From *Adorable* to *Worthless*:
Implicit and Self-Report Structure
of Highly Evaluative Personality Descriptors

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Abstract

So-called highly 'evaluative' personality judgments (e.g. describing someone as exceptional, odd, or vile,) are an integral component of people's daily judgments of themselves and others. However, little is known about the conceptual structure, psychological function, and personality-relevance of these kinds of attribution. Two studies were conducted to explore the internal (i.e. implicit) and external (i.e. self-report) structure of highly evaluative terms. Factor analyses of semantic-similarity sortings and self-reports on several representative samples of highly evaluative personality adjectives yielded internal and external structures that were very similar. Both types of structure included five dimensions representing distinction, worthlessness, depravity, unconventionality, and stupidity. The robustness of the uncovered dimensions across the two studies suggests that typically excluded highly evaluative personality terms, far from being behaviorally ambiguous and psychologically uninformative, allude to meaningful dispositions that people both implicitly understand and possess to different degrees. These findings also suggest that highly evaluative personality judgments are organized around the basic domains of morality (i.e. depravity), power (distinction and worthlessness), peculiarity (unconventionality), and intelligence (stupidity). We discuss the implications of our findings for the study of self- and other-esteem processes, personality perception, and the Big Seven factor model of personality. Copyright © 2002 John Wiley & Sons, Ltd.

INTRODUCTION

Evaluation is perhaps the single most important concept associated with feeling, thinking, and doing (Tesser and Martin, 1996, p. 400).

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The social function and ubiquity of evaluative (versus denotative or descriptive) person ascriptions in daily discourse has been recognized in linguistics (Maalej, unpublished; manuscript; Rivière, 1983; Simon-Vandenbergen, 1995), psychology (Kaplan, 1975; Lewicka, 1979), and philosophy (Blumberg, 1973). Social cognitive research, for instance, shows that highly evaluative personality ascriptions (e.g., describing someone as *excellent, immoral, strange*, or *conventional*) play a unique role in person perception processes (Wojciszke, Brycz and Borkenau, 1993). Specifically, highly evaluative personality judgments facilitate future person inferences by eliciting affect-based expectations about the kinds of trait and behavior that characterize a person (Stephens, unpublished dissertation; Van der Pligt and Taylor, 1984). The unique social function played by evaluative person judgments is also supported by developmental linguistics research showing that even young children rely on largely evaluative (versus descriptive) statements when talking about themselves and others (Burger and Miller, 1999; Hoff-Ginsberg, 1997). Furthermore, evidence from cognitive psychology indicates that evaluative judgments frequently dominate over narration and description in informal communication (Giammatteo, 1998) and conversational recall (Hyman, 1994).

The role of evaluation in person ascriptions has also been acknowledged explicitly by some personality psychologists (Borkenau, 1990; Bromley, 1977; Buss, 1991; Hogan, 1982, 1996; Tellegen, 1993; Waller, 1999). For instance, recent work on the socio-cognitive function of trait usage suggests that personality terms ' . . . that are *clearly desirable* or *undesirable* are more numerous than terms that are neutral in evaluation. This is a reasonable finding if the prime purpose of trait terms is to inform about the aptitude of persons' (p. 394, italics added, Borkenau, 1990). Similarly, taking a socio-evolutionary perspective, Hogan (1982) asserts that the main purpose of personality ascriptions is to evaluate the potential of persons as resources for the group. Evaluation is also seen as a core element in important personality processes such as self-esteem and self-concept (O'Brien and Epstein, 1988; Roid and Fitts, 1988), self-perceptual biases (Paulhus and John, 1998; Rosenberg and Sedlak, 1972; Wiggins, 1964), and even personality disorders (Tellegen, 1993; Waller, 1999).

The view that highly evaluative self- and other-judgments are an intrinsic element of person perception has not permeated the personality taxonomy literature, where popular structural models, like the Big Five (or Five Factor Model), define the personality domain primarily in terms of descriptive traits.[1] Historically, this emphasis on descriptive meaning (over evaluation) when mapping the personality domain can be traced to traditional definitions of personality that dismiss 'moral judgments' and reputations as not relevant to the scientific study of personality (Allport and Odbert, 1936; Cattell, 1943; Norman, 1967; but also see Tellegen, 1993; Waller, 1999). The exclusionary argument held by these definitions is at odds with previously introduced contemporary socio-cognitive and

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[1]The common distinction in the literature between evaluative and descriptive judgments is useful here given the purposes of our discussion and the work presented. This distinction, however, is artificial because, in reality, descriptive and evaluative meaning are not discrete categories but a continuum; that is, most personality descriptors have both a descriptive and an evaluative component, although to a different extent (Di Blas, Forzi and Peabody, 2000; Jauregui, 1973; Marquez, 1998). Consider for instance the words *assertive* and *aggressive*. Notice that these words share a descriptive component (social forcefulness) but vary in their evaluative component (*aggressive* is more evaluative than *assertive*). Given this, and to distinguish the extreme terms that are the focus of this research (e.g. lousy) from the more descriptive (but also evaluative) terms that are traditionally used in personality studies, we use the term 'highly evaluative' personality descriptor throughout our paper to refer to the stimuli used in our studies.

evolutionary perspectives, which see evaluative judgments as particularly informative regarding dispositions and behaviors of highly *affective* relevance to humans. That is, evaluative judgments are informative about social characteristics that are relevant to group survival (Borkenau, 1990). The historical disregard for highly evaluative personality terms is also challenged by recent lexical personality work (Benet-Martínez and Waller, 1997; Tellegen and Waller, 1987; Waller, 1999). This literature indicates that the traditional lexical personality space can be expanded with two additional dimensions tapping different aspects of evaluation, a model known as the 'Big Seven' factor structure (Tellegen and Waller, 1987).

Two interesting issues derive from the aforementioned ideas. First, if evaluative personality judgments are particularly informative about what is important to humans, then exploring the number and nature of the basic conceptual dimensions underlying highly evaluative personality terms becomes an important endeavour. Second, to the extent that traditional lexical models of personality have systematically excluded highly evaluative terms, the resulting dimensions may be informative regarding personality domains possibly unrepresented in traditional personality studies.

These issues guided the two studies presented in this paper. The main goal of our two studies is to conduct an initial examination of the structure underlying highly evaluative personality adjectives, more specifically (a) to identify and compare the implicit (internal) and self-report (external) dimensions obtained from semantic-similarity sortings and self-reports collected on a large and representative pool of highly evaluative personality adjectives and (b) to discuss the implications of our findings for the study of the descriptive and evaluative components of personality description, and the Big Seven factor model (Tellegen and Waller, 1987). We see our exploration of the dimensions underlying the highly evaluative personality lexicon as the initial phase of a larger research programme on the evaluative domain of personality description (Benet-Martínez, manuscript in preparation).

Before turning to our studies, we first discuss the difference between implicit and self-report dimensions and review the evidence for the Big Seven's evaluative personality dimensions. We finish our introduction with a brief account of some empirical attempts at separating the descriptive and evaluative components of personality.

Implicit and self-report structures

Psychologists have developed dimensional models to organize variation in a wide range of psychological processes such as personality traits (Allport and Odbert, 1936; Cattell, 1943; Goldberg, 1982; John, 1990; McCrae and Costa, 1985; Tellegen and Waller, in press), emotions (Russell and Barrett, 1999; Watson, Wiese, Vaidya and Tellegen, 1999), and motives (Emmons, 1997; Maslow, 1970; Pervin, 1983). Empirical approaches to this issue typically have relied on two methods: (a) covariance structure analysis of self- or other-report data, and (b) structural analysis of semantic-similarity judgments. Dimensions obtained from the first approach reflect *external* structures because they arise from the co-occurrences of psychological attributes within individuals (Wiggins, 1973). Positive and Negative Affect are two dimensions representative of this approach (Watson, Clark and Tellegen, 1988). Dimensions obtained from structural analysis of semantic similarity data are known as *internal* structures because they putatively reflect people's implicit (i.e. cognitive) theories about the conceptual relations among attributes (Wiggins, 1973). The Intimacy, Passion, and Commitment dimensions that emerge from

implicit theories of love are representative of this second tradition (Hassebrauck and Thomas, 1996; Sternberg, 1988).

An important finding from the literature on dimensional models of personality is that the Big Five (Goldberg, 1993), also known as the Five Factor Model (McCrae and Costa, 1997), emerges not only from self-reports and ratings of well known others and strangers (Mervielde, 1994; Peabody and Goldberg, 1989), but also from semantic similarity ratings and co-occurrence likelihood ratings (Borkenau, 1992). This unexpected finding (that the Big Five can be reliably identified in self- and observer-report data as well as in semantic similarity data) spurred a debate during the 1970s and 1980s regarding the conceptual status and distinguishing features of external and internal personality structures.[2] Some researchers argued that external structures do not reflect the actual relations among personality attributes but merely denote people's folk beliefs about the semantic/ conceptual relations among personality-descriptive terms (the 'systematic distortion' hypothesis; Shweder and D'Andrade, 1980). These researchers concluded that external structures are inaccurate models of how we see ourselves or others. Others researchers argued that the resemblance between dimensions obtained from trait ratings and similarity judgments was to be expected because internal structures are acquired through everyday observation of people's trait descriptive behaviour (the 'accurate reflection' hypothesis; Block, Weiss and Thorne, 1979).[3]

A third position, now widely accepted and known as the 'overlap' hypothesis (Borkenau, 1992), posits that external structures reflect both implicit personality theories (internal structures) and the actual covariation among traits. This so-called 'overlap model' expands the 'accurate reflection' model by stating that implicit personality theories reflect actual behavioural co-occurrences (by virtue of being largely acquired through experience) as well as cultural models (D'Andrade, 1985) and evolutionary forces (Buss, 1991; Hogan, 1982). According to this later view, the Big Five represents a basic structure of individual differences *and* individuals' implicit beliefs about personality (Borkenau, 1992; John and Robins, 1993; Sneed, McCrae and Funder, 1998).

The Big Seven factor models of personality

Despite the widespread acceptance of the Big Five among personality researchers, recent work (Paunonen and Jackson, 2000; Tellegen, 1993; Waller, 1999) has suggested the need to provide a broader scope of the personality domain by considering dimensions outside the Big Five. The view of Tellegen and Waller in particular, is based on the previously introduced fact that the Big Five developed from a pool of personality-relevant terms that excluded highly evaluative terms (and many state-mood descriptors) because these descriptors were not considered representative of so called biophysical traits (Allport and Odbert, 1936; Cattell, 1943; Norman, 1967; see John, Angleitner and Ostendorf, 1988, for an excellent review of all these studies).

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[2]It should be noted that in the 1989 study of Peabody and Goldberg, external and internal personality structures were quite similar, but the dimensions derived from semantic sortings were generally simpler, more schematic, and accounted for more variance. Peabody and Goldberg explained these differences in terms of the cognitive economy associated with semantic judgments.
[3]See Larsen and Diener (1992) and Reisenzein and Schimmack (1999) for a discussion of similar debate in the emotion domain.

To examine the consequences of the above exclusionary criteria, Tellegen and Waller (1987) re-examined the English personality lexicon. Unlike their predecessors, these researchers avoided *a priori* exclusion criteria for highly evaluative and state descriptors when selecting personality terms from the dictionary and, interestingly, they identified seven (rather than five) higher-order personality dimensions.[4] Their so-called 'Big Seven' structure differs from earlier taxonomies in that it includes two clearly evaluative dimensions labeled Positive and Negative Valence. These Valence dimensions are characterized by terms such as: *excellent*, *special*, *impressive*, versus *ordinary*, *average, unexceptional* (Positive Valence), and *wicked, awful, disgusting, immoral* (Negative Valence). The other five dimensions (Positive Emotionality, Negative Emotionality, Conscientiousness, Agreeableness, and Conventionality) are closely related to the Big Five's dimensions of Extroversion, Neuroticism, Conscientiousness, Agreeableness, and Openness respectively.[5]

Importantly, the non-restrictive criteria of Tellegen and Waller (1987) for descriptor selection also allowed emotion-laden descriptors (e.g. *peppy*, *spirited*, or *jumpy*, *jittery*) to emerge in the Big Seven factor structure. These affect terms, in conjunction with traditional markers of Extraversion and Neuroticism, formed two independent dimensions which Tellegen and Waller called Positive and Negative Emotionality, rather than Extraversion and Neuroticism, to reflect their emotional core.

The use of non-restrictive selection criteria broadened the resulting personality structure in at least one more way. Specifically, it allowed evaluative terms denoting extreme openness (e.g. *peculiar*, *odd*, *unusual*) to emerge in the negative pole of the Big Seven's Conventionality dimension, next to other terms denoting progressive political–social attitudes and intellectual curiosity (i.e. Openness to Experience).

During the last decade, several replications of the Big Seven have been obtained across samples, targets, and languages (Almagor, Tellegen and Waller, 1995; Benet and Waller, 1995; Benet-Martínez and Waller, 1996; Waller, 1999).[6] Factors resembling Negative and (to a lesser extent) Positive Valence were also found by Saucier (1997) in a study that examined the effect of personality variable selection on the structure of personality ratings. A Negative Valence factor has also been found in lexical studies of Tagalog and Dutch personality descriptors (Church, Reyes, Katigbak and Grimm, 1997; Church, Katigbak and Reyes, 1998; De Raad and Hoskens, 1990; De Raad, Mulder, Kloosterman and Hofstee, 1988).

Regarding the validity of the Big Seven Valence dimensions, we believe that these constructs relate to components of self-evaluation or esteem that are not explicitly represented in previous lexical models (Benet-Martínez, 1999; Tellegen, 1993; Waller, 1999). Specifically, Positive and Negative Valence capture reliable variance in self-perceptions of *status* and *prominence* (Positive Valence) and *virtue* (Negative Valence), what Paulhus and John (1998) describe as egoistic and moralistic self-perceptual biases, or the 'superhero' and 'sainthood' complexes (see also Rosenberg and Sedlak, 1972; Wiggins, 1964). The psychological significance of Positive and Negative Valence is also supported by some multidimensional models of self-esteem and self-concept (O'Brien and

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[4]See Waller (1999) for a detailed description of the stratified-sampling procedures used for the selection of personality terms in the 1987 study of Tellegen and Waller.
[5] For labels and examples of marker items for each of the Big Seven dimensions, see Table 1 in Benet and Waller (1995).
[6]The 1995 study of Almagor *et al*. provides only a partial replication of the Big Seven given that a dimension representing Conventionality failed to emerge.

Epstein, 1988; Roid and Fitts, 1988) that include dimensions representing 'personal power' and 'moral self-approval,' two constructs that can be conceptually linked to Positive and Negative Valence, respectively.[7]

Lastly, Positive and Negative Valence might also prove useful for understanding of Axis II personality disorders (Waller, 1999). Specifically, these dimensions may help elucidate the maladaptive self-evaluative processes involved in narcissism (which is characterized by a grandiose sense of self-importance), borderline personality (which involves alternation of extreme overidealization and devaluation of the self) or avoidant personality (which involves social discomfort and fear of negative evaluation by others).

Some researchers have argued that Positive and Negative Valence do not capture meaningful personality variance outside the Big Five, but rather merely represent extreme variants of traits located within the five-factor model (McCrae and Costa, 1995; Saucier, 1994a). Only a handful of studies have empirically addressed this issue. McCrae and Costa (1995) conducted a joint exploratory factor analysis of Big Five and Big Seven scales and reported a five-factor solution where Positive Valence loaded significantly on Extraversion and Openness, and Negative Valence loaded on Neuroticism, Extraversion, Conscientiousness, and Agreeableness. The authors interpreted these results as evidence that the two evaluative dimensions do not carry enough substantive variance beyond the Big Five. Results from recent correlational and confirmatory factor analytic studies of the Big Five/ Big Seven independence, however, contradict this conclusion (Benet-Martínez, 1999; Benet-Martínez and Waller, 1997). These studies show that Positive and Negative Valence scales have small to non-significant correlations with Big Five scales (see Table 1 in Benet-Martínez and Waller, 1997), and that the latent structure underlying Big Seven and Big Five measures is best organized around seven dimensions representing the Big Five plus Positive and Negative Valence (see CFA figure in Benet-Martínez, 1999), supporting the view that Positive and Negative Valence may capture sufficient unique psychological variance to define factors outside the Big Five.[8]

Descriptive and evaluative components of personality

The Big Five do not include dimensions representing positive and negative evaluation but this does not imply that Big Five personality descriptors are devoid of evaluation. As stated previously, the typical personality descriptor has both a descriptive and an evaluative component, although to a different extent. In fact, several personality researchers have shown that structures separating description and evaluation can be obtained from Big Five descriptors (Di Blas *et al.*, 2000; Peabody, 1984; Saucier, 1994b) or other descriptor lists where trait words are over-represented (Kuusinen, 1969; Kim and Rosenberg, 1980; Osgood and Suci, 1955), even though in many instances these descriptors were selected *a priori* for their low evaluativeness (Allport and Odbert, 1936; Norman, 1967). Peabody

[7]The psychological significance of Positive and Negative Valence and their orthogonality may be linked to basic evaluative processes similar to those involved in the attitude domain (Cacioppo, Gardner and Berntson, 1997). Recent evidence from this area suggests that, contrary to traditional bipolar conceptualizations, different motivational systems underlie judgments of the positive and negative significance of a stimulus (Cacioppo *et al.*, 1997; Tesser and Martin, 1996).

[8]Evidence also exists indicating that Positive and Negative Valence are not 'difficulty' factors (Waller, 1999) and are only weakly related to measures of social desirability and acquiescence (McCrae and Costa, 1995). A recent self–peer convergence study also suggests that these two dimensions capture observable meaningful personality variance that cannot be fully accounted by the Big Five (Benet-Martinez and Waller, 1996).

(1984; Peabody and Goldberg, 1989), for instance, identified two descriptive dimensions (tight versus loose and assertive versus unassertive) and one general (i.e. correlated with the other two) positive versus negative evaluative factor. Using Big Five descriptors, Saucier (1994b) identified five dimensions, of which four were descriptive (extraversion, affective orientation, norm orientation, and form orientation) and one evaluative. Similarly, Osgood and Suci (1955), using personality scales and other terms assembled by various methods, identified dimensions representing evaluation, activity, and potency.

The literature reviewed so far supports the view that personality descriptors (including those that have been selected *a priori* for their low evaluativeness, such as those that typically define the Big Five) have robust and identifiable underlying evaluative components. This conclusion raises an intriguing question: can the same logic be applied to traditionally excluded highly evaluative personality descriptors? That is, does this descriptor class have reliable personality-relevant descriptive components? Work discussed earlier (Benet-Martínez, 1999; Tellegen, 1993; Tellegen and Waller, 1987), as well as recent studies conducted by Big Five researchers (Saucier, 1997; Saucier and Goldberg, 1998), suggest that the answer to these questions may be yes. These studies show that *when examined together with less-evaluative, traditional Big Five markers*, highly evaluative descriptors define two independent dimensions representing depravity versus morality (Negative Valence) and social potency or power versus inferiority (Positive Valence) that are not subsumable within the Big Five (although the evidence for the Big Five independence of Positive Valence is less clear in the studies of Saucier and Goldberg).

An important question remains unanswered with regard to the conceptual and psychometric status of these additional evaluative personality dimensions. Namely, insofar as the emergence and meaning of a particular dimension is heavily influenced by the diversity of stimuli included in the structural analysis, what would be the number and nature of dimensions emerging from pools of highly evaluative personality terms that *do not* explicitly include Big Five adjectives? More specifically, would these conceptual dimensions look just like Positive and Negative Valence or represent instead narrower, more specific subcomponents of these two broad constructs? Alternatively, would these uncovered dimensions perhaps capture domains of evaluation never uncovered previously?

A secondary issue concerns the degree of overlap between the external and internal structures underyling highly evaluative personality terms. That is, would people's implicit theories about the conceptual relations among highly evaluative personality descriptors correspond closely to the actual covariation in people of the dispositions represented by these terms? Note that this last question, which has received large theoretical and empirical attention in the emotion and trait domain, has yet to be addressed in the domain of evaluation. The finding that external and internal structures for highly evaluative personality terms do in fact overlap would suggest that, as with traits and emotions (Borkenau, 1992; Schimmack and Reisenzein, 1997), evaluative personality terms allude to psychological dispositions of socio-evolutionary relevance that people both implicitly understand and possess to different degrees.

The two studies presented next provide an initial examination of the issues discussed so far. These studies identify and compare the internal and external structures underlying semantic-similarity sortings and self-reports on a large and representative pool of highly evaluative personality adjectives.

STUDY 1: INTERNAL STRUCTURE OF HIGHLY EVALUATIVE PERSONALITY DESCRIPTORS

Method

Derivation of three samples of highly evaluative personality terms

Three representative samples of highly evaluative personality adjectives (each sample included 75 terms) were randomly selected from Norman's (1967) excluded category of 'evaluative' terms. We selected only a subset of Norman's original set of 760 evaluative descriptors (using a random-number generator) because this list was too large to be used in a single meaning-similarity exercise. The three samples were highly independent from each other such that only a handful of terms overlapped among the three sets (eight common terms appeared in sets 1 and 2; six common terms appeared in sets 1 and 3; five common terms appeared in sets 2 and 3; and two common terms appeared in sets 1, 2, and 3).

The three sets of adjectives were used in separate free sorting exercises, an efficient and widely used method for obtaining judgments of meaning similarity (Brewer and Lui, 1996). Each term was printed on a 3×5 index card. Because many of the terms were potentially unfamiliar and/or ambiguous, each card also included an easy-to-understand short definition or synonym for the word (taken from various dictionaries). The complete list of 225 highly evaluative adjectives and their definitions is included in the Appendix.

Sample

Three samples of individuals sorted each set of terms (samples 1, 2, and 3 sorted sets 1, 2 and 3, respectively). All participants were undergraduate students at the University of California at Berkeley who received course credit for their participation. English was the first language of all participants. A wide range of college majors was represented, and the majority of participants were non-psychology students.

Sample 1 consisted of 41 individuals (15 men and 26 women) with a mean age of 20.13 years (SD = 2.52). Sample 2 consisted of 48 individuals (23 men and 25 women) with a mean age of 20 years (SD = 1.89). Sample 3 consisted of 41 individuals (12 men and 29 women) with a mean age of 21.46 years (SD = 1.94).

Procedure

Each participant was seated next to a large table and given the following printed instructions:

> You will be presented with a set of 75 cards. Note that each card has a word in the middle and a definition or synonym for that word at the bottom. As you can see, all the words are evaluative and ordered alphabetically. Your job is to sort these words into *groups that contain characteristics which are the same, or very similar.* You can use as few or as many groups as you wish. Make the groups by making different piles on the table. Please first read each card very carefully, and think of its meaning as it applies to humans (not to objects). Very important: If you find words that are *antonyms* (i.e., words that have clear opposite meanings, such as 'brilliant' versus 'stupid'), put them in separate piles but, please, put the antonym *piles right next to each other* on the table (so we know that the piles represent opposite poles of the same group). When finished, check your piles to ensure that there are not groups that can be merged because they have very similar meanings.

After receiving these instructions, each participant performed the sorting task, finishing in an hour or less. The mean number of sorting groups used by participants in set 1 was 10

(SD = 5), 10.6 in set 2 (SD = 16), and 12.7 in set 3 (SD = 5.6), counting antonym groups and their corresponding piles as a single group. Sortings from each participant were coded by assigning a unique integer to all terms sorted in the same pile (i.e. for each participant, as many different integers were assigned as number piles the participant had made). Antonym piles were assigned the same integer but of opposite sign (e.g. 3 and −3).

Using a computer program developed by Tellegen (unpublished, manuscript), the semantic sortings were converted to three (one per set) 75×75 co-occurrence matrices. The co-occurrence rate for a pair of terms was raised by one for each participant that assigned it to the same group. Each time a pair of terms was assigned to an antonym group the co-occurrence rate was decreased by one. This ensured that terms frequently placed in antonym piles by participants (e.g. unremarkable, distinctive) could receive a negative co-occurrence rate and that eventually both terms emerged as markers of the same evaluative dimension but with opposite-sign factor loadings. Because the number of participants sorting each set differed, the co-occurrence rates were converted to proportions by dividing each cell of the matrix by the number of participants. We then proceeded to investigate the major sources of variances (i.e. structure) for these three matrices using factor analysis.[9]

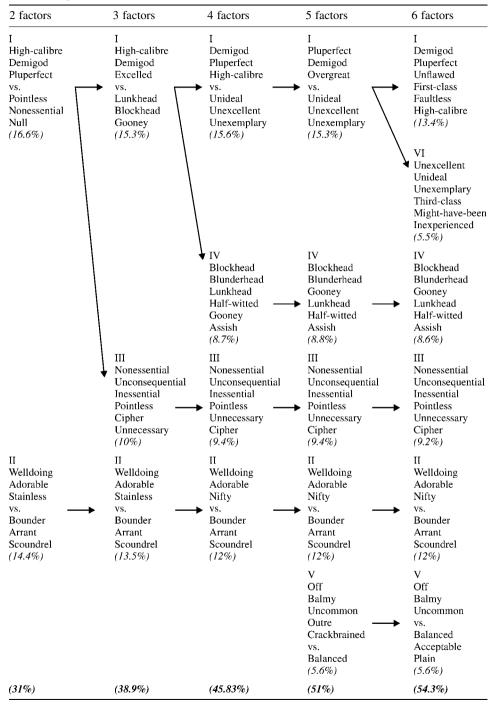## Results

Factor analyses

The goal of the factor analyses was to identify, if possible, a common dimensional structure that would best represent the internal (i.e. conceptual) structure of our highly evaluative personality adjectives *within* and *across* the three samples of terms. The application of factor analyses to sorting co-occurrence matrices has been used successfully by many personality researchers, including Church and Katigbak (1989), Harkness (1992), Watson *et al*. (1984), and Waller, Lykken and Tellegen (1995).

The first ten eigenvalues for set 1 were 16.1, 6.9, 6.1, 5.2, 3.9, 2.5, 2.5, 1.9, 1.7, and 1.4. For set 2 the first ten eigenvalues were 16.3, 8.6, 5.3, 4.8, 3.6, 2.7, 2.1, 1.9, 1.6, and 1.3; and for set 3 they were 12.3, 8.7, 6.3, 4.9, 3.3, 2.9, 2.4, 2.0, 1.8, and 1.5. Using principal factors analysis, we first examined Varimax-rotated solutions with two to six factors. Furthermore, because structures including highly correlated components or a general evaluation factor plus additional content factors were also theoretically plausible (Osgood and Suci, 1955; Peabody, 1984), we also examined Promax- and Quartimax-rotated solutions. Selection of the final dimensional structures was guided by a mixture of quantitative and qualitative considerations: (1) the scree plots, (2) the psychological coherence of the obtained solutions, and (3) factor replicability within and across the three sets. We discuss the orthogonal solutions first.

Because presenting and describing in detail each of the Varimax-rotated structures (15 in total) goes beyond the space limitations of this paper, summaries of these solutions and examples of their primary markers are depicted in Tables 1 to 3. Note that the two-factor solutions for sets 1 and 3 included two very large factors broadly representing Positive (e.g. *high-calibre*, *paragon*) and Negative (*scoundrel*, *cursed*) Valence. The two-factor solution for set 2, however, was different in that it included one factor combining Positive and Negative Valence plus a factor representing Stupidity (e.g. *noodle*, *blockhead*). An interesting commonality among the three progressions of factor solutions

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[9]Co-occurrence matrices are Gramian (can be represented by the product of a matrix and its transpose) and therefore can be factor analysed.

Table 1.   Semantic sortings of highly evaluative personality terms (set 1): varimax-rotated solutions and their highest factor markers

2 factors	3 factors	4 factors	5 factors	6 factors
I High-calibre Demigod Pluperfect vs. Pointless Nonessential Null (16.6%)	I High-calibre Demigod Excelled vs. Lunkhead Blockhead Gooney (15.3%)	I Demigod Pluperfect High-calibre vs. Unideal Unexcellent Unexemplary (15.6%)	I Pluperfect Demigod Overgreat vs. Unideal Unexcellent Unexemplary (15.3%)	I Demigod Pluperfect Unflawed First-class Faultless High-calibre (13.4%)
				VI Unexcellent Unideal Unexemplary Third-class Might-have-been Inexperienced (5.5%)
		IV Blockhead Blunderhead Lunkhead Half-witted Gooney Assish (8.7%)	IV Blockhead Blunderhead Gooney Lunkhead Half-witted Assish (8.8%)	IV Blockhead Blunderhead Gooney Lunkhead Half-witted Assish (8.6%)
	III Nonessential Unconsequential Inessential Pointless Cipher Unnecessary (10%)	III Nonessential Unconsequential Inessential Pointless Unnecessary Cipher (9.4%)	III Nonessential Unconsequential Inessential Pointless Unnecessary Cipher (9.4%)	III Nonessential Unconsequential Inessential Pointless Unnecessary Cipher (9.2%)
II Welldoing Adorable Stainless vs. Bounder Arrant Scoundrel (14.4%)	II Welldoing Adorable Stainless vs. Bounder Arrant Scoundrel (13.5%)	II Welldoing Adorable Nifty vs. Bounder Arrant Scoundrel (12%)	II Welldoing Adorable Nifty vs. Bounder Arrant Scoundrel (12%)	II Welldoing Adorable Nifty vs. Bounder Arrant Scoundrel (12%)
			V Off Balmy Uncommon Outre Crackbrained vs. Balanced (5.6%)	V Off Balmy Uncommon vs. Balanced Acceptable Plain (5.6%)
(31%)	*(38.9%)*	*(45.83%)*	*(51%)*	*(54.3%)*

Note. $N = 41$ sorters. $K = 75$ terms. Roman numbers denote factor order. Numbers in parenthesis indicate the percentage of variance accounted for by that factor and by the entire solution (at the bottom of the table). Arrows indicate whether the factor replicates entirely or splits up in the next factor solution.
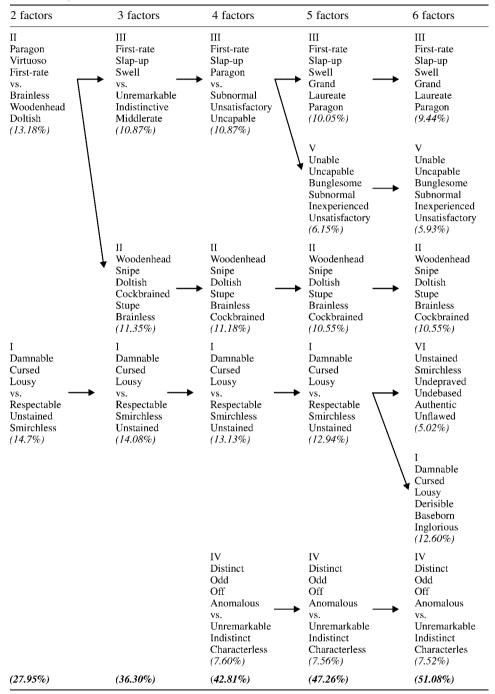
Table 2.   Semantic sortings of highly evaluative personality terms (set 2): varimax-rotated solutions and their highest factor markers

2 factors	3 factors	4 factors	5 factors	6 factors
I Commendable Noble Gem vs. Disgraced Nefarious Evildoer *(20.21%)*	II Overgreat Magnificent Remarkable vs. One-horse Meaningless Negligible *(12.19%)*	I Haloed Top-gallant Topnotch Overgreat Exceptional Honorable *(14.84%)*	I Haloed Top-gallant Topnotch Overgreat Exceptional Honorable *(14.21%)*	I Haloed Top-gallant Overgreat Topnotch Exceptional Gem *(14.29%)*
		IV Meaningless One-horse Chaffy Negligible Futile Piddling *(9.67%)*	IV Meaningless One-horse Chaffy Negligible Futile Piddling *(9.29%)*	IV Futile Piddling One-horse Chaffy Negligible Meaningless *(7.29%)*
				V Ungifted Might-have-been Unmeritorious Nonexpert Disgraced Crude *(6.78%)*
	I Noble Haloed Honorable vs. Nefarious Evildoer Beastly *(17.26%)*	III Beastly Ordurous Scalawag Evildoer Nefarious Damnable *(10.88%)*	III Beastly Ordurous Scalawag Evildoer Nefarious Damnable *(11.60%)*	III Beastly Ordurous Scalawag Evildoer Nefarious Damnable *(10.53%)*
II Noodle Blockhead Half-witted Moronic Stupe Beef-witted *(13.46%)*	III Noodle Blockhead Half-witted Stupe Prune Beef-witted *(11.41%)*	II Noodle Blockhead Half-witted Prune Stupe Beef-witted *(11.93%)*	II Noodle Blockhead Half-witted Prune Ninnysh Stupe *(11.95%)*	II Noodle Blockhead Half-witted Prune Ninnysh Stupe *(11.86%)*
			V Oddish Peculiar Bizarre Daft Cracked Warped *(5.03%)*	VI Oddish Peculiar Bizarre Daft Cracked Warped *(5.00%)*
(33.67%)	*(40.87%)*	*(47.34%)*	*(52.10%)*	*(55.78%)*

Note. $N = 48$ sorters. $K = 75$ terms. Roman numbers denote factor order. Numbers in parenthesis indicate the percentage of variance accounted for by that factor or by the entire solution (at the bottom of the table). Arrows indicate whether the factor replicates entirely or splits up in the next factor solution.

Table 3.   Semantic sortings of highly evaluative personality terms (set 3): varimax-rotated solutions and their highest factor markers

2 factors	3 factors	4 factors	5 factors	6 factors
II Paragon Virtuoso First-rate vs. Brainless Woodenhead Doltish *(13.18%)*	III First-rate Slap-up Swell vs. Unremarkable Indistinctive Middlerate *(10.87%)*	III First-rate Slap-up Paragon vs. Subnormal Unsatisfactory Uncapable *(10.87%)*	III First-rate Slap-up Swell Grand Laureate Paragon *(10.05%)*	III First-rate Slap-up Swell Grand Laureate Paragon *(9.44%)*
			V Unable Uncapable Bunglesome Subnormal Inexperienced Unsatisfactory *(6.15%)*	V Unable Uncapable Bunglesome Subnormal Inexperienced Unsatisfactory *(5.93%)*
	II Woodenhead Snipe Doltish Cockbrained Stupe Brainless *(11.35%)*	II Woodenhead Snipe Doltish Stupe Brainless Cockbrained *(11.18%)*	II Woodenhead Snipe Doltish Stupe Brainless Cockbrained *(10.55%)*	II Woodenhead Snipe Doltish Stupe Brainless Cockbrained *(10.55%)*
I Damnable Cursed Lousy vs. Respectable Unstained Smirchless *(14.7%)*	I Damnable Cursed Lousy vs. Respectable Smirchless Unstained *(14.08%)*	I Damnable Cursed Lousy vs. Respectable Smirchless Unstained *(13.13%)*	I Damnable Cursed Lousy vs. Respectable Smirchless Unstained *(12.94%)*	VI Unstained Smirchless Undepraved Undebased Authentic Unflawed *(5.02%)*
				I Damnable Cursed Lousy Derisible Baseborn Inglorious *(12.60%)*
		IV Distinct Odd Off Anomalous vs. Unremarkable Indistinct Characterless *(7.60%)*	IV Distinct Odd Off Anomalous vs. Unremarkable Indistinct Characterless *(7.56%)*	IV Distinct Odd Off Anomalous vs. Unremarkable Indistinct Characterles *(7.52%)*
(27.95%)	*(36.30%)*	*(42.81%)*	*(47.26%)*	*(51.08%)*

Note. $N = 41$ sorters. $K = 75$ terms. Roman numbers denote factor order. Numbers in parenthesis indicate the percentage of variance accounted for by that factor or by the entire solution (at the bottom of the table). Arrows indicate whether the factor replicates entirely or splits up in the next factor solution.

(but not easily observable in the tables) was that most markers of ($-$) Conventionality (e.g. *oddish*, *bizarre*, *distinct*) had loadings close to zero in the two- and three-factor solutions, suggesting the need to extract solutions with higher numbers of factors; in fact, these markers did not define a Conventionality dimension until five factors (in sets 1 and 2) and four factors (set 3) were extracted.[10]

Perhaps the most important (and visible) fact in the progression of factor solutions depicted in Tables 1 to 3 is the structural and conceptual convergence across sets reached by the five-factor solutions (note that in the two-, three-, four-, and six-factor solutions the overlap across sets is only partial). This convergence is noteworthy given the small to moderate differences in content representation that probably exist among the three sets of terms. This finding pointed to orthogonal structures with five factors as meaningful solutions for the data. These solutions are depicted in Tables 4 to 6.

Solutions obtained with promax- and quartimax rotation methods did not prove very different from the Varimax-rotated solutions, and the factor inter-correlations tended to be very low. For instance, the mean factor inter-correlations for the oblique five-factor solutions were 0.12 (absolute value) for set 1, 0.12 for set 2, and 0.10 for set 3. Quartimax-rotated solutions failed at producing a first general factor.

All in all, results support the adequacy of the five-factor solutions depicted in Tables 4 to 6 to describe the conceptual relations among our highly evaluative personality adjectives. A striking feature of these solutions is how remarkably similar they are in their factor definitions. Each structure includes factors that purely or partially capture the unique, evaluative elements of the Big Seven factor model (i.e. include evaluative terms related to Positive Valence, Negative Valence, and Conventionality), namely (a) a factor denoting high exceptionality, status, and uniqueness (e.g. *pluperfect*, *haloed*, *first-rate*), which we named distinction; (b) a factor resembling Negative Valence and denoting depravity (e.g. *bounder*, *beastly*, *damnable*), which we labelled depravity; (c) a factor that mainly (but not exclusively) captures the opposite pole of Conventionality (e.g. *off*, *oddish*, *distinctive*), which we called unconventionality; and (d) a factor representing unworthiness (e.g. *nonessential*, *meaningless*) in sets 1 and 2, and inability in set 3 (*unable*), which we labelled worthlessness.[11]

At first glance, the worthlessness dimension may resemble the low pole of distinction, but several features of this dimension weigh against that conclusion: (a) the psychometric independence of this factor from distinction, as suggested by the lack of cross-loadings between the two factors (there are only four cross-loadings equal to or larger than 0.30); and (b) some subtle differences in meaning—note that distinction, as depicted in Tables 4 to 6, is primarily defined by terms denoting high *class* and unsurpassability (i.e. social visibility); worthlessness, on the other hand, is represented by terms denoting (low) *value* (i.e. low social merit or utility). All in all, we are inclined towards an interpretation of distinction and worthlessness as two different facets of Positive Valence.

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[10]Detailed information regarding all the solutions summarized in Tables 1 to 3 can be obtained from the first author.

[11]We realize that the label worthlessness may not be ideal for the fifth factor in set 3, which is represented mostly by terms denoting inability (e.g. *unable*, *uncapable*), rather than worthlessness (interestingly, note that *unconsequential* and *nonessential*, which are markers of worthlessness in set 1, appear as markers of low unconventionality in set 3). However, the fact that a clear worthlessness dimension also emerged in study 2 (where all three sets were combined in one measure) suggests that the somewhat different definition of this dimension in Table 3 (see also Table 6) may have been caused by an underrepresentation of worthlessness markers in set 3 (relative to sets 1 and 2).

Table 4.   Semantic sortings of highly evaluative personality terms (set 1): varimax-rotated five factor solution

Items	Distinction	Depravity	Worthlessness	Stupidity	Unconventionality
Pluperfect	**85**	−12	−05	−05	00
Demigod	**84**	−13	−03	−10	01
Overgreat	**81**	−15	−06	−06	00
High-calibre	**81**	−07	−05	−19	−01
First-class	**81**	−03	−03	−12	−02
Faultless	**78**	−16	−06	−04	00
Unflawed	**76**	−20	−01	04	−02
Supereminent	**73**	−19	−06	−10	−01
Paralleless	**72**	−06	−16	−08	05
Excelled	**72**	−02	−01	−23	−04
Sublimish	**72**	−17	01	−13	00
Stellar	**71**	−16	00	−22	00
Proficient	**62**	−17	−06	−29	−02
Unparalleable	**60**	01	−10	−04	09
Stainless	**60**	−26	04	05	−02
Respectworthy	**53**	−**32**	−18	−06	−02
Unmarred	**48**	−24	03	06	−03
Unsmirched	**42**	−29	−07	06	−04
Engraced	24	−23	−13	−12	−04
Third-class	−**33**	05	08	18	01
Might-have-been	−**33**	−05	13	21	01
Fallible	−**42**	−01	08	**41**	01
Unexemplary	−**45**	10	27	16	−02
Unexcellent	−**50**	09	23	14	−01
Unideal	−**51**	09	**30**	11	00
Bounder	−12	**84**	−04	04	04
Arrant	−11	**83**	−02	02	02
Repulsive	−08	**78**	−02	06	05
Scoundrel	−27	**77**	−03	−03	00
Rat	−22	**75**	−03	00	00
Buzzard	−09	**74**	−04	04	14
Puckish	−08	**71**	−02	01	01
Lousy	−12	**70**	−04	10	05
Base-minded	−18	**64**	04	13	02
Contemptible	−29	**63**	05	−06	02
Fallen	−22	**54**	10	−06	03
Disagreeable	02	**54**	01	03	08
Disgraced	−18	**54**	16	−03	00
Scummy	−**36**	**52**	22	−05	−01
Honourless	−**31**	**51**	18	−03	00
Denigrated	−28	**50**	18	01	02
Ungenuine	−11	**35**	13	08	04
Overluscious	−09	−14	−01	−08	06
Unharmful	−04	−27	16	13	−04
Nifty	02	−**40**	−09	−24	−04
Adorable	−05	−**56**	−03	−12	−02
Welldoing	03	−**57**	02	−14	−05
Nonessential	−12	00	**93**	00	00
Unconsequential	−04	04	**91**	01	03
Inessential	−07	03	**88**	01	01
Pointless	−14	03	**85**	08	−01

Continues

Table 4.   *(Continued)*

Items	Distinction	Depravity	Worthlessness	Stupidity	Unconventionality
Unnecessary	−02	−03	**84**	−02	00
Cipher	−12	09	**84**	06	04
Null	−15	−02	**80**	07	−03
Piddling	01	07	**73**	00	10
Worthless	**−30**	21	**49**	01	02
Plain	**−04**	−03	**36**	13	**−33**
Considerable	22	−12	**−51**	−10	−07
Blockheaded	−13	02	00	**92**	03
Blunderhead	−10	04	00	**92**	02
Gooney	−15	02	02	**90**	00
Lunkhead	−17	08	03	**90**	04
Half-witted	−12	07	03	**89**	03
Assish	−09	13	−02	**81**	04
Lumpish	−10	09	05	**57**	02
Loutish	−11	12	05	**51**	05
Inexpert	**−32**	−02	10	**48**	04
Uncapable	**−36**	−01	13	**44**	05
Off	−01	04	00	03	**85**
Balmy	−03	−01	03	04	**85**
Uncommon	05	00	02	−02	**85**
Outre	06	−01	01	03	**83**
Crackbrained	04	16	−01	08	**69**
Balanced	07	−09	−03	−06	**−64**
Acceptable	06	−13	−07	−08	**−49**

Note. N = 41 sorters. K = 75 terms. All loadings multiplied by 100; loadings |0.30| or larger are set in bold.

Table 5.   Semantic sortings of highly evaluative personality terms (set 2): varimax-rotated five factor solution

Items	Distinction	Stupidity	Depravity	Worthlessness	Unconventionality
Haloed	**79**	−10	−22	−05	00
Topgallant	**78**	−11	−09	−19	03
Topnotch	**78**	−11	−06	−19	03
Overgreat	**78**	−15	−05	−23	02
Exceptional	**77**	−10	−12	−12	04
Gem	**76**	−04	−23	−09	01
Honourable	**76**	−11	−24	−04	−01
Magnificent	**73**	−20	−08	−24	03
Noble	**73**	−09	−28	−08	−02
Commendable	**72**	02	−29	−11	01
Remarkable	**71**	−08	00	−22	04
Loveworthy	**64**	−01	−20	−01	−02
Unflawed	**62**	−02	−21	−17	−07
Good	**61**	−07	−29	01	−09
Virtuous	**59**	−04	−23	06	−14
Unmarred	**55**	−01	−27	−11	−09
Scrumptious	**54**	−01	−08	−17	05
Peachy	**54**	00	−25	04	−03

Continues

Table 5.   *(Continued)*

Items	Distinction	Stupidity	Depravity	Worthlessness	Unconventionality
Unfallen	**52**	−02	−08	−20	−02
Sensational	**47**	01	02	−08	10
Uncrooked	**42**	01	−15	03	−11
Novel	**42**	−09	−05	−20	**37**
Noodle	−08	**98**	−01	04	02
Blockheaded	−09	**96**	−01	02	02
Half-Witted	−07	**95**	−01	06	00
Prune	−06	**94**	00	04	02
Ninnyish	−06	**94**	−01	06	05
Stupe	−03	**93**	−01	02	02
Beef-Witted	−03	**92**	00	03	02
Moronic	−12	**91**	−01	06	02
Tomfool	−04	**88**	05	09	06
Bunglesome	−05	**49**	03	**36**	−03
Lacklustre	−26	**46**	−01	**30**	−12
Beastly	−12	01	**73**	−06	04
Ordurous	−11	01	**71**	06	05
Scalawag	−19	04	**71**	−06	03
Damnable	−19	−01	**69**	−01	−04
Evildoer	−27	−01	**68**	−08	04
Nefarious	−28	−01	**66**	−11	04
Ignominious	−23	10	**65**	08	−02
Disgraceful	−19	−04	**63**	26	−03
Buzzard	−01	04	**62**	−05	07
Wrong-Hearted	−26	−02	**61**	00	15
Flagrant	−06	−03	**59**	−04	12
Cad	−14	01	**58**	13	03
Deplorable	−07	−03	**58**	09	03
Dastardly	−27	03	**58**	10	01
Unadmirable	−20	−05	**57**	25	−01
Demeaned	−24	−01	**53**	32	−03
Blot	−11	−03	**50**	26	01
Crummy	−07	00	**50**	31	04
Unmeritorious	−18	07	**41**	33	01
Unenviable	−21	−02	**40**	33	00
Crude	01	10	**39**	27	−08
Meaningless	−12	−03	09	**85**	−01
One-Horse	−16	02	00	**85**	01
Chaffy	−08	07	−01	**79**	−02
Negligible	−13	04	−03	**78**	00
Futile	−09	−01	−04	**75**	08
Piddling	−06	04	−03	**74**	09
Good-For-Nothing	−17	10	14	**65**	−04
Scummy	−12	−02	**33**	**52**	−01
Ungifted	−16	25	09	**49**	−03
Might-Have-Been	−24	10	17	**47**	00
Uncapable	−13	**40**	03	**42**	−01
Dislustered	−02	05	26	**40**	−11
Nonexpert	−19	**33**	02	**37**	−03
Menial	−06	23	16	**36**	−02
Oddish	01	−02	−01	01	**88**
Peculiar	01	−04	−01	00	**88**

Continues

Table 5.   *(Continued)*

Items	Distinction	Stupidity	Depravity	Worthlessness	Unconventionality
Bizarre	01	−04	−01	04	**86**
Daft	−04	13	07	00	**69**
Cracked	−03	06	11	05	**64**
Warped	−21	−01	**40**	00	**47**
Cataclysmal	01	−01	20	−08	21

Note. N = 49 sorters. K = 75 terms. All loadings multiplied by 100; loadings |0.30| or larger are set in bold.

Table 6.   Semantic sortings of highly evaluative personality terms (set 3): varimax-rotated five factor solution

Items	Depravity	Stupidity	Distinction	Unconventionality	Worthlessness
Damnable	**88**	−01	−12	−01	03
Cursed	**88**	−01	−12	−01	03
Lousy	**81**	−01	−12	−01	04
Baseborn	**78**	00	−05	00	05
Derisible	**78**	04	−14	00	07
Inglorious	**76**	−02	−15	02	06
Dreggy	**75**	−01	−03	−01	02
Stained	**72**	−01	−17	−03	04
Cattle	**70**	09	−04	00	02
Insufferable	**70**	00	−09	00	01
Reprehensible	**67**	−02	−18	00	04
Base	**67**	−01	−07	01	08
Unsufferable	**67**	00	−10	00	04
Disparageable	**63**	−03	−20	−03	14
Flagrant	**62**	02	−04	00	02
Pill	**49**	07	02	03	02
Unbonny	**45**	−01	−03	00	06
Undeserving	**42**	−02	−02	13	**34**
Misbeseeming	**31**	01	−05	03	11
Consequential	23	00	09	−11	−11
Peachy	−17	−01	15	00	11
Honey	−28	−01	15	−01	09
Wooden-Headed	01	**95**	−05	02	12
Snipe	01	**94**	−06	−03	10
Cockbrained	00	**93**	−05	−02	08
Stupe	01	**93**	−05	01	13
Doltish	01	**93**	−04	02	14
Brainless	00	**92**	−07	06	15
Blear-Witted	00	**89**	−06	08	12
Goosish	01	**88**	−06	−02	07
Gump	00	**87**	−06	11	10
First-Rate	−04	−04	**85**	−06	−14
Slap-Up	−06	−04	**79**	−05	−17
Swell	−08	−02	**77**	−09	−13
Grand	−02	00	**75**	−08	−04
Laureate	−06	−05	**73**	−01	−05
Paragon	01	−09	**73**	−02	−25

Continues

Table 6. *(Continued)*

Items	Depravity	Stupidity	Distinction	Unconventionality	Worthlessness
Respectable	−23	01	**64**	02	−02
Unflawed	−10	−02	**60**	01	−12
Demigod	02	−10	**57**	−05	−24
Unparagoned	−03	−06	**56**	−24	−13
Virtuoso	00	−10	**54**	−04	**−36**
Extraordinary	−03	−10	**50**	**−43**	−03
Undebased	−22	−03	**46**	09	15
Unstained	−28	02	**46**	00	10
Smirchless	−29	02	**44**	−01	07
Prowessfull	−16	01	**41**	−06	−08
Undepraved	**−32**	00	**40**	06	18
Abundant	00	−03	**40**	−02	−21
Swellish	−11	−05	**37**	−07	−09
Competent	−03	−09	**37**	01	**−32**
Authentic	−23	00	26	02	08
Pithsome	−01	02	15	−03	−11
Unremarkable	00	00	−06	**83**	04
Indistinctive	00	02	−05	**82**	02
Characterless	04	02	−04	**73**	08
Middle-Rate	00	−03	−05	**71**	13
Unmomentous	06	−01	02	**69**	18
Unconsequential	02	−01	03	**67**	20
Nonessential	01	00	02	**66**	21
Barren	04	**32**	00	**52**	09
Unmarvellous	12	−04	−20	**41**	**35**
Anomalous	21	−03	−01	**−32**	20
Off	05	−02	07	**−48**	24
Odd	04	−01	07	**−52**	20
Distinctive	05	−02	21	**−70**	08
Unable	−01	12	−07	04	**74**
Uncapable	−01	11	−08	01	**72**
Bunglesome	−04	20	−13	01	**68**
Inexpert	−04	21	−12	04	**61**
Subnormal	13	07	−17	−02	**61**
Unsatisfactory	09	−01	−17	12	**59**
Lackall	06	14	−10	15	**58**
Faultful	14	03	−15	−01	**50**
Rotter	21	22	−05	01	28

Note. $N = 41$ sorters. $K = 75$ terms. All loadings multiplied by 100; loadings |0.30| or larger are set in bold.
[R]Reversed.

The five-factor solutions depicted in Tables 4 to 6 also include a factor denoting low intelligence (e.g., *blockheaded*, *noodle*, *woodenheaded*), which we named Stupidity. Not surprisingly, this factor has never emerged in previous studies of the Big Seven (Almagor *et al.*, 1995; Benet-Martínez, 1999; Tellegen and Waller, 1987) due to the exclusion of cognitive-ability descriptors in this and other lexical work (e.g. Angleitner, Ostendorf and John, 1990).

Other noticeable features in the five-factor structures are the largely mono-polar nature of most dimensions (with the exceptions of distinction and depravity in set 1, and unconventionality in sets 1 and 3), the large size of the distinction and depravity dimensions, and the high degree of simple structure in the factor loadings. Differences

among the three structures in factor order suggest small discrepancies in content saturation among the three sets. This is not surprising given that the 75 terms from each set were randomly selected from Norman's original pool of 760 adjectives, a procedure that unavoidably may have led to an unequal sampling of person descriptive domains in each set. This difference, nevertheless, does not override the substantial factorial overlap found across the three sets. In fact, a close inspection of the across-sets consistency of the primary loadings for those 21 terms that were repeated in more than one set confirms this conclusion: only seven of these repeated items had primary loadings that were not perfectly consistent across sets, (*bunglesome*, *inexpert*, *might-have-been*, *unconsequential*, *nonessential*, *scummy*, and *uncapable*), although three of these terms (*nonessential*, *scummy*, and *uncapable*) had secondary loadings on the expected dimensions.

In summary, results from study 1 suggest that dimensions representing distinction, worthlessness, depravity, stupidity, and unconventionality describe the conceptual (i.e. semantic) relations among our randomly selected highly evaluative personality descriptors.

STUDY 2: EXTERNAL STRUCTURE OF HIGHLY EVALUATIVE PERSONALITY DESCRIPTORS

The goal of study 1 was to explore people's implicit theories about the conceptual relations among highly evaluative personality adjectives (i.e. internal structure). In study 2 we explored the actual covariation in people of the dispositions represented by these terms (i.e. external structure).

Method

Sample
A combined sample of 180 undergraduate students (62 men and 118 women) with a mean age of 20.75 years (SD = 1.9) from the University of California at Berkeley (N = 50) and the University of Michigan (130) participated in our second study. English was the first language of all participants. A wide range of majors was represented but the majority of the participants were psychology majors.

Measures and procedure
Recall that in study 1 we used three sets of 75 adjectives so that the sorting exercise would not be excessively tiring to our participants. As suggested by the results from the sorting study, one limitation of this procedure (using three different pools of terms) is the unequal sampling of content domains across the three sets. To prevent this problem in the self-reports, terms from the three sets ($K = 225$) were combined into a single measure (with three sections corresponding to each set) and presented in alphabetical order. As in study 1, each term was followed by a synonym or short definition (identical to that used in study 1), and subjects provided self-ratings using a seven-point Likert scale.

Participants were tested in small groups during class (University of Michigan) or experimental sessions (University of California at Berkeley). They were given the following instructions:

> Your next task is to consider a number of descriptors as they may or may not apply to you. Please, read each statement carefully and respond to each with the appropriate

number. Rate each attribute as it applies to *the way you are generally* or typically, as compared with other persons you know of the same sex and age. Fill in only one response for each statement.

Self-ratings provided by participants were based on a scale that ranged from 1 (strongly disagree) to 7 (strongly agree).

Results and discussion

Elucidating the underlying structure of self-reports on our pool of highly evaluative adjectives presents a number of methodological challenges that did not apply to the semantic sortings conducted in study 1. First, due to the high (un-) desirability of many of the adjectives, we suspected that several of the young college students may have provided less than accurate self-portrayals. Thus, care was taken to screen the data for obvious random response patterns and invalid protocols. This was accomplished by creating a 23-item response inconsistency scale (Baer, Kroll, Rinaldo and Ballenger, 1999; Tellegen, unpublished manuscript) from the 21 words that were repeated more than once in the three sets from study 1 (recall than two of these 21 words appeared three times). More formally, the response inconsistency scale was created by summing the absolute differences in the item responses to the 23 pairs of repeated words. The observed distribution of this aggregate was right skewed—as expected because we summed absolute difference scores. Several scores were noticeably higher than the rest. The scores on our validity scale ranged from 0 to 59. The median score was eight and the median absolute deviation score (a robust estimate of the scale, which is similar in spirit to the standard deviation, but more informative for highly skewed response distributions) was 4.45. Response protocols were deemed invalid if a person's response inconsistency score was greater than or equal to 15 (this value represents the median plus 1.5 times the mean absolute deviation). Eleven of the 180 persons with complete data were excluded by this purposely conservative exclusion criterion.

Factor analyses

To avoid the inclusion of repeated variables in the factor analyses (remember that 19 terms appeared in two sets and two terms appeared in all three sets), scores representing the mean response across sets for each repeated term were used. This procedure left us with a final matrix of 202 variables (from the initial set of 225). Prior to the factor analyses, responses were ipsatized (i.e. within-subject standardized) to control for the potential influences of individual differences in subjects' (un-) willingness to endorse the extreme values of the response categories (Hamilton, 1968). In our experience (Benet and Waller, 1995; Benet-Martínez and Waller, 1997) and the experience of other researchers in this area (Goldberg, 1992; Hamilton, 1968; Peabody and Goldberg, 1989; Yang and Bond, 1990), ipsatizing scores prior to multivariate analyses frequently yields cleaner (better defined simple structure) factor patterns.

The first ten eigenvalues for the 202×202 correlations were 30, 14, 11.7, 10.6, 9, 7, 6, 5.6, 5.5, and 5. As in study 1, we examined varimax-, promax-, and quartimax-rotated solutions with two to six factors.[12] Selection of the final dimensional structures was guided by the scree plot, the psychological coherence of the obtained solutions, and the residual plots and goodness-of-fit indices for different solutions. We discuss the varimax-rotated solutions first.

[12]Note that the *N/k* ratio of this study (169/202 = 0.84) is quite small. Given the high degree of content saturation of our variables (i.e. the great redundancy among the 202 descriptors), this should not be a big problem (see Guadagnoli and Verlicer, 1988; for a discussion and illustration of the importance of component saturation and absolute sample size, over *N/k* ratio, in predicting factor stability).

The two-factor solution included a very large positive valence dimension plus a conventionality factor. The three-factor solution included dimensions representing positive valence, stupidity, and conventionality (note: in the two- and three-factor solutions most depravity terms had loadings smaller than 0.35). The four-factor solution included distinction, worthlessness, unconventionality, and a dimension mixing depravity and stupidity. The five-factor solution included dimensions that were conceptually narrower and represented distinction, stupidity, worthlessness, unconventionality, and depravity. The six-factor solution included two worthlessness factors (which shared many cross-loadings). The seven-factor solution was like the six-factor solution plus a small factor representing trashiness (e.g. *crummy, ordurous*).

The promax- and quartimax-rotated solutions were very similar to the varimax-rotated solutions. The oblique five-factor solution, for instance, had factor inter-correlations that were very low: the mean factor-intercorrelation was 0.11 (absolute value), and the highest correlation was -0.30 between distinction and stupidity. These results, in consideration with the psychological coherence of the previously described orthogonal solutions, the scree plot, and the residual plots and goodness-of-fit indices for different solutions pointed to the varimax-rotated five-factor solution as appropriate for the data. This solution, which accounted for 34% of the total variance, is reported in Table 7.

Table 7. Self-reports of highly-evaluative personality terms: varimax-rotated five factor solution

Items	Distinction	Stupidity	Worthlessness	Unconventionality	Depravity
Top-gallant	**81**	−13	10	−01	06
Topnotch	**78**	−11	07	02	10
Overgreat	**73**	−17	05	06	−04
Sublimish	**71**	−14	−12	10	−09
Paragon	**68**	−15	−12	09	03
Grand	**67**	−24	−06	10	00
Pluperfect	**65**	−12	−03	−04	−18
Remarkable	**64**	−06	−04	10	06
Unflawed	**62**	−07	−02	21	−35
Stellar	**62**	−25	−01	07	08
Demigod	**61**	−04	−06	−12	−05
First-rate	**61**	−22	−14	21	−04
Magnificent	**59**	−22	−20	08	03
Slap-up	**58**	−17	−26	20	−11
Overluscious	**57**	−12	−14	01	17
Swell	**54**	−24	−07	24	−13
Laureate	**51**	−05	−16	14	07
Parallelless	**51**	−15	08	−21	01
Supereminent	**51**	−12	−22	14	02
Haloed	**49**	−06	01	07	−01
Virtuoso	**49**	−04	−11	15	−22
Faultless	**49**	−12	−12	18	−11
First-class	**47**	**−40**	−05	17	12
Scrumptious	**47**	−18	−33	07	−17
Unparagoned	**45**	−21	−03	33	02
Extraordinary	**45**	−21	−20	11	−01
High-calibre	**44**	−26	−01	26	06
Smirchless	**44**	−15	−06	−30	−36
Prowessful	**43**	00	−17	−13	07

Continues

Table 7.   *(Continued)*

Items	Distinction	Stupidity	Worthlessness	Unconventionality	Depravity
Exceptional	**42**	−12	−07	29	19
Proficient	**40**	−21	10	05	01
Unparallellable	38	−21	05	30	05
Excelled	35	−32	06	14	19
Stainless	34	04	−10	−27	−33
Virtuous	33	12	−22	−28	−15
Honorable	28	−15	−05	03	−10
Authentic	26	13	−23	26	−12
Sensational	25	09	−21	−01	−16
Plain	−27	21	20	−24	−09
Unable	−34	31	26	−22	04
Uncapable	−35	11	32	04	−08
Piddling	−36	−18	04	06	−02
Might-have-been	−37	−05	24	−07	−04
Lumpish	−38	−10	14	−24	−20
Unexcellent	−39	31	07	−05	−09
Faultful	**−40**	07	11	−10	24
Bunglesome	**−41**	18	15	00	−13
Acceptable	**−43**	−08	−31	**−40**	−06
Unsatisfactory	**−44**	07	31	−07	07
Loutish	**−44**	−13	03	−28	−15
Unexemplary	**−49**	22	16	04	37
Fallible	**−50**	02	03	−11	−01
Middle-rate	**−51**	−07	28	01	−15
Inexpert	**−52**	−12	39	13	−06
Unremarkable	**−52**	−19	36	18	−13
Unmarvelous	**−52**	22	02	−01	−03
Undeserving	**−55**	03	25	17	−03
Unenviable	**−58**	00	37	19	04
Nonexpert	**−60**	−03	02	06	−03
Unideal	**−64**	04	01	−08	−16
Wooden-headed	−19	**82**	05	−04	−06
Lunkhead	−18	**81**	05	−04	02
Half-witted	−17	**77**	−08	−04	−20
Blockheaded	−20	**75**	08	−01	−19
Beef-witted	−19	**74**	09	17	−06
Snipe	−08	**73**	−08	−13	−08
Noodle	−24	**71**	21	−04	−04
Stupe	−06	**71**	04	07	−15
Prune	−15	**66**	02	−18	−03
Moronic	−19	**64**	01	−04	−25
Brainless	−25	**59**	−04	25	14
Cipher	−19	**57**	26	−03	−24
Gump	−09	**56**	26	05	15
Ninnyish	−19	**56**	16	−03	12
Doltish	−16	**54**	−02	−05	04
Blear-witted	−24	**54**	05	22	14
Good-for-nothing	−19	**46**	27	−04	−05
Gooney	−09	**43**	−02	−25	−25
Blunderhead	−10	**42**	−09	16	−16
Lousy	−24	**40**	23	−04	09
Cockbrained	−27	39	−03	31	−10

Continues

Table 7. *(Continued)*

Items	Distinction	Stupidity	Worthlessness	Unconventionality	Depravity
Scummy	−03	37	19	27	15
Lackall	−17	32	24	−02	−04
Rotter	−25	27	−04	−03	19
Crude	−19	22	12	−18	−02
Third-class	−15	16	09	10	−11
Pill	−09	−19	−05	14	10
Consequential	16	−22	−17	−21	19
Honourless	−06	−22	10	05	−01
Cad	−13	−22	22	09	03
Base-minded	−20	−24	−19	00	18
Buzzard	−03	−27	−20	16	13
Disagreeable	−11	−36	−10	−08	14
Unconsequential	−30	09	**74**	17	08
Unmomentous	−32	04	**74**	12	−08
Inessential	−15	11	**67**	−07	−10
Meaningless	−10	16	**61**	11	02
One-horse	**−40**	09	**58**	13	−02
Nonessential	**−47**	−06	**58**	−09	−06
Unnecessary	−20	−05	**55**	00	−40
Lackluster	**−43**	−09	**53**	17	**−04**
Subnormal	−17	29	**53**	12	37
Barren	−35	11	**52**	25	−03
Unmeritorious	−38	04	**47**	12	16
Ungifted	**−42**	−07	**46**	04	−16
Dislustred	−30	−08	**43**	00	04
Pointless	−21	13	**41**	−37	−33
Negligible	−24	−05	39	−35	14
Unbonny	−30	29	38	07	03
Chaffy	−34	37	37	01	−26
Ungenuine	−08	04	37	10	12
Unadmirable	−21	04	33	08	15
Insufferable	02	21	29	−12	18
Menial	07	−02	29	25	20
Crummy	00	−02	24	12	23
Repulsive	02	11	20	−12	10
Scalawag	−10	−02	−16	06	13
Assish	14	12	−20	07	−18
Cattle	06	21	−22	00	14
Derisible	06	00	−23	−02	11
Baseborn	00	01	−26	07	24
Contemptible	−07	17	−27	−08	07
Pithsome	−03	−27	−29	−15	18
Abundant	−15	−05	−29	12	08
Respectworthy	34	06	−35	29	09
Engraced	05	−16	−37	26	03
Disgraced	−18	−07	−38	23	08
Gem	**40**	−09	**−40**	37	07
Nifty	19	−09	**−47**	37	07
Honey	04	−10	**−48**	30	−18
Good	22	−22	**−52**	14	−02
Considerable	08	−12	**−61**	30	19
Loveworthy	31	−14	**−62**	14	05

Continues

Table 7.   *(Continued)*

Items	Distinction	Stupidity	Worthlessness	Unconventionality	Depravity
Swellish	33	00	**−64**	22	−08
Odd	23	−09	−01	**77**	00
Oddish	12	−08	12	**75**	13
Bizarre	11	−11	09	**72**	−02
Balmy	00	−09	01	**70**	−13
Outre	04	00	−11	**68**	−06
Daft	17	08	−02	**67**	03
Off	15	−14	09	**65**	15
Peculiar	20	−11	10	**64**	10
Anomalous	11	−01	14	**60**	23
Cataclysmal	−07	03	−08	**57**	−04
Uncommon	15	03	−03	**55**	14
Crackbrained	13	09	−06	**44**	34
Cracked	29	08	−09	**42**	−05
Goosish	18	15	−18	38	−13
Tomfool	16	23	−17	37	02
Novel	22	−21	−18	35	08
Misbeseeing	00	03	−02	26	11
Distinctive	04	−07	−21	24	04
Denigrated	11	11	−04	−11	00
Adorable	17	18	−25	−35	−14
Balanced	−09	−22	−14	−37	−01
Competent	12	−26	−34	**−41**	11
Respectable	10	11	−37	**−46**	01
Well-doing	**43**	14	−28	**−48**	−24
Indistinctive	−25	−04	21	**−54**	04
Commendable	−13	−06	−32	**−55**	06
Characterless	18	−14	10	**−57**	−14
Evildoer	−13	−11	−24	09	**62**
Damnable	−06	13	01	02	**61**
Rat	−17	−08	−17	12	**55**
Scoundrel	−18	−13	−12	05	**54**
Pukish	−27	−05	−10	−04	**52**
Cursed	01	−07	−01	11	**51**
Dreggy	00	06	33	−09	**51**
Inglorious	05	−10	−03	−28	**48**
Demeaned	19	01	09	−17	**48**
Unsufferable	−09	−01	07	17	**47**
Nefarious	−14	−17	−33	−05	**45**
Flagrant	−05	−11	00	03	**45**
Base	−10	−21	−07	01	**45**
Wrong-hearted	06	−22	−04	11	**44**
Beastly	−08	24	−12	09	**43**
Arrant	−23	−17	−09	00	39
Stained	07	−10	−02	−17	37
Ignominious	09	02	−05	−13	37
Fallen	17	−20	19	01	36
Deprolable	−07	30	−12	−06	34
Dastardly	12	14	−18	04	34
Warped	04	−29	17	32	34
Reprehensible	−28	−04	−12	05	33
Blot	16	14	−05	00	31

Continues

Table 7.   *(Continued)*

Items	Distinction	Stupidity	Worthlessness	Unconventionality	Depravity
Ordurous	−12	−07	−25	−09	31
Disparageable	13	01	10	−21	30
Bounder	−07	−12	−20	02	21
Disgraceful	01	−03	05	04	08
Noble	06	−07	−13	−14	−16
Uncrooked	−05	02	−03	−06	−20
Unsmirched	−13	04	02	−04	−19
Unfallen	01	−22	−05	−05	−23
Futile	27	14	04	17	−28
Worthless	14	25	28	−10	−31
Null	−28	17	20	08	−31
Undebased	15	00	−13	04	−34
Peachy	14	27	−33	−21	−36
Unharmful	06	−09	−22	−19	−38
Unmarred	−14	−20	−07	13	**−40**
Unstained	27	−05	−08	−22	**−44**
Undepraved	29	00	−10	−20	**−49**

Note. $N = 169$. $K = 202$ terms. All loadings multiplied by 100; loadings |0.40| or larger are set in bold.

A first glance at the five-factor solution reveals the presence of the same five recognizable dimensions that appeared in the three structures reported in study 1, namely distinction (*topgallant*, *topnotch*, versus *unideal*, *nonexpert*), stupidity (*wooden-headed*, *lunkhead*), worthlessness (*unconsequential*, *unmomentous*, versus *loveworthy, considerable*), unconventionality (*characterless*, *indistinctive*, versus *odd*, *bizarre*), and depravity (*evildoer*, *damnable*, versus *undepraved*, *unstained*). Note, however, that unlike the case in the semantic-sorting structures reported for sets 2 and 3, all the dimensions in the self-report structure (except stupidity) are bipolar.

The emergence of negative poles in the distinction and depravity dimensions is particularly worth noting. In the case of distinction, the presence of a large low pole denoting mediocrity replicates findings from other self-report studies of evaluative terms where a bipolar Positive Valence dimension emerged (Benet-Martínez and Waller, 1997; although in the studies of Tellegen and Waller, 1987; Almagor *et al.*, 1995, this negative pole is quite modest). The smallish negative pole of depravity, on the other hand, stands out against the monopolarity typically found for this dimension (Negative Valence) in other self-report studies of evaluative terms (Benet-Martínez and Waller, 1997; Tellegen and Waller, 1987; although see Almagor *et al.*, 1995); the emergence of this (smallish) pole, however, is perhaps not surprising given the much larger number of highly evaluative terms used in the present study, relative to most Big Seven studies.

Also noteworthy is the negative pole of unconventionality, which is defined not only by markers of unoriginality (*indistinctive, characterless*) but also of social decorum (*respectable, well-doing*). The meaning added by this later descriptor class fits well with the original definition by Tellegen and Waller (1987) of Conventionality in the Big Seven model, a dimension which contrasts a conventional, hyper-socialized disposition (e.g. *well-behaved, traditional*) against terms denoting a progressive and unconventional life style (e.g. *strange, radical*).

A final noteworthy difference between the semantic sortings and self-report structures is the lower percentage of total variance accounted for by the self-report factors and their

lesser degree of simple structure (notice the presence of several cross-loadings at or above 0.40, particularly for worthlessness markers), supporting findings from other studies comparing trait internal and external structures (Peabody and Goldberg, 1989).

When trying to quantitatively measure the similarity of the self-report structure depicted in Table 7 with the internal structures reported in Tables 4 to 6, standard factor comparison techniques, such as congruence coefficients or multi-sample confirmatory factor analysis, could not be used since the stimuli used across our two studies were not identical. As an alternative, for each factor, we computed the percentage of markers (i.e. terms with loadings equal or higher than 0.40) that had primary loadings on similar dimensions in the sorting structures. The percentages were as follows: 89% for depravity, 85% for stupidity, 79% for unconventionality, 76% for worthlessness, and 72% for distinction. As these numbers indicate, with the exception of distinction and worthlessness, the overlap is quite high. A close look at the self-report terms with discrepant loadings in the sorting structures reveals that this less than perfect overlap between the sorting and self-report structures is mostly caused by the unique bipolarity of the self-report dimensions (see our previous discussion of the emergent poles for distinction, depravity valence, and unconventionality).[13]

In summary, results from the self-report data largely replicate (with some noteworthy differences) structural findings from study 1 and suggest that dimensions representing distinction, stupidity, unconventionality, worthlessness, and depravity, best organize the actual covariation of the dispositions represented in our sample of highly evaluative personality adjectives, and Norman's (1967) excluded category of 760 evaluative terms more generally.

GENERAL DISCUSSION

The main goal of this work was to explore the organization and psychological relevance of so-called 'highly evaluative' personality terms (e.g. *exceptional*, *scoundrel*, *bizarre*), a type of personality descriptor that has been historically excluded from the personality taxonomic literature (Allport and Odbert, 1936; Cattell, 1943; Norman, 1967). With that goal in mind, we identified the basic dimensions underlying both semantic-similarity sortings and self-reports, on several representative samples of highly evaluative personality terms.

Four main theoretical issues motivated our research. First, examining the conceptual and self-report structure of highly evaluative personality terms is important given contemporary views that evaluative judgments are at the core of several personality processes (O'Brien and Epstein, 1988; Paulhus and John, 1998), and are uniquely informative about social attributes and behaviours important for human survival (Borkenau, 1990; Buss, 1991; Hogan, 1982; Tellegen, 1993). Second, to the extent that traditional lexical models of personality (e.g. the Big Five) have systematically excluded highly evaluative terms, it is important to explore how much these expressions inform us

[13]One possible reason behind the monopolarity of the sorting structures is that not enough antonym piles were generated by our participants in the semantic sorting exercise for bipolar definitions of the factors to emerge; if true, this finding would suggest perhaps an interesting form of 'cognitive economy', one that makes conceptualizing opposite-meaning attributes (e.g. *topnotch* and *unsatisfactory*) as two unrelated constructs (i.e. putting them in two separate piles) 'easier', that is, less cognitively effortful, than integrating them into a single (but complex) oppositional construct, despite the fact that, in actuality, these two attributes probably covary (negatively) in people.

about psychological domains perhaps not well represented in these models (although note that our exploratory study does not directly address this issue). Third, examining the self-report structure of highly evaluative personality terms can help clarify and expand the conceptual scope of existing evaluative constructs such as Positive and Negative Valence (Tellegen and Waller, 1987) and the 'superhero' and 'sainthood' complexes (Paulhus and John, 1998). Lastly, numerous studies have examined and compared self-report and semantic-similarity sorting structures for traits and affects (e.g. Church and Katigbak, 1989; Russell, 1978; Watson, Clark and Tellegen, 1984), but this issue had yet to be addressed in the domain of evaluation.

In study 1 we examined the structure of semantic-similarity sortings collected on three sets of adjectives randomly selected from Norman's (1967) excluded category of 'evaluative' personality terms. We were able to identify a set of five dimensions—distinction, worthlessness, depravity, stupidity, and unconventionality—that was common to all three sets.

In study 2 we examined the structure of self-reports collected on a larger sample of highly evaluative personality descriptors that combined the terms used in study 1. Analyses yielded a five-factor structure with dimensions conceptually similar to those uncovered in the sorting data. One significant difference between the sorting and self-report structures was that most of the self-report dimensions were clearly bipolar. As mentioned earlier, this difference is probably rooted in a combination of psychometric and conceptual factors. First, study 2's reliance on a much larger sample of terms is probably linked to the broader factor definitions obtained in the self-report structure. Second, the cognitive economy typically associated with semantic-similarity sortings (Peabody and Goldberg, 1989) may have influenced participants' ability to classify opposite meaning terms into antonym piles, leading to fewer bipolar factor definitions in the sorting data. Lastly, the ipsatization of the self-report data may have emphasized the bipolarity of the self-report dimensions (see Hamilton, 1968, for a discussion of how ipsatization helps to control for response bias, a type of influence that often obscures the true bipolarity of dimensions). Despite these differences, the overlap between the external and internal structures is quite high, as indicated by the percentage of self-report and sorting factor markers with primary loadings on similar dimensions. Next we discuss the implications of this overlap for the ontological status of highly evaluative personality terms.

Overlap between internal and external structures

In the introduction we discussed several arguments proposed to explain the overlap between external and internal structures for traits and affects. A favored view argues that overlap occurs because similarity judgments reflect not only people's conceptual understanding of the particular attributes but also people's own memory of how these attributes covary in their lives (Borkenau, 1992; Schimmack and Reisenzein, 1997). In the context of our studies, should we also have expected a high degree of similarity between external and internal structures for highly evaluative personality descriptors?

Recall the contention made by researchers who excluded 'evaluative' descriptors in their taxonomic studies (Allport and Odbert, 1936; Cattell, 1943; Norman, 1967), that is, that these descriptors are too ambiguous and void of descriptive components to be behaviourally informative. If this view were valid, then one would expect the overlap between internal and external structures for these terms to be low. This argument works as follows: if highly evaluative personality descriptors are too extreme and ambiguous to

capture reliable conceptual, personality-relevant variance, then self-reports on these descriptors should mostly represent *response bias* and yield two 'purely' evaluative dimensions separating desirable and undesirable terms, rather than yielding content personality dimensions).[14] Relative to self-reports, however, semantic-similarity sortings on these terms should be more likely to yield meaningful (i.e. content-relevant) dimensions, given that similarity sortings are clearly guided by objective *meaning* assessment rather than by protective self-description (as in the self-reports).

Clearly, results from our studies do not support this argument. Structures obtained from self-reports and semantic-similarity sortings were quite similar at the structural and conceptual level. This finding suggests that, regardless of the rating methodology used, the conceptual component of so-called 'highly evaluative' descriptors accounts for more variance than their purely evaluative constituent. In short, one conclusion that warrants consideration is that typically excluded highly evaluative personality terms, far from being behaviourally ambiguous and psychologically uninformative, allude to meaningful dispositions that people both implicitly understand and possess to different degrees. In the next section we discuss the meaning of these dispositions and their relevance to personality description.

How relevant to personality are the uncovered dimensions?

Results from our studies of highly evaluative personality descriptors indicate that variance from both semantic-similarity sortings and self-reports is organized along five dimensions representing distinction, worthlessness, depravity, unconventionality, and stupidity. Notice that these dimensions (except stupidity) capture the three evaluative elements that are unique to the Big Seven (Tellegen and Waller, 1987), namely, Positive Valence, Negative Valence, and the evaluative component of Openness to Experience (i.e. perceptions of conventionality–eccentricity). Positive Valence, or its subcomponents, is represented in our studies by the two dimensions we named distinction and worthlessness. A dimension resembling Negative Valence (depravity) was clearly represented in our data. The Big Seven's conventionality–eccentricity component is captured by our unconventionality dimension. These conceptual correspondences are noteworthy given the independence between traditional Big Seven studies—which typically rely on samples of dictionary-based terms that include many Big Five markers—and our two studies, which relied solely on terms from Norman's excluded 'evaluative' category. These findings also suggest that personality evaluative judgments are organized around the basic domains of morality (i.e. depravity), power (distinction and worthlessness), peculiarity (unconventionality), and intelligence (stupidity).

The particular relevance to personality research of the above evaluative domains (and of highly evaluative personality terms in general) deserves some discussion. As suggested by a reviewer, obtaining self- or other-ratings on the evaluative domains of morality, power, peculiarity, and intelligence may prove particularly useful in the following cases: (1) in

[14]Notice that the Positive and Negative Valence dimensions reported in Big Seven studies (Almagor *et al.*, 1995; Benet-Martínez and Waller, 1997; Tellegen and Waller, 1987) are not simply two 'purely' evaluative (i.e. meaning-empty) dimensions separating desirable and undesirable terms. In these studies, Positive and Negative Valence are each defined by clusters of terms which share unique descriptive variance (one dimension denotes power and the other morality), rather than just desirability or undesirability. In fact, in some of these studies (Almagor *et al.*, 1995; Benet-Martínez and Waller, 1997), Positive and Negative Valence emerge as separate bipolar dimensions each containing a combination of desirable and undesirable terms. Furthermore, most Big Seven studies have relied on a limited number of evaluative terms which may explain why only two independent evaluative dimensions were uncovered.

professional settings where anonymous person descriptions are needed (e.g. instructional or managerial evaluations), (2) in clinical settings where honest self-disclosure is desirable; (3) when coding free person descriptions such as those found in biographies, diaries, legal proceedings, testimonials, political campaigns, etc. Furthermore, ratings on highly evaluative personality descriptions may prove useful in understanding cultural differences in natural personality judgments (e.g. work on parental child personality descriptions by Kohnstamm, Halverson, Mervielde, and Havill, 1998, indicates differential cultural sensitivities to the use of negative terms). Next we discuss each of the five evaluative dimensions obtained in our study in terms of its meaning and heuristic value.

The emergence of two separate factors tapping different components of Positive Valence is particularly noteworthy. Why did our highly evaluative terms define distinction and worthlessness factors instead of forming a single Positive Valence dimension? Methodologically, this is perhaps not surprising given that all Big Seven studies (e.g. Almagor *et al.*, 1995; Benet-Martínez and Waller, 1997; Tellegen and Waller, 1987) have relied on smaller pools of evaluative descriptors. Psychologically, on the other hand, the differentiation between distinction and worth seems meaningful and in accordance with the recent theoretical differentiation between 'self-competence' and 'self-liking' components of self-esteem (Tafarodi and Swann, 1995).[15] Self-competence and self-liking, like distinction and worthlessness in our studies, differentiate between the *success*- or competence-related components of esteem and those related to *personal worth*. The psychological relevance and psychometric independence of distinction and worthlessness is further supported by recent evidence showing that self-competence and self-liking, despite being often highly associated, have different psycho-developmental and cultural correlates (Tafarodi and Swann, 1995, 1996).

Consider our depravity findings. This dimension underscores an element of person description that is receiving renewed attention: the moral dimension of personality (Bandura, 1999; Cawley, Martin and Johnson, 2000). Notice that depravity markers (e.g. *evildoer*, *damnable*, *rat* versus *unmarred*, *unstained*, *undepraved*) relate to individuals' judgments of malice–virtue, a type of person evaluation that recent socio-evolutionary views of morality (Kirkpatrick, 1999), shame, guilt (D'Arms, unpublished dissertation), and evil (Baumeister and Campbell, 1999), describe as an universal perceptual mechanism that is basic for survival. Given the recent evidence showing that inflated, overpositive self-views, when combined with an ego threat, often lead to immoral and violent behaviour (Baumeister, Smart and Boden, 1999), future research should examine the relation between high levels of *self-reported* distinction and (low) worthlessness and *observer-reports* of depravity.

The robustness of depravity in our studies also speaks to the scope of esteem-related processes by underscoring the role that morality perceptions play in evaluating people. This would suggest that traditional models and measures of self-esteem (which typically define esteem in terms of competence and/or worth solely) might benefit from incorporating perceptions of morality in their theories. The significance of moral perceptions in evaluating people is further supported by person perception research showing that people attend to and weight morality information more than competence

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[15]Examples of the items of Tafarodi and Swann measuring 'self-liking' are 'I am secure in my sense of self-worth,' and (reverse) 'I feel worthless at times'. Examples of 'self-competence' items are 'I perform very well at a number of things' and 'I am talented'.

information when forming impressions and expectations about others (De Bruin and Van Lange, 2000; Wojciszke, Bazinska and Jaworski, 1998).

With regard to the psychological relevance of unconventionality, we believe that the eccentricity–conventionality continuum defined by our highly evaluative terms (e.g. *odd*, *bizarre*, *peculiar* versus *indistinctive*, *characterless*, *respectable*) broadens and clarifies the psycho-lexical boundaries of the Big Five's Openness to Experience dimension. This view is clearly spelled out by Waller (1999) in his interpretation of the Big Seven's Conventionality dimension: 'People who are relatively "closed" to new experiences describe themselves in conventional terms; they espouse traditional values and beliefs and have natural respect for authority and rules. Individuals who are "open" to their environment . . . describe themselves as being progressive and radical. Being excessively open has its dangers, however . . . other less open individuals may describe you as being *odd*, *strange*, and *peculiar*' (p. 19). One way to clarify and establish the meaning and predictive validity of unconventionality would be to study the relation between this construct and clinical observations of the 'eccentric personality' (Week and Turner, 1996). Specifically, unconventionality may prove useful in validating the observations by Week and Turner that eccentric people are extremely high in Openness traits such as absorption and novelty seeking, have positive mental and physical health (contrary to popular belief), but also frequently experience feelings of 'marginality'.

Finally, the emergence of a stupidity dimension, and its stability across sorting sets and across internal and external structures, is also worth discussing. Recall that this dimension has never emerged in other lexical studies using pools of terms that included evaluative descriptors (Benet-Martínez and Waller, 1997; Tellegen and Waller, 1987). Given that these lexical studies included few (or zero) markers of low intelligence (e.g. see *idiotic* in Table 1 from Benet-Martínez and Waller, 1997), the presence of a stupidity dimension in our data is interesting but not surprising. In fact, a close examination of the structure reported in the original study by Tellegen and Waller (1987) reveals the presence of only six terms denoting low intelligence (*stupid*, *pinheaded*, *thick*, *oafish*, *chuckleheaded*, *dense*), all loading on the Negative Valence factor. Conceptually, on the other hand, our stupidity dimension captures evaluative judgments of cognitive abilities, a domain that most psychologists believe falls outside the focus of personality psychology (McCrae and Costa, 1985; although see indirect measures of intelligence in the personality measures of Gough, 1996; Hogan and Hogan, 1992). Stupidity, therefore, unlike the other four dimensions uncovered in our studies, may not prove as informative regarding personality-relevant evaluative processes, unless one is interested in 'neurotic stupidity', an obscure psychodynamic construct used to describe the defensive self-ascribed feelings of intellectual incompetence often associated with 'infantile personality' (Oberndorf, 1939; Van Bark, 1954).

Another prominent feature in the structures uncovered in our studies is the overrepresentation of negative (i.e. undesirable) terms over positive ones. An inspection of Table 7 reveals that 135 terms, out of 202, are negative (a ratio of 67%). The predominance of negative descriptors in our samples of highly evaluative adjectives (and Norman's evaluative category) is potentially informative about specific socio-cognitive processes involved in personality perception. Specifically, it suggests that verbalized evaluations of human character and behaviour are disproportionally negative. One possible reason for this is that perceptions of undesirable human attributes (e.g. being immoral), relative to desirable ones (e.g. being moral), are more powerful in eliciting affective judgments (i.e. evaluations) from people. This interpretation would be in accordance with

the 'negativity bias' in affective processing reported in the social-cognition literature (Fiske, 1980; Ito, Larsen, Smith and Cacioppo, 1998; Wojciszke *et al.*, 1993; but see Martijn, Spears, Van der Pligt and Jakobs, 1992). At the same time, the predominance of negative descriptors in our dimensions may reflect possible overlooked nuances in Norman's (1967) exclusionary decisions. Specifically, it suggests that in 'evaluating' what an 'evaluative' personality descriptor is, Norman may have favoured negative terms over desirable ones.

Given the primarily exploratory nature of our studies, our findings are inconclusive with regard to at least two important issues. First and most importantly, because we did not explore the overlap/specificity between our dimensions and the Big Five, we cannot yet draw definite conclusions about the degree to which distinction, worthlessness, depravity, and unconventionality dimensions inform about possible domains of personality neglected in traditional models of personality. Future studies should explore this issue in the context of not only the Big Five but also other relevant personality constructs such as narcissism, self-esteem, and morality (Benet-Martínez, manuscript in preparation). Second, the cultural, linguistic, and perceptual generalizability of our findings is limited by the fact that our studies relied exclusively on one language (English) and on one type of target (self-reports). Future studies should examine the organization and psychological relevance of highly evaluative personality terms in other languages and cultures and on other types of target such as peer-reports or reports of strangers.

Conclusion

The two studies reported in this paper have shown that typically excluded English highly evaluative personality descriptors, far from being behaviourally ambiguous and psychologically uninformative, allude to meaningful dispositions that people implicitly understand and posses to different degrees. The dispositions identified in our studies— distinction and worthlessness (two facets of Positive Valence), depravity, unconvention- ality, and, to a lesser extent, stupidity (for reasons outlined earlier)—are informative regarding the conceptual scope of the Big Seven factor model. Furthermore, these dimensions may underscore meaningful personality variance that has been overlooked in traditional personality models. This claim, however, needs to be tested by future studies where the statistical independence/overlap between our dimensions and traditional personality dispositions, such as those represented in the Big Five, is examined. Similarly, future research should examine the value of distinction, worthlessness, depravity, and unconventionality to predict important self-esteem related outcomes, and the association between these dimensions and self-perception biases (Paulhus and John, 1998) and multidimensional measures of self-esteem (O'Brien and Epstein, 1988; Tafarodi and Swann, 1995).

In conclusion, we believe that our findings attest to the idea that evaluative judgments, even extreme ones, are an integral component of human personality description.

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APPENDIX: THREE SETS OF HIGHLY EVALUATIVE TERMS RANDOMLY SELECTED FROM NORMAN'S (1967) EXCLUSION CATEGORY 1.2

Set 1

ACCEPTABLE; Allowable; Satisfactory
ADORABLE; Delightful; Charming; Lovely
ARRANT; Notoriously bad
ASSISH; Resembling an ass, Stupid; Obstinate
BALANCED; Emotionally stable
BALMY; Mildly insane; Eccentric
BASE-MINDED; Morally low-minded
BLOCKHEADED; Stupid; Unintelligent
BLUNDERHEAD; Stupid; Ignorant
BOUNDER; A vulgar person of obtrusive manners
BUZZARD; Rapacious; Avaricious person
CIPHER; Insignificant; Worthless
CONSIDERABLE; Important; Significant
CONTEMPTIBLE; Worthy of contempt; Deserving disdain
CRACKBRAINED; Crazy; Reasonless
DEMIGOD; One so prominent in intellect, power, ability, beneficence, or appearance
  as to seem to approach the divine
DENIGRATED; Dishonoured; Defamed
DISAGREEABLE; Ill-tempered; Irritable
DISGRADED; Disgraced; Abased
ENGRACED; Favoured; Brought into favour
EXCELLED; One who surpasses others or is superior in some respect
FALLEN; Degraded or immoral, having lost one's chastity
FALLIBLE; Liable to err
FAULTLESS; Without fault; Free from defect
FIRST-CLASS; Of the highest grade; Excellent
FOOLISH; Repulsive; Repellent
GOONEY; Idiot
HALF-WITTED; Foolish; Stupid
HIGH-CALIBRE; Of high degree of excellence
HONOURLESS; Not of dignity; Not of respect
INESSENTIAL; Not necessary; Needless
INEXPERT; Inexperienced; Not skilled
LOUSY; Contemptible; Disgusting
LOUTISH; Awkward; Clumsy; Boorish
LUMPISH; Sluggish; Dull; Clumsy
LUNKHEAD; Blockhead; Imbecile
MIGHT-HAVE-BEEN; A person who might have amounted to something
NIFTY; Attractively smart or stylish; Fine
NONESSENTIAL; Not of prime or central importance; Dispensable
NULL; Of no efficacy; Invalid
OFF; Away from what is considered normal, regular, or standard
OUTRE; Extravagant; Bizarre

OVERGREAT; Above and beyond great; Markedly superior
OVERLUSCIOUS; Having excessive sensual appeal
PARALLELLESS; Unmatched; Without equal
PIDDLING; Trifling; Trivial
PLAIN; Not intricate; Simple
PLUPERFECT; More than perfect
POINTLESS; Without meaning or relevance
PROFICIENT; Well advanced in any occupation or knowledge
PUKISH; Offensive
RAT; Scoundrel; Villain
RESPECTWORTHY; Worthy of respect (honor)
SCOUNDREL; Dishonorable man; Villain
SCUMMY; Low class; Worthless
STAINLESS; Spotless; Pure
STELLAR; Of brilliance; Outstanding
SUBLIMISH; Magnificent; Superb
SUPEREMINENT; Extremely distinguished
THIRD-CLASS; Pertaining to a class or rank next below the second
UNCAPABLE; Incapable; Unable
UNCOMMON; Not ordinarily encountered; Unusual
UNCONSEQUENTIAL; Inconsequential; Unimportant
UNEXCELLENT; Not of high quality
UNEXEMPLARY; Not commendable; Not meritorious
UNFLAWED; One who has no shortcomings
UNGENUINE; Not real; Fake
UNHARMFUL; Not able to cause harm
UNIDEAL; Not a model of excellence; Not exemplar
UNMARRED; Not defaced; Not blemished
UNNECESSARY; Not necessary; Needless
UNPARALLELLABLE; Having no equal; Unmatchable
UNSMIRCHED; Not dishonored or defamed
WELL-DOING; Kind-hearted; Diligent
WORTHLESS; Lacking merit or worth

Set 2

BEASTLY; Nasty; Disagreeable
BEEF-WITTED; Stupid; Dull
BIZARRE; Odd; Extravagant
BLOCKHEADED; Stupid; Unintelligent
BLOT; Disgrace; Blemish
BUNGLESOME; Inept; Inefficient
BUZZARD; Rapacious; Avaricious person
CAD; With ungentlemanly manners
CATACLYSMAL; Bursting; Catastrophic
CHAFFY; Trivial; Worthless
COMMENDABLE; Laudable; Praiseworthy
CRACKED; Flawed; Crazy

CRUDE; Unpolished; Unprepared
CRUMMY; Cheap; Trashy
DAFT; Insane; Ridiculous
DAMNABLE; Detestable; Odious
DASTARDLY; Treacherously cowardly
DEMEANED; Debased in dignity or stature
DEPLORABLE; Lamentable; Calamitous
DISGRACEFUL; Deserving disgrace; Dishonorable
DISLUSTERED; Deprived of radiance or distinction
EVILDOER; Wrongdoer; Malefactor
EXCEPTIONAL; Remarkable; Extraordinary
FLAGRANT; Notorious; Scandalous
FUTILE; Frivolous; Trivial
GEM; Person held in great esteem or affection
GOOD; Pleasing; Satisfactory
GOOD-FOR-NOTHING; Useless; Worthless
HALF-WITTED; Foolish; Stupid
HALOED; Possessing quality of glory, majesty, sanctity
HONORABLE; Nobel; Illustrious
IGNOMINIOUS; Contemptible; Discreditable
LACKLUSTER; Lacking brilliance; Dull
LOVEWORTHY; Worthy of affection
MAGNIFICENT; Brilliant; Splendorous
MEANINGLESS; Purposeless, without meaning, significance or value
MENIAL; Servile; Slavish
MIGHT-HAVE-BEEN; A person who might have amounted to something
MORONIC; Stupid; Lacking good judgment
NEFARIOUS; Extremely wicked
NEGLIGIBLE; Insignificant; Trifling
NINNYISH; Fool; Simpleton
NOBLE; Honorable; Reputable
NONEXPERT; Not an expert
NOODLE; Stupid; Simpleton
NOVEL; Original or striking in conception or style
ODDISH; Strange; Queer
ONE-HORSE; Small and unimportant
ORDUROUS; Filthy; Obscene
OVERGREAT; Above and beyond great; Markedly superior
PEACHY; Sweet; Fair
PECULIAR; Strange; Unusual
PIDDLING; Trifling; Trivial
PRUNE; Simpleton; Fool
REMARKABLE; Extraordinary; Unprecedented
SCALAWAG; Scamp; Rascal
SCRUMPTIOUS; Delectable; Splendid to the senses
SCUMMY; Low class; Worthless
SENSATIONAL; Melodramatic; Emotional
STUPE; Stupid

TOMFOOL; Foolish and silly
TOPGALLANT; Grand; The best
TOPNOTCH; First-rate; Unsurpassed
UNADMIRABLE; Censurable; Reproachable
UNCAPABLE; Incapable; Unable
UNCROOKED; Unbent; Straight
UNENVIABLE; Not desirable
UNFALLEN; Not falling back in performance
UNFLAWED; One who has no shortcomings
UNGIFTED; Not talented
UNMARRED; Not defaced; Not blemished
UNMERITORIOUS; Not deserving of praise
VIRTUOUS; Morally good
WARPED; Mentally twisted; Perverted
WRONG-HEARTED: Wrong or perverse in feeling; Unjust

Set 3

ABUNDANT; More than adequate
ANOMALOUS; Abnormal; Deviant
AUTHENTIC; Trustworthy; Credible
BARREN; Uninteresting; Dull
BASE; From low moral standards; Valueless
BASEBORN; Plebeian; Vile
BLEAR-WITTED; Dim-witted; Dull of mind
BRAINLESS; Witless; Mindless
BUNGLESOME; Inept; Inefficient
CATTLE; Class of contemptible human beings
CHARACTERLESS; Without individuality; Dependent
COCKBRAINED; Foolish; Scatterbrained
COMPETENT; Characterized by marked or sufficient aptitude, skill, strength,
or knowledge
CONSEQUENTIAL; Pompous; Self-important
CURSED; Deserving to be condemned; Detestable
DAMNABLE; Detestable; Odious
DEMIGOD; One so prominent in intellect, power, ability, beneficence,
or appearance as to seem to approach the divine
DERISIBLE; Worthy of derision or scorn
DISPARAGEABLE; Unworthy; Discredited
DISTINCTIVE; Unique; Singular
DOLTISH; Stupid; Foolish
DREGGY; Dirty; Repulsive
EXTRAORDINARY; Exceptional; Unusual
FAULTFUL; Full of imperfections and errors
FIRST-RATE; Excellent
FLAGRANT; Notorious; Scandalous
GOOSISH; Silly; Foolish
GRAND; Magnificent; Splendid

GUMP; Foolish; Dull person
HONEY; Sweet; Beloved
INDISTINCTIVE; Without unique characteristics
INEXPERT; Inexperienced; Not skilled
INGLORIOUS; Disgraceful; Disreputable
INSUFFERABLE; Intolerable; Unbearable
LACKALL; A person who lacks everything
LAUREATE; Distinguished; Honored
LOUSY; Contemptible; Disgusting
MIDDLE-RATE; Mediocre
MISBESEEMING; Not appropriate
NONESSENTIAL; Not of prime or central importance
ODD; Strange; Eccentric
OFF; Away from what is considered normal, regular, standard
PARAGON; A model of excellence
PEACHY; Sweet; Fair
PILL; Tiresome; Disagreeable person
PITHSOME; Forceful; Strong
PROWESSFUL; Of exceptional valor; Bravery
REPREHENSIBLE; Deserving blame or censure
RESPECTABLE; Reputable; Estimable
ROTTER; Blackguard; Lazy person
SLAP-UP; First rate; Fine; Excellent
SMIRCHLESS; Clean; Without blemish
SNIPE; A fool
STAINED; Disreputable; Dishonoured
STUPE; Stupid
SUBNORMAL; Inferior; Defective
SWELL; First-rate; Grand
SWELLISH; Stylish; Fine
UNABLE; Impotent; Helpless
UNBONNY; Ugly, unhealthy
UNCAPABLE; Incapable; Unable
UNCONSEQUENTIAL; Inconsequential; Unimportant
UNDEBASED; Not reduced in quality or value; Not adulterated
UNDEPRAVED; Not corrupt
UNDESERVING; Not worthy of praise; Not meritorious
UNFLAWED; One who has no shortcomings
UNMARVELOUS; Not wonderful; Not of high quality
UNMOMENTOUS; Not significant; Unimportant
UNPARAGONED; Matchless; Not paralleled
UNREMARKABLE; Lacking distinction; Ordinary
UNSATISFACTORY; Inadequate; Disappointing
UNSTAINED; Unblemished; Pure
UNSUFFERABLE; Intolerable; Obnoxious
VIRTUOSO; Master; Expert in the technique of an art
WOODEN-HEADED; Blockhead; Stupid