimes appear double to over-tired eyes. She hardly knew at times what it was she feared, and what she hoped for” (Tolstoy, 1877/1950, p. 342). Are these in fact common responses to a disclosure of guilt? Is the time course and order of reactions realistic? Are such experiences universal, or are they limited to individuals with particular personality traits, such as high Neuroticism or Openness? Such questions are of more than academic interest to clinical psychologists, especially in view of the ultimate outcome depicted in *Anna Karenina*.

Personality Assessment for Fictional Characters

Judgment of characterization is admittedly a subjective business. For what my opinion is worth, I would say that Odysseus, Nestor, Agamemnon, Menelaos, Helen, and Achilles are the same “people” in both poems. Those qualities that mark the Odysseus of the *Odyssey*—strength and courage, ingenuity, patience and self-control—all characterize the same hero in the *Iliad*.

—Lattimore, 1975, p. 19

Trait psychology has an obvious entrée into the study of fiction: Literary figures have character. The problem, which is faced by both psychologists and literary critics, is how characters’ personality is to be conceptualized and assessed. Literary scholars typically use their own intuition to formulate descriptions. A few psychologists have used empirical, but ad hoc, methods. Nencini (2007) used text analysis to identify dimensions of the self (emotions, material self, relationships) for the protagonist of Tabucchi’s *Sostiene Pereira*. Dotson (2009) provided his own judgments about several characteristics (e.g., obsessive, withdrawn, timid, too career-focused) in 80 fictional portrayals of physicists. These methods are not readily generalizable.

What is needed is a standard set of personality traits that encompass the full range of characteristics found not only in fictional physicists, but in all characters in literature, and the obvious choice is the FFM. One might argue that, in principle, the men and women of fiction might have more or fewer personality trait factors than real men and women, just as dogs and chimpanzees have more or fewer factors than humans (Gosling & John, 1999; King & Figueredo, 1997). But surely the FFM is the most reasonable place to start in assessing personality in fiction.

One landmark project has adopted this approach. In an Internet study, Johnson, Carroll, Gottschall, and Kruger

(2008, 2011) recruited 519 individuals with interest or expertise in 19th-century British literature (32% had doctorates, presumably in English). Respondents were asked to select one or more characters from 143 Victorian novels (from Jane Austin to E. M. Forster) and to complete an online questionnaire to describe each character; the survey included a ten-item measure of the FFM (Gosling, Rentfrow, & Swann, 2003). A total of 435 different characters were rated, some by multiple raters. Results appeared sensible. For example, Jane Eyre was rated as being conscientious and introverted; Catherine Earnshaw (from *Wuthering Heights*) was thought to be low on Agreeableness and high on Neuroticism.

These studies provide some answers to the most basic questions about personality in fictional characters. First, a factor analysis of the 10 personality items showed the five expected factors (Johnson et al., 2008). It appears that the FFM does indeed describe the personality of literary figures, at least those in Victorian novels. Second, a comparison of scores for the 206 characters with two or more raters showed cross-observer agreement for all five factors: Neuroticism (intra-class correlation = .50), Extraversion (.60), Openness (.44), Conscientiousness (.56), and especially Agreeableness (.74; J. A. Johnson, personal communication, November 19, 2010). These values substantially exceed what is typically found for peer ratings of real persons: In a study of undergraduate friends using a version of the same brief instrument (Vazire, 2010), the corresponding correlations were .36, .40, .26, .33, and .37 (S. Vazire, personal communication, November 27, 2010). In one sense this is unremarkable, because two readers of a novel have identical information about the character, information that typically includes not only overt behavior, but also private feelings and motives revealed by the author. In another sense, this is an important finding, because psychologists (and some reader-response critics) have often focused on the idiosyncratic responses of different readers to the same text. These data underscore the common perceptions of readers (Nencini, 2010); they show that personality traits in fictional characters can be consensually validated.

Johnson and colleagues (2008, 2011) also gathered data on other attributes of the characters—their role in the novel, their personal goals, their romantic styles. In a series of analyses, the authors related these attributes to FFM factors and compared their findings to patterns found in the empirical literature. For example, they reported that, as in real life, characters high in Openness to Experience were motivated by interests in creativity and discovery; those low in Agreeableness had a strong need for power.

They concluded that “authors’ depiction of the workings of personality . . . largely mirrors the view . . . as revealed by modern research. Victorian authors do seem to be good intuitive psychologists” (Johnson et al., 2011, p. 56).

There were, however, some differences. In most research, there are reliable gender differences in personality, with the largest effects found for Neuroticism and Agreeableness; women score about one-half standard deviation higher than men on both factors (Costa et al., 2001). Feminist literary critics might have anticipated that Victorian novels, reflecting sexist stereotypes, would exaggerate these differences, but instead Johnson and colleagues (2011) found very small gender differences, with women only marginally more agreeable than men. The authors speculated that this finding was part of a pattern in which protagonists, including men, were portrayed as being cooperative and egalitarian. From a Darwinian point of view (Gottschall & Wilson, 2005), the function of fiction may have been to model the kind of group solidarity that had been essential for the survival of our hunter-gatherer ancestors.

Clearly, other interpretations are possible, and we do not yet know if these results would be replicated in other samples of fiction (say, Latin-American novels or Chinese films). It is also possible that the 10-item personality measure was not sufficiently sensitive to capture the relatively small differences between men and women. But even if longer measures of the five factors had been used (e.g., the Big Five Inventory; Benet-Martínez & John, 1998), the results of this study would have been chiefly valuable for making generalizations about groups. Individual characters, the focus of interest for most literary scholars, can only be crudely sketched by five scores. A more nuanced picture is needed, such as that provided by the 30 facets of the NEO Inventories.

That system is of value first in conceptualizing at a relatively fine-grained level the full range of personality traits. Raters who understand the concepts embodied in the NEO facets ought to be able to apply them to fictional characters. As a demonstration project, two personality psychologists well acquainted with the traits assessed by the NEO Inventories (RRM and C. E. Löckenhoff) estimated the standing of Goethe’s Faust on each of the 30 NEO facets. RRM had recently read *Faust* in English translation; CEL had studied it in German some years before. Both gave *T*-score estimates for each facet comparing Faust to adult males in general; scores below 35 are considered very low; 35 to 44 low, 45 to 55 average, 56 to 65 high, and scores over 65, very high. RRM averaged the six facet scores for each factor to

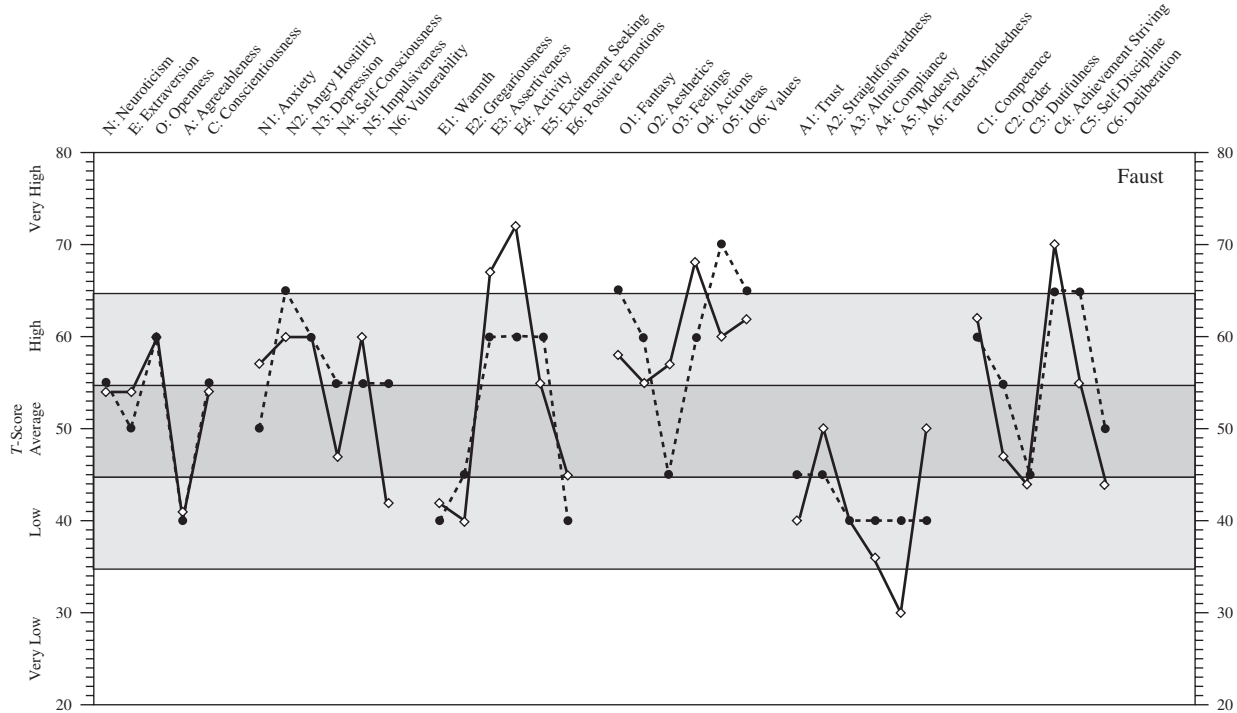


Figure 4.2 Ratings of Goethe’s Faust by RRM (solid line) and CEL (dashed line)

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estimate the factor *T*-score; CEL estimated the factors directly.

Figure 4.2 shows the results, plotted on a NEO Inventories profile sheet. In the figure, the five factor scores are given on the left, followed toward the right by the 30 facet scales, grouped by factor. Factor and facet labels are given at the top of the figure. It is clear from the figure that there is quite substantial agreement between the two raters.³ Both see Faust as high in Openness to Experience and low in Agreeableness, but average, on the whole, in the other factors. Looking only at these five factors, it would be hard to imagine that this is the profile of one of the most arresting figures in world literature, one who inspired symphonies by Liszt and Mahler, operas by Berlioz and Gounod. The fascination of the character is more understandable when specific facets are examined. Faust’s arrogant impatience with others is seen in his high N2: Angry Hostility, low E1: Warmth, and low A5: Modesty; his restless striving for some higher level of being is seen in his high E4: Activity, O5: Ideas, and C4: Achievement

Striving. Faust as alienated seeker becomes a prototype of Romantic heroes.

From the perspective of personality assessment, perhaps the most important fact about Figure 4.2 is the convergence of two independent raters. Both raters could, of course, have written essays describing Faust’s personality, and they could have compared notes to see if they agreed or disagreed. But such discussions are “a subjective business,” as Lattimore noted. An important advantage of assessment on standard criteria (here, the 30 NEO facets) is that agreement can be quantified. A simple Pearson correlation across the 30 facet scales shows profile agreement of .76, a value that is not only statistically significant ($p < .001$), but is in fact higher than the agreement seen between about 90% of cases when real self-reports are compared to the ratings of knowledgeable observers (e.g., spouses; McCrae, 2008).

Further, profile agreement statistics (McCrae, 1993) make it possible to identify specific areas of disagreement. In Figure 4.2, the two raters essentially agreed on 28 of the facets (the best guess assessment would therefore be the average of the two ratings), but disagreed on N6: Vulnerability and O3: Feelings. In clinical assessment, the recommended course here is to ask informants to reconsider

³Apparently Faust’s personality is preserved in translation—a fact that might surprise poets, but not personality psychologists, who understand the universality of personality traits.

the areas of disagreement. In this case, CEL recalled the famous lines expressing Faust's emotional ambivalence ("Zwei Seelen wohnen, ach! in meiner Brust . . ." ["Two souls, alas! reside within my breast . . ."]) and raised her estimate of his Openness to Feelings (C. E. Löckenhoff, personal communication, July 11, 2010).

An obvious limitation of this case study is that neither of the raters can claim to be an expert on Faust, and those scholars who could make that claim would probably not understand the traits assessed by the NEO facet scales well enough to make meaningful *T*-score ratings. Fortunately, there is an available technology for translating lay views of personality into standardized scores: the personality inventory. This method has been used to describe historical figures (Cassandro & Simonton, 2010; Rubenzer, et al., 2000), and was used by Johnson and colleagues (2011) to describe characters in British novels. In this case, Faust scholars might be asked to complete the 240-item NEO Personality Inventory-3 (NEO-PI-3; McCrae & Costa, 2010). Below, we will illustrate its use on two figures from French literature.

The Uses of Literature in Trait Psychology

Fictional characters are of use to trait psychologists first as illustrations. Whether writing for professional colleagues, teaching psychology students, or addressing the general public, psychologists must be able to convey their basic constructs to others, and literary figures provide widely known and often striking examples of personality traits: This is, of course, the rationale for Table 4.1.⁴ Openness to Experience is the least easily grasped of the five factors, so McCrae (1994b) used the protagonists of Hesse's *Narcissus and Goldmund* as exemplars. Certain peculiarities of Goldmund's perceptual experience—such as seeing printed words morph into people and animals—vividly illustrate the permeable boundaries of consciousness found in highly open individuals, and probably convey much more to most readers than the phrase "permeable boundaries of consciousness."

Case studies, real or fictive, move beyond an abstract definition by showing how traits play out in real situations. Novelists are usually intuitive psychologists; they select actions for their characters not by consulting a list of personality correlates, but by imagining how such a person

⁴Condon (1999) illustrated concepts from a popular personality typology with characters from films; B. F. Skinner created his own characters in *Walden Two* to illustrate his psychological ideas.

would react in such a situation. These intuitions can be considered hypotheses, and, if confirmed, can add to the store of scientific knowledge. Consider Alexei Arsenyev, the narrator of Bunin's *Lika*. He is a young poet and romantic who embodies many of the characteristics of high Openness (McCrae, 1990). He is prone to impetuous travels, sometimes inspired by nothing more than the sound of the place-name. When the NEO Personality Inventory was revised (Costa, McCrae, & Dye, 1991), a new openness to feelings item was tested, suggested by Alexei's reactions: "Odd things—like certain scents or the names of distant places—can evoke strong moods in me." Item analyses confirmed that this is in fact a good indicator of openness to feelings, and it is included in the NEO Personality Inventory-3.

If characters in novels behave like ordinary human beings, researchers could use them as subjects in studies of any aspect of personality psychology. Johnson and colleagues (2008) in fact used data on the characters in Victorian novels to test hypotheses from evolutionary psychology. It is unlikely that this kind of study will become common, because it is usually simpler to collect data from live subjects. However, studies of personality psychology using literary surrogate samples may prove invaluable in dealing with populations that are otherwise inaccessible. One could, for example, ask about age differences in personality traits in Ancient Greece or pre-Islamic India—a kind of psychoarchaeology.

Studies of literature could also throw light on some of the most vexing questions faced by students of personality and culture. When personality questionnaires are administered to members of different cultures, consistent differences are found—for example, American and European cultures usually score higher on Extraversion than do Asian or African cultures (McCrae, Terracciano, & 79 Members, 2005). It is not clear, however, that these differences are real, because a score in one language may not be strictly comparable to the same score in another language. Assessed national differences are not, in fact, supported by common national character stereotypes (Terracciano, Abdel-Khalak et al., 2005). Most people believe that the British are reserved, but they actually score higher in Extraversion than most other cultures in the world. It is not clear which kind of data should be believed (although the weight of evidence is currently against national stereotypes; McCrae, Terracciano, Realo., & Allik, 2007). Analyses of national literatures might help resolve this issue.

At least one study has addressed that possibility. Allik and colleagues (2011) informally reviewed depictions of Russians in novels (and in scholarly works), and compared

the personality profile they inferred from these sources to questionnaire scores of 7,065 Russians on FFM personality traits. They found little resemblance. However, there was also little resemblance between the literary profile and ratings of national stereotypes from 3,705 Russian respondents (Allik et al., 2009). As the authors of these studies acknowledged, a limitation was the impressionistic summary of Russian literature. A stronger test of the hypotheses would use formal personality assessments of a much larger sample of Russian novels and characters—the sort of design Johnson and colleagues (2011) used with British novelists.

It is possible, however, that each national literature is more a reflection of the social values and customs—the national ethos (McCrae, 2009)—than of the people themselves. In fact, one of the classic studies of personality and literature attempted to infer culturally-prescribed need for achievement from the stories selected for use in grade school primers (McClelland, 1961). As yet, the only assessments of ethos in terms of the NEO facets are for the United States and Japan (McCrae, 2009), but studies of the personality traits of fictional characters in American and Japanese literature would make a fascinating comparison possible.

Trait psychologists need to use the materials of fiction very cautiously. There are legitimate reasons to doubt that fictional characters are faithful representations of human personality. Novelists rely on their own observations (and on what they have read), but their personal acquaintances are likely to be even further from a truly random sample than the college sophomores typically surveyed by psychologists. Relatively few novels were written by older men or women, but younger novelists cannot have had firsthand experience with lifespan development. The characters found in historical novels or science fiction may tell us something about the creative imagination, but it is impossible to know if they accurately reflect the operation of personality traits in situations we can never study directly.

Some limitations of fiction (from the perspective of a trait researcher) have to do with the nature of the art form. The dramatic tension of struggles between heroes and villains is central to much fiction, but it means that people strikingly high and low in Agreeableness are likely to be vastly overrepresented—which might explain the exceptionally high cross-observer agreement on this factor in the studies of Johnson and colleagues (2008, 2011). Characters high in Neuroticism (like the suicidal Laura Brown in Cunningham's *The Hours* or Goethe's sorrowful young Werther) will be preferred by novelists over those who

are low in Neuroticism, because terror, despair, and rage are more interesting than equanimity. Novelists and poets themselves are usually high in Openness (e.g., McCrae, 1993–1994), which is why literature is so rich a source of illustrations of that trait. In real life, people are usually more prosaic.

Writers must create characters who are understandable and with whom readers can somehow identify, but this does not necessarily imply psychological realism—magical realism works equally well. Even authors operating in the naturalistic tradition are guided by artistic as well as scientific considerations, and the accuracy of their portrayals is not subject to empirical test. Psychologists might understandably wish to avoid the ambiguities of this source of data on human personality.

However, fiction remains of interest and of value. It provides striking illustrations of traits, suggests testable hypotheses about how they are expressed in the world, and may, under some circumstances, provide data on otherwise inaccessible topics. Proponents of literary genius would go further: They would suggest that great writers have insights into human nature that may transcend any existing theories of personality and point to entirely new schools of thought. The possibility that this is so is one reason to include literature in the education of psychologists.

THE USES OF TRAIT PSYCHOLOGY IN THE HUMANITIES

The humanities—history, philosophy, and particularly literary studies—ought to take into account whatever is known about human nature, and personality psychology is surely an important contributor to that knowledge. In this section we outline some reasons why the humanities should focus on trait psychology, and illustrate its application to the analysis of characters from French literature.

Insight, Mystification, and Psychoanalysis

The voices of stones. The wall of a church and the wall of a prison. The mast of a ship and a gallows. The shadow of a hangman and of an ascetic. The soul of a hangman and of an ascetic. The different combinations of known phenomena in higher space.

—Ouspensky, 1920, Argument, Chapter XIV, *Tertium organum*

Oatley (1999) argued that whereas science sees truth in the correspondence between idea and fact, literature sees it in the internal coherence of the story and in its personal impact, an emotionally charged insight. If we are to

consider the possible value of trait psychology for understanding literature, it is useful to begin with an overview of the experience of truth in art.

Psychologists, like writers, are familiar with the concept of insight: the sudden understanding of a problem or the recognition of a previously overlooked pattern. Insight is an important feature of everyday problem-solving, but it is also a specialty of artistic creations, sometimes inducing chills, that hallmark of aesthetic experience (McCrae, 2007). Writers have long cultivated techniques designed to produce the experience of insight, including recognition scenes, epiphanies, and acute psychological observations (such as Anna Karenina's experience of a doubled soul).

Writers in fact deliberately create problems for the reader whose solutions can then be appreciated as insights. The whole genre of the mystery story is a transparent instance of this, one that requires no effort on the part of the reader beyond turning pages. More demanding are literary devices like classical references that require knowledge on the part of the reader, or metaphor and allegory, that the reader must make some kind of effort to grasp. In general, greater effort yields a stronger experience of insight.

By extension of this artistic strategy, authors may try to lure readers into ever deeper mysteries—Captain Ahab's "little lower layer"—with ambiguous symbolism or arcane allusions *à la* T. S. Eliot. If insight gives truth, and difficult insight gives greater truth, then the most profound truths must be those that can hardly be grasped at all (such as, according to devout Christians, the mysteries of the Trinity and the Incarnation). By *mystification* we mean the experience of truth as an anticipation of profound insight induced by artful obscurity. As a literary device, mystification is dangerous, because the effect falls flat when readers come to suspect that there is at bottom no real message. The quote from Ouspensky's argument given above (which, of course, he intended as mysticism, not mystification) is immensely evocative, but many readers would find that the chapter does not deliver a great new vision of the world. And yet literature as art is not required to deliver profound truths; if we suspend disbelief, we can be enthralled by sheer mystification. Truth, after all, is only one of many goals of literature, often less important than humor, social commentary, or moral persuasion.

The disciplinary familiarity that literary critics have with mystification may help explain the enormous attraction psychoanalytic theory has had for them. Aside from the drama of incestuous yearnings and murderous impulses, the most distinctive feature of classical psychoanalysis is its mystery. The theory postulates that people's

real motives and feelings are not only unconscious, but actively disguised. More than simple objectivity (such as one might get from a knowledgeable informant) is needed to penetrate these disguises; many years of decoding symbols may be required. Such a system has an obvious appeal to literary critics, who are accustomed to the patient unraveling of hidden meanings. What a boon to interpretation if the "little lower layer" could be located on the (allegedly) well-charted maps of the unconscious mind!

But Freud's seminal writings on the unconscious mind are more than a century old, and it would be extraordinary if psychological science had made no progress since then. It is perfectly appropriate for novelists and playwrights deliberately to incorporate Freudian ideas into their work, as many 20th-century authors did (e.g., surrealist poet André Breton, dramatist Eugene O'Neill)—they are, after all, primarily concerned with telling a good story. And where they have done so, it is of course incumbent on the critic to expound on this, just as scholars of the *Divine Comedy* must understand and explain Ptolemaic astronomy. But to interpret, say, the plays of Ibsen or stories of Poe in classic Freudian terms is to write fiction about fiction. Real scholarship requires a more current conception of psychology.⁵ For those with a taste for psychodynamic approaches, this means learning contemporary versions of psychoanalysis (Bornstein et al., this volume), as some critics have done (e.g., Benzon, 2003). Modern trait psychology provides another option.

Trait Psychology and Literary Criticism

Literary scholars can (and, we believe, should) familiarize themselves with FFM traits and the way they function in people's lives as a background to the understanding of any fictional character. FFM traits provide a convenient way to describe characters that is easily shared with other scholars and general readers. Because it is comprehensive, it permits a systematic approach that can call attention to aspects of the character's personality that might otherwise have been overlooked. Conformity of characters' actions to what is known about the operation of traits provides a way to assess the realism of the work and the psychological sophistication of the author.

But for many purposes, more than a general acquaintance with the FFM is needed; formal assessments of personality traits are required—a task that requires collaboration with psychologists versed in the administration, scoring, and interpretation of personality measures

⁵McAdams (2011) has made a parallel case for the need for up-to-date psychology in biographies.

(e.g., Johnson et al., 2011). Many literary scholars contribute to their discipline by conducting detailed studies of the chronology or geography of a novel, or the historical background of an author's work. It would also be a useful service to catalog the personality profiles of major characters. Selecting expert raters, comparing their ratings, and relating these objective assessments to conventional (sometimes conflicting) characterizations are worthy scholarly activities. Because the number of important literary figures is finite, one can envision the ultimate compilation of an encyclopedia of personality profiles from fiction as a resource for future scholars.

Personality researchers typically make generalizations based on samples of respondents, whereas clinical psychologists usually apply these generalizations to understand specific individuals. Literary studies might also operate on these two levels. The first, nomothetic, level consists of large-scale studies, based on new samples or summarizing existing data; they might examine such questions as:

- How are traits distributed in a given genre? Is it true, as suggested above, that novels overrepresent exceptionally open and highly disagreeable people in comparison to real-life samples?
- Can literary movements be characterized by the distribution of characters' traits? Is openness to ideas more salient in Enlightenment literature, with confrontations between the open- and closed-minded? Is openness to feelings more often emphasized in the Romantic period? Do novels of the 20th century, in W. H. Auden's phrase, depict an age of anxiety?
- How can the personality palette of an author be characterized? Does Thomas Hardy specialize in introverts? Mark Twain in extraverts? Do reputedly universal authors like Chaucer and Balzac in fact depict the full range of human traits?
- How do authors (or genres, or periods) differ in the *dimensionality* of their creations? A character whose personality can be summed up in a single trait term (and who is thus merely average on all other traits) is called "one-dimensional." Use of the FFM, and particularly a consideration of specific facets within each factor, could lead to a quantifiable measure of the multi-dimensionality of characters that could be used to address this question.
- How does an author's personality affect his or her portrayal of characters? Provided sufficient data are available about their lives and their relations to other people, authors can be rated on personality traits in the same

way as characters are, and the profiles of authors can be compared to the profiles of their creations. How often are protagonists autobiographical in this sense? How close are the resemblances in personality, and what distortions, if any, are common?

Johnson and colleagues (2011) asked the general question of whether trait psychology in fiction mirrors trait psychology in fact, and many more studies along those lines could be conducted, examining the stability or heritability or correlates of traits in the world of fiction. Whether the results would be of more interest to personality psychologists or to literary scholars may depend on the specific questions asked, but a body of findings would help define the relations between these two fields. Johnson and colleagues also noted that the kinds of studies mentioned here differ from most literary scholarship in providing quantified results that can be subjected to statistical test. Whether that will advance our understanding of literature remains to be seen.

Two Cases From French Literature

Only a few literary scholars are likely to be interested in such systematic studies of personality in fiction, but most will be concerned about characterizing individual figures. Case studies (corresponding to the second, idiographic, level of psychological studies, clinical interpretations) thus provide the most direct way for critics to use the FFM. Here we present as examples studies of two notable figures from French literature: Molière's Alceste and Voltaire's Candide. Clinicians may find this approach to understanding individual cases—in particular, the integration of assessments from multiple informants—useful for their work, too.

In *The Misanthrope*, Alceste repeatedly tries to present an ultimatum to the coquette Celimene, with whom he is smitten: If she wishes to continue to have his love, she must abandon her dizzying social life, empty her popular salon of suitors, and eventually follow him into a kind of exile in the far provinces. She deftly puts off the showdown by fobbing Alceste off time and again on other interlocutors, such as the would-be poet Oronte, the fops Acaste and Clitandre, the prudish Arsinoe, and her own cousin Eliante, who prefers the company of Alceste's best friend, Cleante. The latter is faithful and unselfish, offering to sacrifice his own feelings for Eliante in hopes of finding a more suitable match for his prickly friend than a deceiving social butterfly like Celimene. After the two friends discuss the diverse implications of misanthropy in

the early modern world, Alceste must confront a series of pesky interruptions: judge Oronte's insipid sonnet, read poison pen letters Arsinoe claims to have intercepted, and attend to legal affairs involving a potentially disastrous law suit that he refuses to take seriously. Alceste finally corners Celimene to explain the damning letters Arsinoe has shown him, only to have the lady escape his criticism and leave him begging for forgiveness. The clownish Acaste and Clitandre precipitate a crisis by publicly exposing duplicitous letters they have received from Celimene. Even *in extremis*, with her reputation destroyed, Celimene is unable to accept Alceste's final harsh offer of imposed isolation with him. In bitter spite, the misanthrope storms off stage, pursued by Eliante and Cleante, who will keep trying somehow to reconcile him with the human race.

Candide is a satire confronting philosophic optimism with harsh realities. Expulsed from his adoptive home in a shabby German castle because of his sexual curiosity about the baron's daughter, young Candide is shanghaied into the army and brutalized in a senseless war. As he falls into further misadventures, he is helped by the altruistic Anabaptist Jacques and reunited with his Leibnizian tutor Pangloss, who has instilled in him the view that this is the best of possible worlds. In Lisbon, Candide is nearly turned into a human sacrifice after the famous earthquake, but is saved by his erstwhile girlfriend, Cunegonde. Candide runs off with her to Argentina, but the unexpected intervention of Cunegonde's hostile brother ruins their New World refuge, forcing Candide into a duel and subsequent flight into the jungle, where he encounters first savages and then utopian natives who have fashioned a perfect civilization in the remote interior. Leaving this ideal world in search of his beloved, Candide discovers the horrors of colonial slavery in Surinam. After returning to Europe, Candide's entourage swells with the motley rejects of a dysfunctional society. As he reunites at last with a by-now frumpy Cunegonde, he finds himself in Turkey, where they establish a sort of pragmatist commune in an attempt finally to achieve some measure of order in their chaotic lives.

As a prelude to their FFM profiles, it would be worthwhile to consider how these characters have historically been viewed. Consider Alceste. Nicolas Boileau in his *Art poetique* epitomized *The Misanthrope* as the very best of the author's work. Boileau seems to have admired Molière's ability to create a central character who could exhibit the foibles of human nature while still maintaining an overall air of dignity. The bilious lover (subtitle to the play) was seen as a paragon of wit, possessed of a mind capable of being fooled only by itself. Alceste's good-bye

to the cruel world at the conclusion of the play eloquently expresses a common theme of 17th-century French lyric poetry, the flight to simple solitude away from the troubles and hypocrisy of civilized life. Boileau's opinion of the play became iconic through much of the following century.

However, by the time of the revolution, Alceste was taking on different colors. His disdain for society was translated into a disdain for the ancient regime. It was Jean-Jacques Rousseau who led the charge for this assessment, notably in his "Letter to D'Alembert" on the theater. Rousseau actually accused Molière of maligning his own protagonist by conspiring against Alceste's passion for honesty and frankness.⁶

Alceste was interpreted by the Romantic generations as a figure of sadness. Sainte-Beuve, Musset, and Hugo were among those who took this position. Indeed, the image of Alceste, plagued with *Weltschmerz* and precocious *mal de siecle*, came to dominate Molière's works in a way never before possible. The Moliériste movement of the late 19th century sought to return to a more naturalistic interpretation of Alceste, pointing out, for instance, that his character demonstrated similarity to some actual figures of Louis XIV's court.

Twentieth-century ideas about Alceste have enriched upon many of these early reactions. Rene Jasinski links Alceste to Jansenism, one of the dominant religious movements of 17th-century France. This view shows the possibility of associating Alceste's personality with deep philosophical and spiritual feelings, rather than just attributing his behavior to a quirky imbalance of humors.

Paul Bénichou, on the other hand, saw Alceste as a key figure in Molière's elaboration of a neo-aristocratic aesthetic. Alceste's impatience with modernity, his nostalgia for better times, his refusal to bribe judges in the despicable courts, all reflect an identification with chivalric honor of a bygone (or perhaps nonexistent) age.

North American sociocritics (Gaines, 1984) such as Larry Riggs, Ralph Albanese, and Max Vernet, also apply other approaches to the character of Alceste. Several have evoked an anthropological perspective on Alceste's relations both with the salon in the play and with the opposite sex. The play is structured around Alceste's desire to present and enforce an ultimatum to assure Celimene's absolute fidelity to him; his preoccupation with unfaithfulness goes to the heart of a drive for hegemony found in a

⁶Rousseau's sympathy for Alceste is understandable: Rousseau himself was high in Neuroticism and low in Agreeableness (McCrae, 1996).

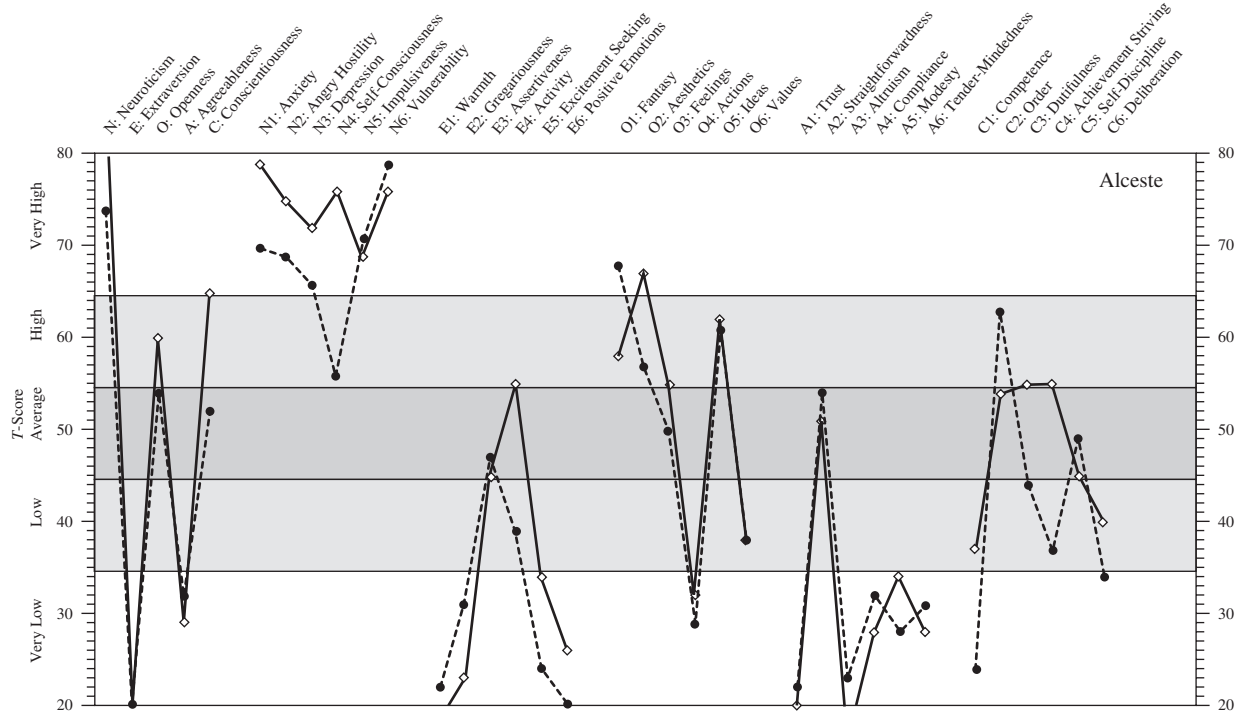


Figure 4.3 Personality profile for Molière’s Alceste. NEO-PI-3 ratings by JFG (solid line) and MAW (dashed line) are plotted against adult male norms.

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whole range of 17th-century institutions. At the same time, it is linked to an uncertainty of identity that constantly reverberates in his relationships with other characters in the play. Alceste seems extremely reluctant to assume an identity contingent upon the evaluation or recognition of others and is willing to accept complete solipsism as an alternative.

An FFM Perspective

Two expert raters (JFG and MAW) independently described Alceste and Candide using the NEO-PI-3.⁷ Both are professors of French literature, familiar with the works in both French and English translation; they have taught them in a variety of courses. JFG has published extensively on Molière (Gaines, 1984, 2002); MAW is a Voltaire scholar (Wellington, 1987). Their ratings comparing Alceste to adult men in general are shown in Figure 4.3. The two raters agreed very closely indeed: The correlation across the 30 facet scales was .91, and

ratings were essentially the same for 27 of the facets. Agreement was somewhat lower for Candide, whose profile, compared to adolescent males, is given in Figure 4.4. The correlation across the 30 facets was .66, $p < .001$, but the two raters disagreed on eight scales, most notably Extraversion and its gregariousness, activity, and positive emotions facets.

These ratings are surely sensible. Alceste, the bilious misanthrope, is very high in angry hostility, and very low in warmth, gregariousness, and all the facets of Agreeableness except straightforwardness. Candide, the gullible optimist-in-training, is very high in trust and low in anxiety; the wild adventures he embarks on are expectable from someone very high in openness to actions and very low in deliberation. As his name suggests, he is very high in straightforwardness.

These profiles thus demonstrate first of all that literary characters can be meaningfully portrayed by modern personality assessment methods. Further, the results show enough distinctiveness to be of use to researchers. Alceste and Candide are, of course, in many respects polar opposites, which is reflected in a correlation of $r = -.42$, $p < .05$, between the two adjusted mean profiles. Figures 4.3 and 4.4 are perhaps most interesting

⁷Some of the NEO-PI-3 items are anachronistic when applied to 17th-century personalities, but raters usually find it easy to imagine how the targets would have responded.

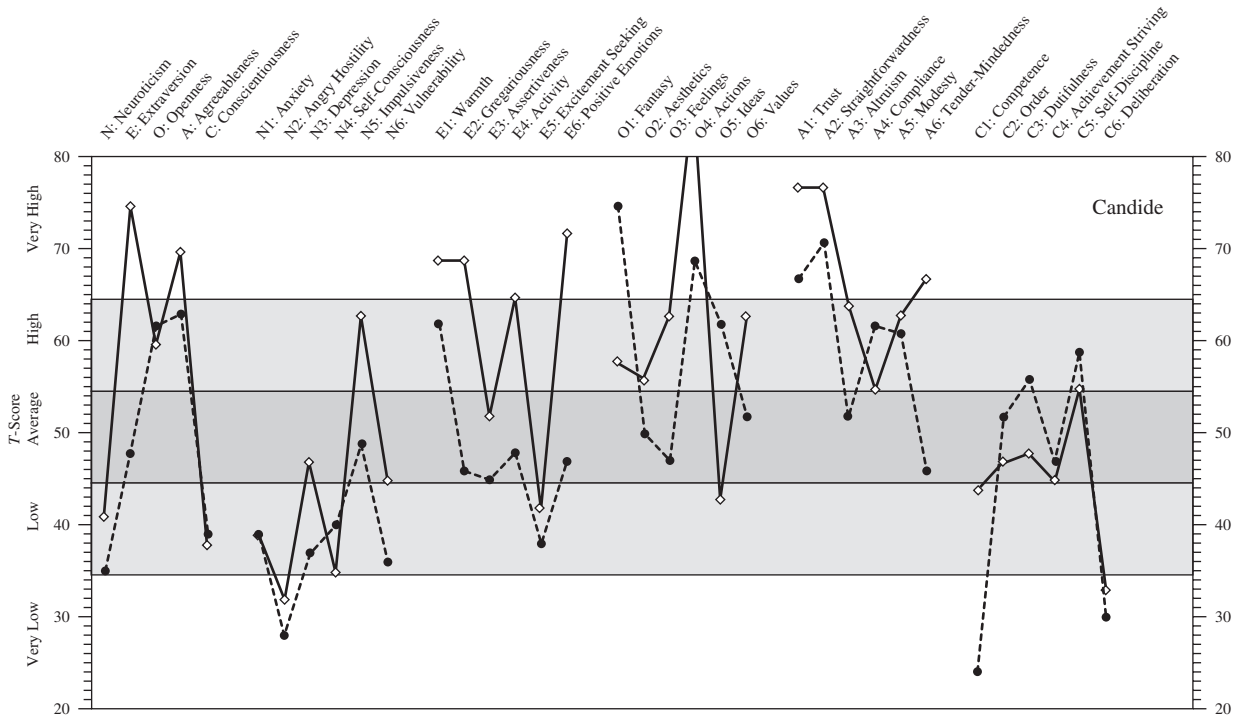


Figure 4.4 Personality profile for Voltaire's *Candide*. NEO-PI-3 ratings by JFG (solid line) and MAW (dashed line) are plotted against adolescent male norms.

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in showing the respects in which these characters are similar: Both are high in overall Openness and especially openness to fantasy; both are low (with tragi-comic results) in competence and deliberation.

It is of interest to reexamine critical views of Alceste in light of his FFM portrait. Boileau perhaps focused on Alceste's high Openness and Conscientiousness. Rousseau admired his straightforwardness (although we might style it brutal frankness). The Romantic critics sympathized with his high Neuroticism, especially depression, and low positive emotions; Bénéchou noted his reactionary tendencies, seen in low openness to actions and values. Together, these comparisons suggest that individual critics tend to overemphasize selected aspects of Alceste's personality; the comprehensive FFM gives a fuller and more balanced picture.

Different raters often see individuals somewhat differently (McCrae, 1994a), and the same is predictably true of expert opinions about fictional characters. All readers have access to the same text, but in the course of an extended work like *Candide*, personality is revealed in a wide variety of situations, and different moments will seem iconic to different readers. Raters will also likely differ in their attributions of specific behaviors to traits in the character or to

the demands of the situation. Structured personality assessment can assist criticism by pinpointing areas of differing perceptions. Figure 4.4, for example, shows notable disagreement on *Candide*'s Extraversion, and JFG and MAW exchanged views on this discrepancy. MAW regards *Candide* as a rather passive figure who merely reacts to the situations in which he finds himself—an object of satire in an age that valued independent action inspired by Reason. JFG, in contrast, ascribes more vitality to *Candide* himself, seeing his voyage as a proactive attempt to find his way in this not-the-best of possible worlds. Both assessments are worth pondering; both can enrich the reader's understanding of the work.

THE VALUE OF CONTEMPORARY PERSONALITY PSYCHOLOGY FOR WRITERS AND READERS

Since the Renaissance, painters have studied human anatomy in preparation for their work. These lessons allowed them to produce images that were admirably lifelike. Knowing the underlying structure of muscles and bones made them more perceptive observers of the

outwardly visible forms of their models, and led them to imagine plausible unseen forms, such as angels and demons. Even when they chose to ignore anatomical correctness—an in Ingres's *Grande Odalisque* or the work of the Cubists—a grounding in the scientific basis of their subject matter gave painters a basis for communication with an audience accustomed to seeing real human beings.

Surely the same argument can be applied to personality psychology. Novelists, playwrights, and poets who depict human characters draw on their own life experience, but they can and should avail themselves of whatever is known through scientific observation. The teachings of personality psychology are, of course, not prescriptive for writers. It would be absurd to insist that twins have near-identical traits, or that gender differences between heroes and heroines mirror those found in real life, or even to suggest that each of the five factors should be illustrated in one character or another.⁸ But training in the FFM may help writers notice traits and behaviors that they would otherwise have overlooked, and these observations can feed their creative imaginations.

Contemporary theories of personality can contribute to artistic vision at a more philosophical level. FFT, illustrated in Figure 4.1, suggests a view of the world that is both essentialist and existentialist. In one sense, people and their lives are an expression of their enduring basic tendencies—traits that define a kind of essence. In another sense, individuals create themselves as a collection of characteristic adaptations—beliefs, relationships, courses of action—that reflect both life experience and their own personal choices. Such ideas could find expression in a variety of themes. Emerson lamented that people “are all creatures of given temperament” whose life “turns out to be a certain uniform tune which the revolving barrel of the music-box must play” (Emerson, 1844/1990). But another author might see the same phenomenon as continual self-actualization, the endless striving to become what we are destined to be. Both tragedians and comedians can find much to grapple with in the notion that, whatever we are in essence, we are inevitably confronted by changing life circumstances to which we must somehow adapt. This is perhaps the central dramatic conflict of life.

Readers, too, should benefit from research on the FFM. Readers' own personalities surely influence the books they choose to read. Those high in Openness are more likely to prefer fiction in general (Mar, Oatley, & Peterson, 2009),

⁸Although Dürer, in the *Four Apostles*, managed to turn the temperamental psychology of his day into high art.

and one NEO-PI-3 item shows that more open readers prefer “poetry that emphasizes feelings and images more than story lines.” Additional research on this topic would probably show that other factors also affect choice: It is hard to imagine that highly agreeable people, kind and sympathetic in their dealings with others, would avidly read violent graphic novels. Reviewers might guide readers by noting the kinds of people who will be most likely to enjoy a book.

Some knowledge of the FFM ought to be part of an education in literature, introduced perhaps in high school. Students who are expected to read *The Scarlet Letter* or *The Crucible* are surely capable of understanding and profiting from the basic principles of trait psychology. All readers might develop a deeper appreciation of literary portraiture—Bloom's “supreme literary value”—if their commonsense intuitions about people are sharpened by knowledge of traits and their manifestations in people's lives.

EPILOGUE

Some 50 years ago, C. P. Snow (1961) famously lamented the rift between scientists and literary intellectuals. This gap has remained. Some contemporary literary theory is ideologically anti-scientific, but the major obstacle is the sheer remoteness of the two kinds of expertise: It is unrealistic to expect a student of 17th-century kabuki theater to have any real understanding of quantum chromodynamics (or vice versa).

Personality psychology, however, is a science within the grasp of any educated person, and there are signs that literary theory and personality psychology may be on the point of fruitful engagement. Invoking E. O. Wilson's notion of consilience, Kruger, Fisher, and Jobling (2003) argued that Darwinian literary criticism could bridge the perspectives of the sciences and humanities. The FFM, whose traits are familiar to both laypersons and trait psychologists, provides another, natural link between readers, writers, and psychologists. Literary scholars are invited to join this conversation.

But personality psychology is not a one-sided gift from science to literature; it is the product of human thought in many forms over many centuries. Oatley (1999) reminded us that “novels contain distillations of folk theory” (p. 115), and psychologists implicitly rely on such commonsense intuitions about people—for example, in writing items for personality questionnaires. Oatley argued that both psychology and literature can benefit from the cross-fertilization of scientific and folk psychologies.

Nor is this exchange limited to academics. One of the characters in Franzen's *The Corrections* is a professor of textual artifacts; another has a family that lives by the maxims of pop psychology. The many readers of this best-selling novel are participants in a grand dialogue between criticism, psychology, and literature that is reshaping human consciousness about human nature. The FFM will be central to it.

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