



Exploring the indigenous structure of Vietnamese personality traits: A psycho-lexical approach

Nhu Thi Quynh Mai¹ and A. Timothy Church²

¹Counseling & Testing Center, University of Idaho, USA

²Washington State University, Pullman, USA

The goals of this study were to explore the structure of the Vietnamese personality lexicon and to relate emic Vietnamese personality dimensions to proposed etic (universal) personality models. A set of 2,129 person-descriptive terms were culled from a Vietnamese-English Dictionary, classified into the categories of a person-description taxonomy developed for the German language, and rated for their clarity, familiarity, and relevance for personality description. The classification and evaluation of the terms led to a reduced set of 668 trait terms, which were administered to 850 participants to collect self-ratings. After eliminating 140 participants who responded carelessly or omitted many items, the self-ratings of the remaining 710 participants were factor analyzed using principal components analyses with varimax rotations. One- to eight-factor solutions were examined, and correlated with marker scales for etic models of personality structure, including the Big One, the Big Two, the Big Three, the Big Five, the Big Six, and the Multi-Language Seven (ML7) models. The Vietnamese factor structure showed moderate to strong support for the cross-cultural replicability of the Big One, the Big Two, and the Big Three models. The Big Five, Big Six, and ML7 models were not well replicated. An eight-factor solution provided the most interpretable structure, with five of its factors corresponding well with dimensions of the Big Six model: Vietnamese Warmheartedness-Virtue with Agreeableness, Vietnamese Talented-Intellect with Intellect, Vietnamese Orderly-Industriousness with Conscientiousness, Vietnamese Courage with Emotional Stability (inversely), and Vietnamese Vivaciousness with Extraversion. The three remaining indigenous factors – Modesty, Straightforward-Genuineness, and Trustworthiness – showed modest to moderate relationships with Big Six Honesty-Humility. Gender differences on the Vietnamese dimensions were generally modest but provided initial validity evidence for the dimensions. Theoretical and applied implications, as well as strengths, limitations, and future research recommendations are discussed.

Keywords: psycho-lexical approach, indigenous structure, personality traits

“All aspects of human personality which are or have been of importance, interest, or utility have already become recorded in the substance of language.” (Cattell, 1943)

The natural language is a rich resource for researchers who seek to identify and understand a broad range of individual differences in physical features, role qualities, reputations, cognitive capacities, temperaments, attitudes, interests, and beliefs (John, Angleitner, & Ostendorf, 1988; De Raad, 2000). Many researchers have relied on the so-called psycho-lexical approach to exploit personality differences of importance as they are encoded in languages in many cultures (Goldberg, 1981). Drawing on the natural language of personality to detect patterns of covariation among personality traits, research has derived a set of factors or dimensions representing the structure or the organization of personality in a given language or culture. McCrae and Costa (1997) argued that if cultures shape personality traits, researchers should be able to detect different patterns of per-

sonality structure across languages and cultures due to differences in cultural practices such as religion, societal norms and values, and parenting styles. However, if personality attributes define variations of the same basic dimensions in each culture, then there must be a universal structure of personality reflecting humans’ universal ways of thinking, feeling, and acting.

It is important to investigate the structure of personality in different languages and cultures, in order to determine the extent to which personality dimensions are universal or culture-specific. In addition, because personality traits have been linked to important life outcomes such as physical and mental health, career choices, and psychological disorders (Ashton, 2007; Cooper, Detre, & Weiss, 1981; Friedman et al., 1995), it is also important to identify the salient personality traits in all cultures and to measure them in a culturally-relevant manner. The lexical approach provides an emic (culture-specific, indigenous) method of doing so, as opposed to the imposed-etic (universal) approach.

The emic aspect of the psycholexical approach serves two important purposes. It allows researchers (a) to investigate personality traits from an indigenous perspective without imposing influences from other cultures (Church &

Katigbak, 1988), and (b) to make meaningful comparisons of the taxonomy of personality traits across cultures.

The lexical approach is based on the premise that salient individual differences in personality are expressed in single words. Goldberg (1982) argued that “the more important is an individual difference in human transactions, the more languages will have a term for it” (p. 142). This premise, which emphasizes the relationship between phenotypic attributes and the natural language, can be traced back to the pioneering work of Allport and Odbert (1936), Cattell (1943), and Norman (1967). Allport and Odbert (1936) articulated the role of language in communicating personality traits: “Linguistic symbols have demonstrated utility; they have been tested through-out the ages for their power of representing stable facts of experience [...]. If traits exist at all it is natural and proper to name them” (p. 19).

The most prominent task for lexical researchers involves “cataloguing, ordering, and naming in a standard fashion the domain of individual differences” (John et al., 1988, p. 172) in order to detect a common language of personality description (De Raad et al., 2010). While researchers could rely on all parts of speech to describe personality characteristics, including nouns, verbs, adjectives, and adverbs (cf. De Raad & Barelds, 2008), they have most frequently used adjectives to represent personality traits (Allport & Odbert, 1936; Goldberg, 1981; Norman, 1967). Adjectives consist of both desirable and undesirable personality attributes that are the most “prototypical and central repositories” for describing individual differences (Saucier & Goldberg, 1996b, p. 30).

During the past 30 years, lexical researchers have constructed a number of taxonomies of personality in different languages and cultures, thus enabling comparisons and the determination of cross-culturally generalizable dimensions or factors. Structures with one, two, three, and up to seven or eight factors had been identified in studies that employed quantitative, psychometric procedures. The present study of the Vietnamese personality structure aims to contribute to recent efforts to identify culture-specific and cross-culturally replicable trait factors. The study is of particular interest because the lexical approach has rarely been applied in Asian languages. This study on Vietnamese personality traits is the first conducted in a language of the Vietic or Viet-Muong branch of the Austroasiatic language family. Vietnamese is spoken by more than 70 million people. Its vocabulary is influenced by Chinese and French.

The lexical approach also has limitations. Block (1995) argued that the natural language has limited ability to describe complex and dynamic aspects of human personality. Other criticisms include the “fuzzy meanings” of ambiguous and context-dependent personality-descriptive terms (Bromley, 1977), the lack in capturing situational variability in personality expression (Shoda & Mischel, 2000), and the use of lay people as judges in evaluating the relevance of terms (Block, 1995).

Psycho-lexical studies across languages and cultures

Following the lexical approach, a growing number of researchers have used dictionaries to obtain comprehensive lists of personality-descriptive terms in a variety of cultures and languages. The first studies were performed in Ger-

manic languages, including English (Goldberg, 1990), resulting in a five-factorial structure –the Big Five–, followed by Dutch (Brokken, 1978; De Raad, Hendriks, & Hofstee, 1992) and German (Angleitner, Ostendorf, & John 1990). The Big Five dimensions were confirmed in the latter two languages. The Big Five factors comprised Extraversion or Surgency (e.g., sociable versus shy), Agreeableness (e.g., kind versus. cruel), Conscientiousness (e.g., disciplined versus lazy), Emotional Stability (e.g., patient versus agitated), and Intellect or Culture (e.g., intellectual versus unimaginative).

The studies in Germanic languages were soon followed by lexical studies in other Indo-European languages such as Italian (Caprara & Perugini, 1994; Di Blas & Forzi, 1998), French (Boies, Lee, Ashton, Pascal, & Nicol, 2001), Polish (Szarota, 1996), Greek (Saucier, Georgiades, Tsaousis, & Goldberg, 2005), Spanish (Benet-Martinez & Waller, 1997), Romanian (Burtăverde & De Raad, 2019), Russian (Shmelyov & Pokhil’ko, 1993), Czech (Hřebíčková, 2007), Serbian (Smederevac, Mitrović, & Čolović, 2007), Bulgarian (Todorov, 2009), Croatian (Mlačić & Ostendorf, 2005), Albanian (Ademi Shala, De Raad, & Arënliu, 2020), Lithuanian (Livaniene & De Raad, 2017), Hindi (Singh, Misra, & De Raad, 2013), and Farsi (Farahani, De Raad, Farzad, & Fotoohie, 2016). In addition, a series of lexical studies took place in non-Indo-European languages including Hungarian (De Raad & Szirmák, 1994; Szirmák & De Raad, 1994), Turkish (Somer & Goldberg, 1999), Hebrew (Almagor, Tellegen, & Waller, 1995), Arabic (Zeinoun, Daouk-Oyry, Choueiri, & van de Vijver, 2018), Filipino (Church, Katigbak, & Reyes, 1998), Chinese (Zhou, Saucier, Gao, & Liu, 2009), Japanese (Aoki, 1971), Korean (Hahn, Lee, & Ashton, 1999), Swahili (Garrashi, De Raad, & Barelds, 2023), Maa and Supyire (Thalmayer, Saucier, Ole-kotikash, & Payne, 2020), Khoekhoe (Thalmayer et al., 2021), and Bantu languages in South Africa (Nel et al., 2012).

Findings: Big Five and alternatives

While many of the referenced lexical studies confirmed the Big Five structure or close versions of the Big Five, alternative structures with fewer or more dimensions than the Big Five have also been reported. Musek (2007), for example, argued in favor of the Big One, the single unrotated factor that has been labeled Evaluation (e.g., socially desirable versus undesirable characteristics) (cf. Hofstee, 2003).

When two factors are extracted, those factors tend to describe agentic and communal clusters of traits (Bakan, 1966), or orientations termed as “getting ahead” and “getting along” by Wolfe, Lennox, and Cutler (1986), or the Big Two, referred to as Dynamic and Social Propriety/Socialization (or Social Self-regulation) by Saucier (2009) and Saucier et al. (2014), and as Dynamism and Affiliation by De Raad et al. (2018). Saucier (2009) argued that the one- and two-factor structures are the better candidates for a “strong universal” status because of their greater invariance across lexical studies (p. 1609).

For Italian, Di Blas and Forzi (1998) concluded that a Big Three, with Extraversion, Agreeableness, and Conscientiousness, formed the most appropriate summary of the trait domain. Some researchers believe that such a three-

dimensional solution is the structure with the largest number of dimensions generalizable across most cultures. De Raad, Barelds, Timmerman, de Roover, Mlačić, and Church (2014) analyzed a joint (i.e., combined cultures) matrix (total $N = 7,104$) for 1,993 personality-descriptive terms. Both principal components and simultaneous components analyses were conducted. The authors used the data from 11 lexical studies, conducted in English, Dutch, German, Italian, Hungarian, Polish, Czech, Filipino, Greek, and Croatian. Support was found for three dimensions across cultures, labeled Dynamism (a broader version of Extraversion), Affiliation (a broader version of Agreeableness), and Order (a broader version of Conscientiousness).

Other researchers have proposed solutions with more than five factors. A six-factor model had been proposed by Ashton et al. (2004), which includes dimensions resembling the Big-Five, plus an Honesty-Humility dimension. The six-factor structure was observed in data from Dutch (De Raad et al., 1992), French (Boies et al., 2001), Hungarian (Szirmák & De Raad, 1994), Roman Italian (Caprara & Perugini, 1994), Triestian Italian (De Blas & Forzi, 1999), and Korean (Hahn et al., 1999).

Using a broader sampling of terms, including personality traits, states, and general evaluations, a seven-factor solution was found in English (Tellegen & Waller, 1987), Spanish (Benet-Martinez & Waller, 1997), and Hebrew (Almagor et al., 1995). These researchers identified dimensions resembling the Big Five plus the two dimensions Positive Valence (e.g., remarkable and extraordinary) and Negative Valence (e.g., evil and cruel).

Using a comprehensive and unrestricted list of personality trait descriptors, including adjectives, nouns, verbs, adverbs, and expressions, De Raad and Barelds (2008) concluded to a structure with eight dimensions, of which five represented the Big Five. The additional three factors were Virtue, Competence, and Hedonism, with Virtue and Competence suggested to represent generic versions of Communion and Agency (Bakan, 1966; Digman, 1997). Hedonism seemed related to Sensation Seeking (e.g., Zuckerman, 2002).

Trait-structural issues in need of attention

Although the Big-Five model has frequently been treated as “the most salient candidate model” in the past (Saucier, 2002, p. 28), researchers may continue to explore “finer grained factors that have commonality across languages” (Saucier & Ostendorf, 1999, p. 623) beyond such a “magic number” and recognize that “there is much important variance in human behavior” (Paunonen & Jackson, 2000, p. 832). In studying personality structure, it is necessary to avoid “circular reasoning, where factors are interpreted according to expectations” (De Raad, et al., 2010, p. 162). Therefore, instead of asking the question: “What is the correct number of factors?” (Saucier, 1997, p. 1310), investigators may first need to agree on a standard method of selecting personality-descriptive variables before making cross-cultural comparisons of personality factors. As long as there is no clear consensus as to which attributes ought to be

counted as personality variables, Saucier (1997) suggested to sample broadly from attributes of diverse types and carry out a reliable classification of the descriptors into variable categories, thus enabling some control over the effects of variable selection (p. 1297).

Several lexical studies, including those in Hungarian, Triestian Italian, and Croatian have classified descriptive items according to word types (i.e., adjectives, type nouns, attribute nouns, and verbs). Researchers differ in what they consider personality-relevant, working with (a) terms based on a restrictive sampling (stable traits), or (b) terms from a less restrictive sampling (e.g., stable traits, temporary states, evaluations, and social and physical attributes). Imperio, Church, Katigbak, and Reyes (2008) argued that social and physical attributes contribute to a more “comprehensive taxonomy of person perception or person description categories in various languages and cultures” (p. 318). Thus, in order to control the effects of variable selection, researchers could separately administer each set of personality-descriptive terms to obtain self- and peer-ratings. It may also be useful to use principal components analyses with both original and ipsatized data. Furthermore, it may be helpful to first report findings in a hierarchical manner, starting with a single, unrotated factor and continuing until at least seven factors. A further, yet more complex, step could be to also combine pairs of factors to locate terms within a circumplex structure.

Another area of improvement in future research is to create a systematic approach that will better identify universal personality clusters across languages. This would enable researchers to categorize unique factors according to their languages of origin, geographical proximity, or cultural relatedness (Saucier et al., 2005). Moreover, in order to determine the generalizability of personality structures derived using the lexical approach, future researchers should study the stability of these dimensions from a developmental perspective. Moving beyond samples of college students is a first important step toward including more diverse samples, which will enable better generalizations about lexical personality structures. Broader samples would also enable researchers to better identify and appreciate meaningful nuances between schooled and less schooled populations in a particular culture (Greenfield, 1997). Lastly, researchers may need to expand lexical studies of indigenous personality structure to countries in other continents such as Asia, South America, and Africa.

The present aims

The main goal is to explore the structure of the Vietnamese personality lexicon. This was done in two studies. During the first study, a personality descriptive lexicon was extracted from a dictionary and reduced to an appropriate list of descriptors to be used to collect ratings. During the second study, ratings were collected and the data were factor-analyzed using Principal Components Analysis. The resulting factors were related to the Big Five and other models, including the Big One, Big Two, Big Three, Big Six or HEXACO, and the Multi-Language Seven (ML7).

Table 1. Frequencies and percentages of Vietnamese terms classified according to Angleitner's system

Category	Frequency	Percentage
1. Dispositions		
a. Temperament and character traits	1,207	56.69
b. Abilities, talents, or their absence	194	9.11
2. Temporary conditions		
a. Experiential states	24	1.13
b. Physical and bodily states	5	.23
c. Behavioral states: Observable	75	3.52
3. Social and reputational aspects		
a. Roles and relationships	52	2.44
b. Social effects	67	3.15
c. Pure evaluation	170	7.98
d. Attitudes & worldviews	33	1.55
4. Overt characteristics		
a. Anatomy	184	8.64
b. Appearance	111	5.21
5. Terms of limited utility		
a. Context-specific or technical	0	.00
b. Metaphorical, vague, or outmoded	7	.33
Total of terms	2,129	100

Study one: The construction of a Vietnamese trait list

METHOD AND RESULTS

The construction procedure involved four steps, comprising (1) selection of trait terms, (2) categorization of those terms, (3) ratings of the terms on relevance, familiarity, and frequency of use, and (4) the construction of the final Vietnamese trait inventory.

Step 1: Selection of trait terms

From a modern and comprehensive Vietnamese-English dictionary, counting 55,000 entries (Ed. Trịnh Tất Đạt, 2006), all person-relevant adjectives were selected that enable to "distinguish the behavior of one human being from that of one another" (Allport & Odbert, 1936, p. 24). The German and Dutch approaches were followed in guiding the selection of personality-relevant terms. An advantage of using a Vietnamese-English dictionary was that it was easier to obtain English translations for each Vietnamese term. To determine the relevance of an adjective for person description, we made of two heuristic criterion sentences. Person-descriptive adjectives should fit into either one of the following sentences: (1) "Lan is (adjective) by nature" and (2) "What kind of person is Lan?" When in doubt, the word was retained. Using this procedure, an initial set of 2,129 personality-relevant adjectives was compiled.

Step 2: Categorization of terms

Using the methodology developed by the German taxonomists (see Angleitner et al., 1990), the Vietnamese person-descriptive terms were categorized by the first author into five superordinate categories and 13 subordinate categories,

as shown in Table 1. Adjectives that were classified as dispositions (i.e., temperament and character, plus abilities and talents) were considered the best exemplars of stable traits. In combination with ratings in Step 3, these classifications were used to select the best personality-relevant adjectives for Study two.

Step 3: Ratings of relevance, familiarity and frequency

The purpose of this step was to exclude unclear, unfamiliar, irrelevant, and infrequently used terms from further consideration. The initial list of 2,129 terms was independently rated by seven native speakers of Vietnamese to judge the terms on the selected dimensions. The judges were four undergraduate students, one graduate student, one postdoctoral researcher, and one professor; all had grown up and completed secondary education in Vietnam and they were from diverse regions of the country.

The judges were given approximately three weeks to complete the ratings of clarity of meaning (1 = unclear; 2 = moderately clear; 3 = very clear), familiarity of usage (1 = unfamiliar; 2 = moderately familiar; 3 = very familiar), and relevance for personality (1 = irrelevant; 2 = moderately relevant; 3 = very relevant). Rather than providing the judges with a definition of "personality", the judges were asked to use their own conception. The average inter-rater reliabilities (see Tinsley & Weiss, 1975) were .84 for clarity, .81 for personality relevance, and .76 for familiarity.

Step 4: Construction of the Vietnamese trait inventory

To select the final set of trait terms, the mean clarity, familiarity, and personality relevance ratings of the judges in Step 3 were used, in combination with the classification of the person-descriptive terms as presented in Table 1.

Specifically, for the three criteria the same cut-off mean ratings of ≥ 2.5 were used, resulting in a set 533 most useful personality-descriptive terms. Special weight was given to terms that had been classified as dispositions. For these, the cut-off criterion for personality relevance was relaxed to a mean ≥ 2.25 , resulting in another 135 to be included as most useful. The final set thus comprised 668 trait terms, which was the set that was administered to participants in Vietnam to obtain ratings.

Study two: Structuring the Vietnamese trait lexicon

METHOD

Besides using the list of 668 Vietnamese trait terms to collect ratings needed to structure the domain, sets of markers were identified in this list of 668 to function as scales to measure The Big One, the Big Two, the Big Three, the Big Five, the Big Six, and the Multilanguage Seven. The selections of terms for these markerscales were all guided by Vietnamese translations of terms defining the models of origin.

Participants

A total of 850 Vietnamese individuals participated in the primary sample, providing self-ratings on Vietnamese trait adjectives. The participants were recruited by contacting the

Table 2. Distribution of participants' provinces

	province	frequency	percentage
a	North	20	2.8
b	North Central	225	31.7
c	South Central	366	51.5
d	Central Highlands	58	8.2
e	South	28	3.9
f	Mekong Delta	13	1.8

Duy Tân University, the Đà Nẵng Architecture University, the University of Natural Resources and Environment, and the Hồ Chí Minh City University of Social Sciences and Humanities. Due to different academic cycles at each of these universities, the selected trait terms could not be administered to students at the University of Social Sciences and Humanities in Hồ Chí Minh City. To diversify the sample, religious leaders at a church in Đà Nẵng were contacted and they arranged a meeting to recruit young adults at their church.

During an initial screening of the data, 140 participants were eliminated from further analyses due to careless or random responding, leaving a final sample of 710 participants. Of these, 691 were students enrolled at three different universities/colleges (97%) and 19 were community members (3%) at a Christian-based church in Đà Nẵng. Eighteen out of 19 community members were college students and one member was an instructor at a technical college. In this final sample, there was a balance of males ($N = 334$; 47%) and females ($N = 376$; 53%). Ages ranged from 18 to 29 ($M = 19.83$; $SD = 1.37$).

Students from the Duy Tân University made up the largest group of participants ($N = 524$), followed by those from Đà Nẵng Architecture University ($N = 97$) and the University of Natural Resources & Environment ($N = 70$). Participants' years in college were as follows: first year ($N = 269$), second year ($N = 364$), third year ($N = 66$), fourth year ($N = 7$), fifth year ($N = 2$), sixth year ($N = 1$), and seventh year ($N = 1$). The largest numbers of students were majoring in Business ($N = 296$), Engineering ($N = 158$), or Informational Technology ($N = 65$), but a variety of other majors were also represented, including Marketing, Accounting, Traveling, Banking, Hotel Management, and Foreign Language Education ($N = 191$).

Participants reported provinces of origin representing diverse geographical regions of Vietnam. The regions of origin were grouped into five regional categories (Table 2)

Instruments

The Vietnamese list of trait terms

The 668 Vietnamese trait terms identified in Study 1 were put in two versions of random order in a booklet, the one version being the reverse of the other. The instrument included written instructions in Vietnamese.

Marker scales

Marker scales were used to determine whether the indigenous Vietnamese dimensions align with previously identified dimensions (e.g., Big One, Big Two, etc.). From the Vietnamese list of trait terms, those that represent direct translations of the English adjectives that had previously been identified as markers of the Big One, Big Two, Big Three, Big Five, Big Six, and Multi-Language Seven (ML7), were selected by the author. For translations, use was made of the English-Vietnamese Dictionary (Eds. Tô Văn Sơn, Nguyễn Văn Liên, Phạm Vũ Lữ, 1996) and an online Vietnamese-English/English-Vietnamese website (www.vdict.com). The marker items associated with each model are shown in Appendix A.

Big One and Big Two marker scales. Saucier et al. (2014) proposed 33 items to assess the Big One, and for the Big Two, they suggested 30 items to represent the Social Self-Regulation component and 29 items defining the Dynamism dimension. For the present study, good Vietnamese translations were found for 26 of the 33 Big One markers, 27 of the 30 Big Two Social Self-Regulation markers, and 23 of the 29 Big Two Dynamism markers. The alpha reliabilities for the marker scales in the present sample were as follows: .80 for the Big One, .82 for Social Self-Regulation, and .81 for Dynamism.

Big Three marker scales. For the Big Three, use was made of the descriptions of the Big Three Dynamism, Affiliation, and Order dimensions that were developed by De Raad et al. (2014). Good Vietnamese translations were found for 35 Dynamism terms, 36 Affiliation terms, and 25 Order terms. The alpha reliabilities in the present sample were as follows: .81 for Dynamism, .84 for Affiliation, and .80 for Order.

Big Five marker scales. Markers for the Big Five dimensions were taken from Goldberg's (1990) 100 Revised Synonym Clusters. Each component has about 25 terms distributed on both negative and positive poles of the dimensions. For the present study, good Vietnamese translations were found for 28 Surgency/Extraversion terms, 44 Agreeableness terms, 24 Conscientiousness terms, 8 Emotional Stability terms, and 10 Intellect terms. The alpha reliabilities in the present sample were as follows: Surgency/Extraversion, .78; Agreeableness, .84; Conscientiousness, .77; Emotional Stability, .50; and Intellect, .71.

Big Six marker scales. Markers for the Big Six model were drawn from De Raad et al.'s (2010) 180 markers. These marker items were systematically selected from trait adjectives used in 14 lexical studies, with each factor being represented by 30 marker items (15 items per pole). For the present study, good Vietnamese translations were found for 19 Extraversion terms, 24 Agreeableness terms, 20 Conscientiousness terms, 16 Emotional Stability terms, 18 Intellect terms, and 25 Honesty-Humility terms. The alpha reliabilities in the present sample were as follows: Extraversion, .77; Agreeableness, .76; Conscientiousness, .83; Emotional Stability, .71; Intellect, .78; and Honesty-Humility, .81.

Multilanguage Seven marker scales. For the Multi-Language Seven (ML7) model, use was made of a list of 60

marker adjectives identified by Saucier (2003a). Good Vietnamese translations were found for 7 Gregariousness terms, 7 Self-assurance terms, 9 Conscientiousness terms, 7 Originality terms, 4 Even Temper terms, 5 Concern for Others terms, and 7 Negative Valence terms. The alpha reliabilities in the present sample were as follows: Gregariousness, .55; Self-Assurance, .67; Conscientiousness, .53; Originality, .58; Even Temper, .62; Concerns for Others, .39; and Negative Valence, .54.

Procedure

All 710 participants provided answers to questions about gender, age, vocation, education level, college/university, year in college, major, province, and ethnicity.

The Vietnamese list of 668 trait terms (that included the marker items) was administered in one or the other random form to participants in auditorium or small classroom settings. Participants were given approximately 90 minutes to complete the self-rating task. Participants were instructed to describe themselves as accurately as possible on each of the 668 personality-relevant terms using an eight-point rating scale (1 = extremely inaccurate; 2 = very inaccurate; 3 = moderately inaccurate; 4 = a little inaccurate; 5 = a little accurate; 6 = moderately accurate; 7 = very accurate; 8 = extremely accurate). They were also asked to mark an 'X' for any terms whose meanings were unclear to them. The 'X' response would have been treated as a missing value. However, none of the participants used the 'X' response, presumably because the terms had been selected to be reasonably familiar to participants.

Statistical analyses

Principal Components Analyses were applied followed by varimax rotation, initially using both raw data and ipsatized data. Ipsatization was applied (standardization per person) to control for the potential influences of response biases. To obtain ipsatized data, we subtracted each participant's mean rating across all items and divided by their standard deviation across all items. The use of this procedure is widely used in lexical studies as it generally produces more interpretable factors and allows direct and more meaningful comparisons with the results of other lexical studies that used ipsatized data. Indeed, the initial factor solutions based on raw (non-ipsatized) data were less interpretable and are not discussed further.

The first unrotated principal component was first analysed, and next solutions with two, three, four, five, six, seven, and eight factors were analysed. The factors from the successive factor solutions were correlated to create a hierarchical representation with a first unrotated factor at the top and followed in succession by rotated factors in solutions of two, three, four, and so forth, up to eight factors (cf. Goldberg, 2006). In this hierarchy, the first factor, at the top level, represents the most global or general dimension, while the factors at the bottom level characterize more specific or refined personality dimensions. Several authors have advocated deriving such a trait hierarchy as it provides a meaningful and informative way to compare factor solutions at different levels of generality across lexical studies (Goldberg & Somer, 2000; Szirmák & De Raad, 1994).

To determine how well the structures with one-factor, two-factors, and so forth, resembled the Big One, Big Two, etc., Pearson correlations were computed between the factor scores and the relevant marker scales. For example, factor scores for the Vietnamese five-factor solution were correlated with the Big Five marker scales. Finally, MANOVA's were used to compare men and women on selected factors.

RESULTS

Preliminary Principal Components Analyses

It was apparent from the initial Principal Components Analyses of the total set of 668 trait terms that factors in some solutions could be interpreted as a Negative Valence dimension. Indeed, a clear Negative Valence factor first emerged as the fourth dimension in the five-factor solution and it remained stable across the subsequent six-, seven-, and eight-factor solutions. Inspection of the content of this recurring Negative Valence factor revealed a clear pattern of terms describing very socially undesirable traits with low item means at one pole (e.g., vile [bỉ ôi], ruffianly [côn đồ], wily [lưu manh], and malicious [nham hiểm] versus socially desirable characteristics (e.g., affectionate [tình cảm], candid [ngay thẳng], self-reliant [tự lực], responsible [trách nhiệm], and forgiving [khoan dung]). Many of these terms had been classified as Pure Evaluations in the classification of the terms into Angleitner et al.'s (1990) system but were retained because of the judges' ratings.

The Principal Components Analyses were repeated after deleting 81 terms that had been classified as Pure Evaluations and that had very low means in the self-report data. To reduce the chances for purely evaluative factors, further analyses were only reported using the reduced data set with 587 terms.

Hierarchy of Vietnamese factors

In a principal components analysis of the retained 587 terms, the first twelve eigenvalues were 49.37, 22.42, 16.40, 11.78, 10.00, 8.89, 7.91, 6.59, 6.25, 5.28, 5.53, and 4.99. The scree plot thus showed a sharp break after the third factor, but it was not very definitive on the number of meaningful factors beyond three. Therefore, the criteria for extracting factors were provided by theory (i.e., the hypothesized factor structures based on previous lexical studies), interpretability of factors, their stability across solutions with successive numbers of factors. Given the interest in a replicability in the Vietnamese sample of the Big One (General Evaluation), Big Two, Big Three, Big Five, Big Six, and ML7 models, it was appropriate to pay special attention to solutions with corresponding numbers of factors.

The hierarchy of factor-solutions with one up to eight factors is given in Figure 1. Factors are indicated by codes with the first part representing the factor solution and the second the order of emergence of a factor in a given solution. For example, the code 6/3 indicates the third factor in the six-factor solution. Correlations between factors from adjacent levels are presented if they were .45 or higher.

One-factor solution. The first unrotated component was defined at the positive and negative poles, respectively, by

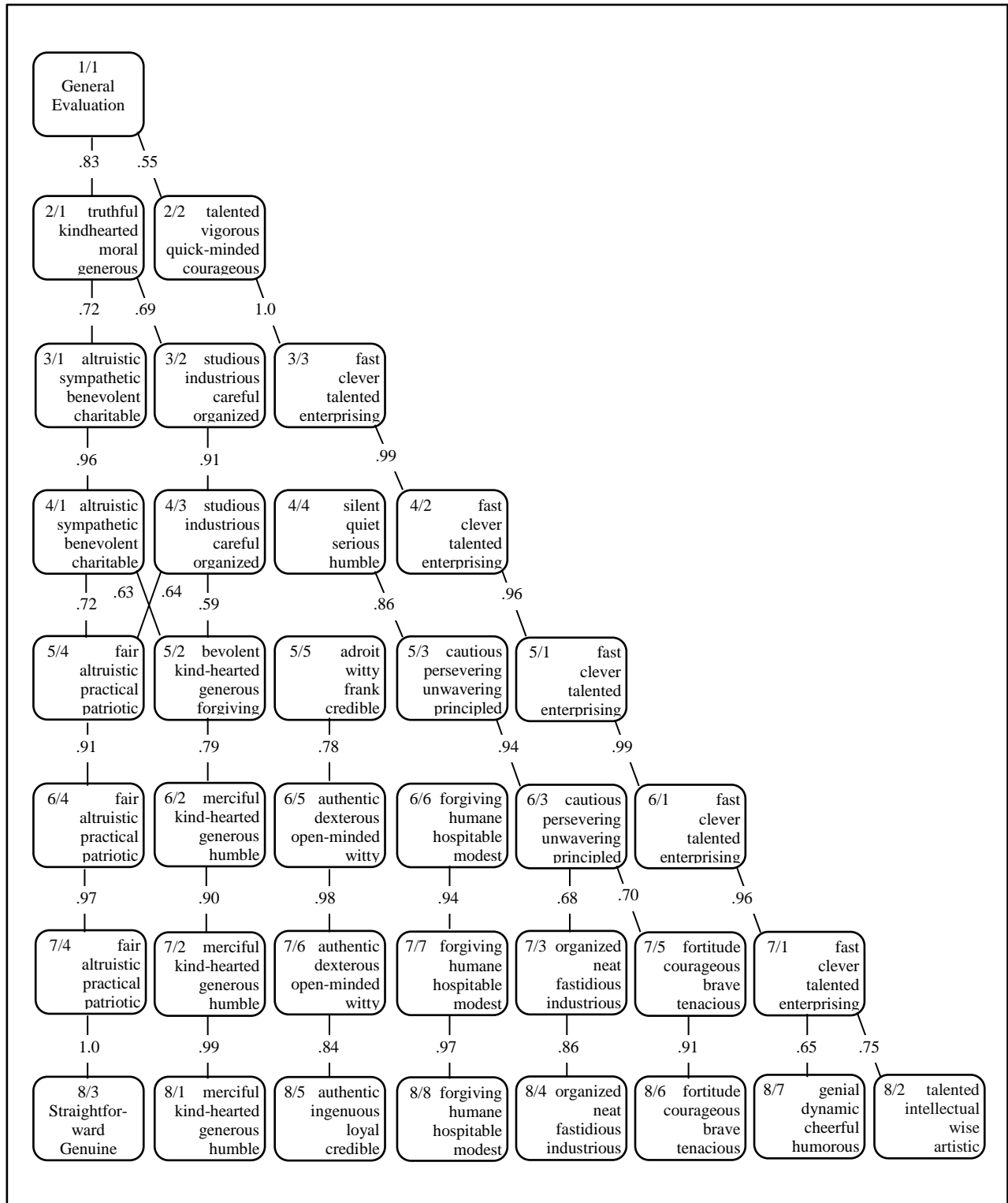


Figure 1. Hierarchy of factor-solutions

terms referring to socially desirable and undesirable traits. Therefore, it was labeled General Evaluation. High-loading items (generally greater than .40 in absolute value) on the positive pole included *industrious* (cần mẫn), *determined* (quyết tâm), *benevolent* (hiền đức), *trustworthy* (trung tín), *ethical* (công minh), *serious* (nghiêm chỉnh), *moral* (đạo đức), *educated* (học thức), and *humble* (khiêm nhường). High-loading terms on the negative pole were *impetuous* (bộp chộp), *dependent* (ỷ lại), *passive* (thụ động), *ill-disposed* (xấu bụng), *overbearing* (hống hách), *anxious* (lo

lắng), *callous* (nhẫn tâm), *conniving* (thâm hiểm), *stupid* (ngớ ngẩn), and *greedy* (tham lam). The contents of the factor poles are rather heterogeneous except for their shared evaluative meaning. The contents of this factor suggest the cross-cultural replication in Vietnamese of a General Evaluation dimension (cf. Boies et al., 2001; Di Blas & Forzi, 1999; Saucier, 2003b).

Two-factor solution. The first component of the two-factor solution (2/1) represents Kind-heartedness and Truthfulness (Phúc hậu-Thành thật). High-loading terms on the

Table 3. Correlations between the Vietnamese One-, Two- and Three-factor solutions and the marker scales of the Big One, Big Two, and Big Three

Vietnamese factor solutions	marker-scales		
One factor solution	Big One		
(1/1) General evaluation	.90**		
Two-factor solution	Self-Regulation	Dynamism	
(2/1) Kindhearted-Truthfulness	.86**	.00	
(2/2) Talented-Vivaciousness	.28**	.89**	
Three-factor solution	Affiliation	Dynamism	Order
(3/1) Altruistic-Honesty	.65**	.00	.39**
(3/2) Diligence	.54**	-.05	.61**
(3/3) Talented-Vivaciousness	.10**	.86**	.50**

Note: The highest correlation for each component is highlighted in bold. **p < .001 (two tailed).

positive pole were, for example, *kind-hearted* (phúc hậu), *moral* (đạo đức), *altruistic* (vị tha), *generous* (rộng lòng), *gentle* (nhỏ nhẹ), *truthful* (thành thật), *devoted* (tận tụy), and *faithful* (trung thành). On the negative pole, example high-loading terms include *overbearing* (hồng hách), *arrogant* (cao ngạo), *vulgar* (thô bỉ), *selfish* (ích kỷ), *aggressive* (dữ tợn), and *rude* (thô lỗ). The content of this factor seems to closely resemble the Big Two Social Self-regulation factor. The second factor (2/2) describes being Talented and Vivacious (Tài năng-Hoạt bát), with high-loading terms on the positive pole as *quick-minded* (lạnh trí), *talented* (tài năng), *vigorous* (mạnh mẽ), *courageous* (dũng cảm), *creative* (sáng tạo), *intellectual* (trí thức), and *strong-willed* (kiên chí), and on the negative pole *timid* (nhút nhát), *sorrowful* (u sầu), *stupid* (ngốc nghếch), *fearful* (sợ hãi), *dependent* (phụ thuộc), and *conservative* (bảo thủ). This factor appeared to closely resemble Big Two Dynamism. As evident in Figure 1, this factor remained largely the same across all subsequent factor solutions until it divided into two distinct factors in the eight-factor solution.

Three-factor solution. In the three-factor solution, the Kind-heartedness-Truthfulness factor (2/1) split into a factor (3/1) covering Altruism-Honesty (Vị tha-Thành thật) and a factor (3/2) covering Diligence (Chăm chỉ). High-loading terms on the positive pole of the Altruistic-Honesty factor were *altruistic* (vị tha), *benevolent* (nhân đức), *sympathetic* (thông cảm), *generous* (rộng lòng), *charitable* (thảo bụng), *fair* (sòng phẳng), and *candid* (ngay thẳng), and the negative pole was defined by such terms as *terrible* (tồi tệ), *ungrateful* (bội ơn), *conniving* (thâm hiểm), *brazen* (trơ trẽn), *dishonest* (gian trá), and *manipulative* (thủ đoạn). This factor appears to resemble Big Three Affiliation or a blend of Agreeableness and Honesty-Humility.

High-loading terms on the positive pole of the Diligence factor were *industrious* (cần mẫn), *hard-working* (siêng năng), *studious* (siêng học), *careful* (cẩn thận), *organized* (ngăn nắp), and *well-disposed* (tốt nết). Terms defining the negative pole were *superficial* (hời hợt), *insolent* (ngỗ nghịch), *competitive* (háo thắng), *suspicious* (đa nghi), *stubborn* (ương bướng), and *refractory* (lì lợm). In Big Five terms, this factor appears to blend primarily Conscientiousness content with some Agreeableness content.

Four-factor solution. The four-factor solution introduced a new factor (4/4), covering traits describing Seriousness-Modesty (Nghiêm trang-Giản dị), with high-loading terms on the positive pole such as *silent* (ít nói), *quiet* (trầm lặng), *serious* (nghiêm túc), *contemplative* (trầm tư), *ordinary* and *simple* (bình dị), and *plain* (đơn sơ), and on the negative pole terms such as *talkative* (hay nói), *improvident* (hoang phí), *fashionable* (ăn diện), *boasting* (khoe khoang), and *impetuous* (bộp chộp).

Five-factor solution. From the four-factor solution to the five-solution, the contents of the factors (4/1) and (4/3) seemed to be re-distributed across the factors (5/4) and (5/2). Factor (5/4) covered traits related to Straight-forwardness and being Genuine (Thẳng tính-Thực tình), with high positive loading terms such as *fair* (sòng phẳng), *altruistic* (vị tha), *forthright* (ngay thẳng), *trustworthy* (uy tín), *moderate* (chừng mực), *practical* (thực tế), *curious* (tò mò), and *patriotic* (yêu nước), and negative loading terms such as *irresponsible* (vô trách nhiệm), *cold-hearted* (nhẫn tâm), *hypocritical* (đạo đức giả), *lack of self-awareness* (vô ý thức), *ungrateful* (vô ơn), and *contemptuous* (khinh người). Because the terms defining the negative pole were quite negative, the factor may also express Negative Valence.

The (5/2) factor describes Amicability (Hiền hòa), defined by traits such as *kind-hearted* (tốt bụng), *benevolent* (nhân đức), *generous* (rộng lòng), *forgiving* (khoan dung), *complaisant* (dễ tính), and *sincere* (thành tâm), apparently resembling Big Five Agreeableness.

Factor (5/3) describes Persistence (Kiên trì), defined by terms such as *persevering* (bền chí), *unwavering* (vững lòng), *self-composed* (trầm tĩnh), *cautious* (cẩn trọng), *self-disciplined* (kỷ cương), *principled* (quy tắc), and *determined* (quyết tâm), thus showing resemblance to Big Five Conscientiousness.

Finally, a factor (5/5), here labeled Credibility (Đáng tin), was defined by terms such as *adroit* (đảm đang), *witty* (hóm hỉnh), *frank* (ngay thật), *ethical/authentic* (chân chính), *credible* (đáng tin), and *open-minded* (phóng khoáng), versus *superficial* (hời hợt), *dependent* (dựa dẫm), *dishonest* (giả dối), *egotistical* (tự đại), and *bureaucratic* (quan liêu).

Six-factor solution. In the six-factor solution, the factor

Table 4. Correlations between the Vietnamese Five-factor Solution and the Big Five Marker Scales

Vietnamese Dimensions	Big Five marker scales				
	Surgency.	Agreeableness.	Conscientiousness.	Emotional Stability	Intelligence
(5/1) Talented-Vivaciousness	.81**	.14**	.32**	.57**	.70**
(5/2) Amicability	.08*	.75**	.27**	.17**	.03
(5/3) Persistence	-.18**	.42**	.68**	.48**	.06
(5/4) Straightforward-Genuineness	.13**	.25**	.26**	.01	.14**
(5/5) Credibility	.09*	.20**	.13**	.06	-.08

Note: The highest correlation for each component is highlighted in bold. * $p < 0.005$, ** $p < 0.001$ (two tailed).

(6/2) describes traits related to Warm-hearted and Virtue (Hiền hậu-Đức hạnh), such as *good-natured* (hiền lành), *kind-hearted* (phúc hậu), *merciful* (từ bi), *generous* (rộng lòng), *yielding* (nhường nhịn), *moral* (đạo đức), *humble* (khiêm tốn), *virtuous* (đức hạnh), *organized* (ngăn nắp), *industrious* (cần mẫn), and *studious* (chăm học). The content appears to reflect primarily Big Five Agreeableness content and secondarily Conscientiousness content.

The factor (6/5), here called Open-mindedness (Phóng khoáng), was defined by such terms as *authentic* (chân chính), *dexterous* (đảm đang), *open-minded* (phóng khoáng), *compassionate* (đồng cảm), *witty* (hóm hỉnh), *easy-going* (dễ tính), *cheerful* (vui tươi), *outspoken* (trung trực), and *frank* (ngay thật). This factor seems to blend some Honesty-humility content (e.g., *authentic*, *frank*) with some Extraversion (e.g., *witty*, *cheerful*, *outspoken*) content.

The factor (6/6), called Forgiving-Modesty (Khoan dung-Giản dị), was defined by such terms as *forgiving* (khoan dung), *altruistic* (bác ái), *humane* (nhân hậu), *hospitable* (hiếu khách), *modest* (giản dị), *earnest* (chân thành), and *just* (công bằng). It seems in part related to the Big Six Honesty-Humility factor.

Seven-factor solution. In the seven-factor solution, the factors (7/3) and (7/5) are splits off from the factor (6/3), representing Persistence (see also factor (5/3). Factor (7/3) describes Orderly-Industriousness, defined by such terms as *organized* (ngăn nắp), *neat* (gọn gàng), *fastidious* (kỹ tính), *industrious* (cần mẫn), *thoughtful* (chú đáo), and *meticulous* (tỉ mỉ). The factor (7/5), labeled Courage, was defined by such terms as *courageous* (can đảm), *fortitude* (anh dũng), *brave* (dũng cảm), *tenacious* (kiên cường), *strong-willed* (chí khí), *venturous* (mạo hiểm), and *daring* (gan dạ).

Eight-factor solution. In the eight-factor solution, the factors (8/2) and (8/7) form splits off from the Talented and Vivaciousness factor, that emerged as factor (2/2) in the two-factor solution. Factor (8/2), labeled Talented-Intellect (Tài năng-Thông minh), was defined by such terms as *talented* (tài năng), *bright* (sáng trí), *knowledgeable* (am hiểu), *wise* (khôn ngoan), *intellectual* (trí thức), *artistic* (tài hoa), and *savvy* (khôn khéo). The factor now resembles Big Five Intellect. The factor (8/7), here called Vivaciousness (Hoạt bát), resembles Big Five Extraversion, as expressed in such terms as *genial* (vui tính), *dynamic* (năng động), *cheerful* (vui vẻ), *humorous* (hài hước), *life-loving* (yêu đời), *care-free* (vô tư), and *sociable* (hòa đồng). The other factors of the eight-solution remained virtually the same as in the seven-solution.

The eight-factor solution showed a clear and distinct pattern of trait-meanings, with reasonably well interpretable factors. This solution is given in Appendix B, with items loading at least |.30| on one of the factors.

Relating emic and imposed-etic models of personality structure

In this section, the relationships between the indigenous factor-solutions and the etic models are investigated, making use of the marker-scales given in Appendix A.

Correlations between the solutions with one up to three factors and the relevant markerscales are given in Table 3. The correlation of .90 between the Vietnamese first unrotated factor and the Big One marker scale clearly indicates support of the Big One in the Vietnamese data set. The Vietnamese two-factor solution showed a fairly good one-to-one correspondence with the Big Two dimensions identified previously (Saucier et al., 2014) as Self-regulation and Dynamism. The third factor of the Vietnamese three-factor solution corresponded rather well to Big Three Dynamism. There was moderate convergence between the Vietnamese Altruism-Honesty factor and Big Three Affiliation, and between the Vietnamese Diligence factor and Big Three Order. This possibly reflects, in part, the fact that the Vietnamese Altruism-Honesty and Diligence factors—as do the Big Three Affiliation and Order dimensions—readily blend at a higher level in the trait hierarchy.

As shown in Table 4, of the Vietnamese five-factor solution, the Talented-Vivaciousness factor correlated with both the Big Five Surgency and Intellect scales, and the Big Five Emotional Stability scale showed overlap with both the Talented-Vivacious and Persistence factors. The Vietnamese Amicability factor showed fairly good one-to-one correspondence with Big Five Agreeableness, and the Vietnamese Persistence factor sensibly converged best with Big Five Conscientiousness. Neither the fourth or fifth Vietnamese factor in this solution correlated meaningfully with any of the Big Five marker scales.

Of the Vietnamese six-factor solution, the Talented-Vivaciousness factor was multidimensional in terms of the Big Six, but converged best with Extraversion and Intellect. Sensibly, the Vietnamese Warm-hearted and Persistence factors converged fairly well with Big Six Agreeableness and Conscientiousness, respectively. The Vietnamese Straightforward-Genuineness and Open-mindedness factors

Table 5. Correlations between the Vietnamese Six-factor solution and the Big Six marker scales

Vietnamese Dimension	Extraversion	Agreeableness	Conscientiousness.	Emotional Stability	Intellect	Honesty-Humility
(6/1) Talented-Vivaciousness	.80**	.12**	.17**	.64**	.76**	.04
(6/2) Warm-heartedness	-.12**	.73**	.52**	.08*	.17**	.34**
(6/3) Persistence	-.15**	.27**	.60**	.51**	.04	.32**
(6/4) Straightforward-Genuineness	-.07	.03	.20**	-.06	.30**	.27**
(6/5) Open-mindedness	.29**	.28**	.07	.10*	-.09*	.37**
(6/6) Modesty	.08	.25**	.01	.17**	-.08*	.62**

Note: The highest correlation for each component is highlighted in bold. * $p < 0.005$, ** $p < 0.001$ (two tailed).

showed weak relationships with the Big Six marker scales, while the new Modesty factor showed a moderate level of convergence with the Big Six Honesty-Humility factor (see Table 5).

Table 6 gives the correlations between the Vietnamese seven-factor solution and the ML7 marker scales. The correlations were generally relatively low, with only direct, yet moderate, correlations between the Vietnamese Warm-heartedness and Orderly-Industriousness factors and the ML7 Even Temper and Conscientiousness scales, respectively. This could in part be due to the small number of items available in the Vietnamese data for the ML7 marker scales and their marginal reliabilities.

Finally, since in the eight-factor solution, the Talented-Vivaciousness factor (7/1) appeared to be split into separate Talented-Intellect (8/2) and Vivaciousness (8/7) factors, it was of interest to see whether these two dimensions corresponded with Big Six Intellect and Extraversion, respectively. The pertaining correlations in Table 7, indeed, pointed to a fair convergence between the two sets of factors and scales. The Vietnamese Warm-hearted-Virtue and Order factors also corresponded reasonably well with Big Six Agreeableness and Conscientiousness, while the emic Courage and Modesty factors showed moderate correlations with Big Six Emotionality and Honesty-Humility dimensions, respectively. As in the factor solutions with fewer factors, the Vietnamese Straightforward- Genuineness and Trustworthiness factors had weak relationships with the etic marker scales.

In summary, the results support excellent replicability in the Vietnamese personality structure of the Big One (General Evaluation) and the Big Two (Social Self-regulation and Dynamism) dimensions, with some support as well for dimensions resembling the Big Three (Affiliation, Order, Dynamism). As more factors were extracted, the Vietnamese factors showed poorer convergence with the successive etic models, although in each case at least moderate convergence was observed for a subset of factors.

Gender differences

Multivariate analysis of variance (MANOVA) was used to test for mean differences between men and women on the Vietnamese personality factors. This was done at selected levels within the hierarchy of factors, rather than at all levels, which would have involved considerable redundancy. The three-factor solution was used, because of its apparent generalizability across cultures. The six-factor solution was

used, because it provided an intermediate level of differentiation and seemed superior to the five-factor solution. The eight-factor solution was used, because it provided the most refined set of dimensions, in particular, by differentiating Talented-Intellect and Vivaciousness dimensions. In each case, gender was the independent variable and the regression-method factor scores for a particular factor solution were the dependent variables. The results are summarized in Table 8.

Findings from the MANOVA indicated statistically significant differences between men and women for two of three dimensions in the three-factor solution: Altruism-Honesty (3/1) and Talented-Vivaciousness (3/3). In the six-factor solution, Vietnamese men and women differed significantly on all but the Warm-hearted-Virtue (6/2) factor. In the eight-factor solution, the Straightforward-Genuineness (8/3) and Trustworthiness (8/5) factors were the only ones that did not show statistically significant differences between men and women. Across these three factor solutions, men averaged higher than women on the Talented-Vivaciousness (3/3), Talented-Intellect (8/2), Persistence (6/3), and Courage (8/6) dimensions, while women averaged higher than men on Altruistic-Honesty (3/1), Straightforward-Genuineness (6/4), Openmindedness (6/5), Forgiving-Modesty (6/6), Orderly-Industriousness (8/4), Vivaciousness (8/7), and Modesty (8/8). These results support the value of distinguishing Talented-Intellect and Vivaciousness dimensions in the 8-factor solution, because the pattern of gender differences differed for the two factors. The partial η^2 values (i.e., effect sizes) indicate that most of the gender differences were modest in size, with the exception of the Courage factor. The authors could not find previous studies that addressed gender differences in Vietnamese personality.

The differences identified here seem to make sense and provide some tentative support for the validity or meaningfulness of the dimensions identified in this lexical study, even including the less interpretable Straightforward-Genuineness and Forgiving-Modesty factors.

DISCUSSION

This lexical study was the first to seek a comprehensive structure of indigenous Vietnamese personality using the lexical approach. The findings support the cross-cultural generalizability of personality structure at the most general levels with one-, two-, and three-factor solutions. The re-

Table 6. Correlations between the Vietnamese Seven-factor Solution and the Big Seven Marker Scales

Vietnamese Dimension	Extrav.	Self- Assur.	Consc.	Orig.	Even Tem.	Conce.	NV
(7/1) Talented-Vivaciousness	.54**	.50**	.08*	.57**	.11**	-.15**	.30**
(7/2) Warm-heartedness	-.13**	-.01	.25**	.21**	.53**	.32**	.37**
(7/3) Orderly-Industriousness	-.30**	.13**	.63**	.23**	.20**	.18**	.26**
(7/4) Straightforward-Genuineness	-.04	-.04	.25**	.20**	-.33**	.23**	.32**
(7/5) Courage	-.24**	.56**	.11**	.17**	.18**	-.08*	.18**
(7/6) Open-mindedness	.26**	.14**	.10*	-.11**	.09*	.35**	.04
(7/7) Forgiving-Modesty	.05	-.14**	.07	-.11**	-.04	.14**	.04

Note: Extrav. = Extraversion, Self-Assur. = Self-Assurance, Consc. = Conscientiousness, Orig. = Originality, Even Tem. = Even Temper, Conce. = Concerns for Others, NV = Negative Valence. The highest correlation for each component is highlighted in bold. * $p < 0.005$, ** $p < 0.001$ (two tailed).

sults did not straightforwardly support the cross-cultural replicability of the known five-, six-, and seven-factor models. The study revealed some potentially unique characteristics of the Vietnamese personality structure.

Summary of the results

The Big One was well replicated in the Vietnamese first unrotated factor, which was labeled General Evaluation; the factor clearly differentiated desirable from undesirable traits (cf. Hofstee, 2003; Musek, 2007).

The Vietnamese two-factor solution, whose dimensions were interpreted as Kindhearted-Truthfulness and Talented-Vivaciousness, supported the replicability of the Big Two model. The two factors replicate the distinction noted by other researchers between communal (Alpha) and agentic (Beta) traits (Digman, 1997; Bakan, 1966), and traits associated with social propriety, solidarity, and morality versus dynamism (Boies et al., 2001; De Raad, Barelds, Levert et al., 2010; Di blas & Forzi, 1999; Goldberg & Somer, 2000; Saucier et al., 2005). Overall, these results indicate that in most, if not all cultures, one of the most basic distinctions in person perception is between agentic and communal traits. This may suggest the possibility that this distinction had important consequences for survival and success during the evolution of the human species.

The correlations between the Vietnamese three-factor solution, which included the Altruistic-Honesty, Diligence, and Talented-Vivaciousness dimensions, and the relevant marker scales suggested moderately strong support for the cross-cultural replicability of the Big Three, although the three Vietnamese factors might align better with the Big Three after a targeted rotation. In particular, the Talented-Vivacious factor correlated highly with the Big Three Dynamism marker scale, whereas the other two dimensions exhibited less one-to-one convergence with dimensions of the Big Three. These findings are consistent with other lexical studies in which the first three factors – typically broad versions of Extraversion, Agreeableness, and Conscientiousness – were more replicable than their five-factor solutions (Peabody & De Raad, 2002; Peabody & Goldberg, 1989). For example, in the Italian Triestean study, Di Blas and Forzi (1999) found that their three-factor solution was the most robust factor solution in Italian. In the Turkish language, Somer and Goldberg (1999) also uncovered a broad version of the Big Three.

The persistent blending across factor solutions of Talented and Vivaciousness content is perhaps one of the more unique findings of this study. It is possible that the Vietnamese conceptualization of intelligence encompasses dynamism, proficiency, sociability, effective communication, and courage. Possibly, in the social-cultural context of Vietnam, possessing extraverted traits is crucial for an individual's survival or advancement in life.

Another possibly unique feature of the Vietnamese three-factor solution was the presence of Conscientiousness-related traits in all three broad factors. It may be that the Vietnamese consider conscientiousness, order, consistency, discipline, goal orientation, and determination to be an essential contributing factor in defining an individual's good character, competence, or success. In their Korean lexical study, Hahn et al. (1999) also found an intertwined connection between Conscientiousness and Intellect. From a cross-cultural standpoint, it is possible that this is a characteristic of certain Asian cultures, which emphasize the importance of a strong work ethic in people with access to higher education (Bond, 1979; Hahn et al. 1999).

The Vietnamese five-factor structure failed to support the replicability of the Big Five model in the Vietnamese language. The prototypical Big Five factors have been found in a number of lexical studies, especially in Germanic languages such as English, Dutch, and German (cf. Hofstee, Kiers, De Raad, Goldberg, & Ostendorf, 1997). However, there have also been a number of lexical studies that have not identified lexical based factors corresponding in a one-to-one manner with the Big Five (Saucier & Goldberg, 2001). Of the Vietnamese five-factor solution, only three dimensions, Talented-Vivaciousness, Amicability, and Persistence, had moderately strong relationships with their closest Big Five counterparts, Surgency/Extraversion, Agreeableness, and Conscientiousness, and only the Amicability factor showed a fairly good one-to-one relationship with its corresponding Big Five dimension.

A distinct dimension resembling Big Five Intellect did not emerge in the five-factor solution, but intellect content was clearly represented in the Vietnamese Talented-Vivaciousness factor. Similarly, although none of the Vietnamese factors could be interpreted as an Emotional Stability dimension, the negative pole of the Talented-Vivaciousness factor was dominated by terms related to aspects of emotional stability (e.g., insecurity, sentimentality, timidity, fragility, fearfulness, melancholy, and pessimism). Rather

Table 7. Correlations between the Vietnamese eight-factor solution and the big six marker scales

Vietnamese Dimension				<i>Emotional</i>		<i>Honesty-</i>
	<i>Extraversion</i>	<i>Agreeableness</i>	<i>Conscientiousness</i>	<i>Stability</i>	<i>Intellect</i>	<i>Humility</i>
(8/1) Warm-hearted-Virtue	-.06	.76**	.29**	.15***	.08	.44**
(8/2) Talented-Intellect	.44**	.12**	.24**	.49**	.78**	-.01
(8/3) Straightforward-Genuineness	-.05	.04	.09*	-.05	.24**	.34**
(8/4) Order	-.05	.27**	.75**	.18**	.09*	.23**
(8/5) Trustworthiness	.09*	.28**	.21**	.14**	.04	.32**
(8/6) Courage	.25**	.13**	.16**	.64**	.06	.22**
(8/7) Vivaciousness	.72**	.00	-.08*	.13**	.23**	.11**
(8/8) Modesty	-.04	.14**	.07	.10*	-.14**	.54**

Note: Extrav. = extraversion, agree. = agreeableness, consc. = conscientiousness, emoti. = emotionality, intell. = intellect, hones.-humil. = honesty-humility. The highest correlation for each component is highlighted in bold. * $p < 0.005$, ** $p < 0.001$ (two tailed).

than being a unique phenomenon, the absence of a separate and distinct Emotional Stability factor may be due to the tendency of emotional stability terms to be “cannibalized” into other factors (Peabody & De Raad, 2002).

Unlike some previous lexical studies in Asian languages, the Vietnamese five-factor solution provided, at best, only partial support for the Big Five dimensions. In contrast, the Filipino lexical studies discovered some “evidence for the cross-cultural universality of Big Five-like dimensions” (Church, Reyes, Katigbak, & Grimm, 1997, p. 508) and the Korean lexical study found “fairly close one-to-one correspondence to the Big Five factors” (Hahn et al., 1999, p. 17).

The Vietnamese six-factor solution (i.e., Talented-Vivaciousness, Warm-heartedness, Persistence, Straightforward-Genuineness, Open-mindedness, and Forgiving-Modesty) did not support the Big Six or HEXACO model in the Vietnamese culture, and thus did not support Ashton and Lee’s (2001, p. 24) characterization of the six-factor model as “the most parsimonious and comprehensive” representation of personality characteristics. It is noteworthy that elements of the Honesty-Humility dimension were evident at several levels of the Vietnamese personality hierarchy. In fact, the first component of the three-factor solution was labeled Altruistic-Honesty, which encompassed relevant traits such as altruism, compassion, sincerity, trustworthiness, fairness, forgiveness, integrity, truthfulness, and modesty (cf. De Raad, Barelds, Levert et al., 2010). In addition, in the Vietnamese six-factor solution, the Forgiving-Modesty component captured such characteristics as modesty, humility, simplicity, impartiality, and honesty. Other lexical studies have reported variants of an Honesty-Humility dimension, including the Integrity factor in the Hungarian structure (Szirmák & De Raad, 1994), the Trustworthiness factor in the Triestan Italian structure (Di Blas & Forzi, 1998), the Truthfulness factor in the Korean study (Hahn et al, 1999), and the Honesty factor in the French study (Boies et., 2001). Overall, the present results are consistent with other lexical studies, such as those in Filipino (Church et al., 1997) and Turkish (Goldberg & Somer, 2000), in which recognizable variants of the Big Six were discovered but not the entire structure.

The Vietnamese seven-factor solution (i.e., Talented-Vivaciousness, Warm-heartedness, Orderly-Industriousness,

Straightforward-Genuineness, Courage, Open-mindedness, and Modesty) did not support the replicability of the ML7 model. As noted previously, the more modest convergent correlations with the ML7 marker scales were likely due, in part, to the smaller number of items in these scales, and hence their lower reliabilities. Nonetheless, four of the seven Vietnamese factors showed sensible correlations of moderate size with ML7 marker scales (i.e., Talented-Vivaciousness with Extraversion and Intellect, Warm-heartedness with Agreeableness, Orderly-Industriousness with Conscientiousness, and Courage with Self-assurance). The absence of a definitive factor corresponding to ML7 Negative Valence was likely due to the removal of the Negative Valence terms after the preliminary analyses. Recall, however, that clear Negative Valence factors were identified in several factor solutions (not reported here) prior to removing 81 pure evaluation terms with low item means.

The Vietnamese eight-factor solution, comprised of Warm-heartedness-Virtue, Talented-Intellect, Straightforward-Genuineness, Orderly-Industriousness, Trustworthiness, Courage, Vivaciousness, and Modesty dimensions, provided a structure with rather coherent and distinct components. Interestingly, whereas the Big Six dimensions were not all identified in the Vietnamese six-factor solution, factors resembling all of the Big Six dimensions were identified to some degree in the eight-factor solution. There was resemblance between Big Six Extraversion and Vivaciousness, Big Six Agreeableness and Warm-heartedness-Virtue, Big Six Conscientiousness and Order, Big Six Intellect and Talented-Intellect, and Big Six Emotional Stability and Courage (inversely). The remaining three Vietnamese factors, Modesty, Straightforward-Genuineness, and Trustworthiness, showed modest to moderate overlap with aspects of Big Six Honesty-Humility. The pattern of gender differences for the eight-factor model also seemed meaningful. Thus, the eight-factor solution probably provides the best starting point for further exploration and clarification of the Vietnamese personality structure based on the lexical approach.

Theoretical and applied implications

In regard to theoretical implications, this study was able to contribute persuasive evidence supporting the cross-cultural

Table 8. Gender comparison of factor scores in the three-, six-, and eight-factor solutions

Factor solutions	Men		Women		<i>F</i>	<i>p</i>	partial eta ² value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Three-factor solution							
(3/1) Altruistic-Honesty	-.11	.93	.10	1.05	7.18	.01	.01
(3/2) Diligence	.06	1.01	-.05	0.99	2.1	.15	.00
(3/3) Talented-Vivaciousness	.25	.90	-0.21	1.02	38.23	.00	.05
Six-factor solution							
(6/1) Talented-Vivaciousness	.23	.91	-.20	1.02	31.70	.00	.05
(6/2) Warm-hearted-Virtue	.02	1.01	-.02	.99	.21	.65	.00
(6/3) Persistence	.11	1.01	-.09	.98	7.05	.01	.01
(6/4) Straightforward-Genuiness	-.09	.99	.07	1.00	4.15	.04	.01
(6/5) Open-mindedness	-.09	.98	.08	1.01	4.74	.03	.01
(6/6) Forgiving-Modesty	-.09	.98	.07	1.01	4.39	.04	.01
Eight-factor solution							
(8/1) Warm-hearted-Virtue	.14	.95	-.12	1.02	12.17	.01	.02
(8/2) Talented-Intellect	.20	.99	-.17	.98	23.34	.00	.04
(8/3) Straightforward-Genuiness	-.06	.99	.05	1.01	1.8	.18	.00
(8/4) Orderly-Industriousness	-.19	.99	.16	.98	21.58	.00	.03
(8/5) Trustworthiness	-.06	.97	.05	1.02	1.9	.17	0
(8/6) Courage	.33	.97	-.28	.94	67.10	.00	.09
(8/7) Vivaciousness	-.13	.99	.11	.99	10.09	.00	.02
(8/8) Modesty	-.19	.99	.16	.98	20.07	.00	.03

Note: *M* = mean; *SD* = standard deviation; *F* = F-distribution variable; *p* = p-value; partial η^2 = effect size.

generalizability of the Big One, Big Two, and, to a lesser extent, the Big Three and the growing view that a few broad dimensions replicate better across cultures than models based on larger numbers of dimensions (De Raad, Barelds, Levert, et al., 2010). We also identified dimensions resembling the Big Six, but more so in the eight-factor solution than in the six-factor solution. These findings provide greater support for cross-cultural similarities, or the “psychic unity” of humanity, than for substantial cultural differences. Some psychologists infer an evolutionary or bio-logical basis for these cross-cultural similarities, in which these traits are seen as universal aspects of human nature in the process of surviving, working, relating, and reproducing (Buss, 1996; McCrae & Costa, 1997; Nettle, 2006).

At the same time, some aspects of the emic Vietnamese structure suggested that comparable personality dimensions across groups may be conceptualized somewhat differently depending on the differences in societal, political, or cultural contexts (Caprara & Perugini, 1994; De Raad, Di Blas, & Perugini, 1998; Di Blas & Forzi, 1998; Yang & Bond, 1990). For example, the persistent blending of Talented-Intellect and Vivaciousness traits suggests that Vietnamese people perceive eloquent communication, dynamism, and emotional strength as closely related to the intellectual and creative aspects of intelligence. In this regard, the Vietnamese people’s view of intelligence may be different from the conventional view of intelligence, imagination, or openness to experience discussed in previous lexical studies (Angleitner, Ostendorf, & John, 1990; Boies et al., 2001; Caprara & Perugini, 1994; Saucier & Goldberg, 1996a; Hahn et al., 1999). Thus, the Vietnamese Talented-Vivaciousness di-

mension appeared to have a distinct cultural flavor. Similarly, the Intellect factor in the Turkish studies (Goldberg & Somer, 2000; Somer & Goldberg, 1999) also had a culture-specific flavor, combining with Modernism versus Traditionalism content. These findings may be of particular interest to re-searchers who adopt indigenous or cultural psychology perspectives in the study of personality and self across cultures (e.g., Heine, 2001), including those from collectivistic cultures such as Vietnam.

Regarding applied implications, the present study can provide a starting point for assessment of Vietnamese personality. Although the eight-factor solution in the present study probably provides the best starting point for instrument development, further research will first be needed to replicate, confirm, or refine the dimensions identified in the present data. In addition to a trait adjective measure, a measure based on more traditional situation-behavior sentences could also be developed, guided initially by the dimensions identified in Vietnamese lexical studies. However, this would require the extra step of identifying the situational behaviors that exemplify the various dimensions, which would again benefit from an emic or indigenous approach (e.g., by asking cultural informants to generate relevant situational behaviors).

Finally, although there are advantages to emic approaches, one need not exclude etic measures in applied assessment with Vietnamese. For example, imposed-etic measures such as the Revised NEO Personality Inventory (NEO-PI-R) could be used to investigate personality structure across cultures and to assess both normal and abnormal personality in counseling, educational, and vocational app-

lications in Vietnam. Similarly, cross-cultural adaptation of certain well-validated psychological instruments such as the Minnesota Multiphasic Personality Inventory (MMPI) or the Myers Briggs Type Indicator (MBTI) could be pursued to promote more understanding and application of psychology in Vietnam. Studies of the cross-cultural invariance of these imposed-etic measures would, of course, be desirable. Using a combined emic-etic approach, researchers could draw on both Western and Vietnamese culture-specific dimensions and traits to develop assessment inventories that assess normal and abnormal personality in Vietnam.

Strengths, limitations, and future directions

The present study was the first lexical study conducted in the Austroasiatic language family. It provides additional support for the efficacy of the theoretical perspective represented by the lexical approach, which identifies indigenous structures of personality traits expressed in single terms embedded in natural languages. Using an emic approach, it was possible to identify indigenous Vietnamese dimensions that were independent of the influence of imposed-etic or imported scales. As noted by Church et al. (1997, p. 505), indigenous factors identified in this way provide “a valuable starting point in the development of an indigenous scientific structure of personality, particularly in cultures with limited psychological literatures.”

Regarding comprehensiveness, 668 Vietnamese trait terms were selected from a list of 2,129 person-descriptive terms extracted from a comprehensive dictionary. After eliminating 81 evaluative terms with low means, 587 personality-descriptive terms were factor-analyzed, producing a hierarchy with one to eight dimensions. The number of terms rated in the present study was similar to those in previous lexical studies and thus the set of terms was probably large enough to derive a comprehensive and meaningful structure. Another strength of the study was the use of “standard” procedures, which will facilitate comparisons of lexical studies across cultures. This included the analysis of single terms chosen according to criteria such as independent ratings of clarity, familiarity, and personality relevance from seven judges, plus the classification of terms into an established person-descriptive taxonomy (Angleitner et al., 1990). Moreover, this study used etic marker scales in an effort to more objectively examine the replicability of etic models of personality structures in the Vietnamese context.

The balanced number of female and male participants and the diversity of the sample—including participants from different regions in the North, Central, and South of Vietnam—increased the generalizability of the findings. The analysis of gender differences represented another strength of this study as it provided tentative evidence for the meaningfulness of particular emic dimensions. The findings seemed consistent with the different societal or cultural expectations experienced by Vietnamese women and men.

The present study also had limitations. First, the dictionary culling and the taxonomic classification of the 2,129 Vietnamese person-descriptors were done solely by the first author. Without corroborating information from a panel of independent judges, it was not possible to assess the objectivity and reliability of these judgments. Although multiple

judges were used to obtain ratings of clarity, familiarity, and personality relevance, in general, the study followed the “one person, one taxonomy” habit that Angleitner et al. (1990) observed in many lexical studies. In the present case, this limitation can be explained by the limited resources available to the researchers during the study. In particular, it was found difficult to judge whether a term was purely evaluative or also had significant substantive meaning for personality. The limited quality of some English translations of Vietnamese terms in the Vietnamese-English Dictionary (Ed. Trịnh Tất Đạt, 2006) posed another challenge. It is recommended that investigators in future studies use more than one dictionary, with translations from Vietnamese to English and vice versa, as well as multiple judges at each step.

Other drawbacks of this study included a lack of peer-ratings, which might enable replication of the self-rating factor structures, and the elimination of 140 participants due to random response patterns or large numbers of omitted items. It would be useful for researchers to independently conduct several rigorous studies in the Vietnamese language in order to identify and compare factors that might result from different procedures for culling, selecting, classifying, and factor-analyzing person-descriptive terms.

Concerning the sample, a majority of participants were college students and only a very small number of community-based participants were sampled. Further research is needed to include participants from diverse backgrounds in regard to age, occupation, and education so that the results can be generalized beyond the university population. Another limitation was that 99% of participants identified themselves as Vietnamese or Kinh, the largest ethnic group in Vietnam. Because Vietnam is an ethnically diverse country with over 54 distinct ethnic groups recognized by the government, future research needs to incorporate participants from ethnic minorities. The use of a relatively educated sample may have biased the results in the direction of greater cross-cultural replication of the etic models. It seems likely that the etic structures will replicate even less well in less educated or more representative samples.

Given the availability of both raw and ipsatized data, and sets of terms with and without pure evaluative terms, the number of factor solutions that could have been examined and reported in this study was quite large. Thus, once it was apparent that the factors in the raw data were less interpretable, it was decided to focus on the ipsatized data, which has been common in lexical studies. In addition, it was decided to report only factor solutions derived after eliminating some pure evaluation terms with low item means. In the future, further analyses of these alternative factor solutions could be done. For the same reasons, there was a reliance on theory (i.e., the existing etic models) to determine the number of factors to extract, which ranged from one to eight. These factor solutions did not account for large proportions of the total variance. Although this is not uncommon in lexical studies with very large numbers of variables, in future research it would be worth examining factor solutions with even more factors to see if more refined factors can be identified. These factors are likely to be small, however, given the size of the smaller factors in the present analyses.

In sum, this study produced results consistent with the growing support for the one-, two- and three-factor solutions as parsimonious frameworks, at a high level of generality,

for understanding personality structures across cultures and languages. However, it failed to clearly replicate the Big Five, Big Six, and ML7 models that were reproduced in several lexical studies. This could be due to the limited applicability of the models for some cultures, a limited number of representative terms defining these factor models in the Vietnamese language, or the exclusion of certain attributes such as temporary states and evaluations from the terms rated in this study.

Conclusion

In this lexical study, the process of culling and categorizing person-descriptive terms, administering the trait questionnaire to a large sample in Vietnam, and identifying indigenous dimensions through factor analyses was a daunting yet meaningful task. Previous lexical studies in different languages have produced convincing evidence supporting the application of the lexical approach in identifying universal and indigenous personality traits encoded in a natural language. They also established several models of personality structure capturing the cross-cultural universality of human experiences. Using an emic approach, the present study sought to identify indigenous Vietnamese dimensions of personality. The results support the cross-cultural generalizability of broad trait models such as the Big One, Big Two, and Big Three. Although the Vietnamese five-, six-, and seven-factor solutions did not replicate the Big Five, Big Six, and ML7 models, their semantic contents contained variants of those etic structures.

Finally, although further replication is needed, the eight-factor solution appears to provide the most interpretable set of dimensions and the best starting point for subsequent studies or assessment efforts. These eight dimensions were labeled Warm-heartedness, Talented-Intellect, Straightforward-Genuineness, Orderly-Industriousness, Trustworthiness, Courage, Vivaciousness, and Modesty. Interestingly, each of the Big Six dimensions was represented to some degree by factors in the eight-factor solution. Although the study revealed some possibly unique aspects of certain dimensions in the Vietnamese factor structures, the overall results suggested greater cross-cultural similarity than differences in the organization of personality traits. Further research is needed, however, to replicate the findings of this initial study and to develop a more sophisticated framework for understanding Vietnamese personality in its unique societal, political, and cultural contexts.

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Appendix A: Marker scales

Big One Marker Items

Diligent (Chăm chỉ), Generous (Rộng lòng), Honest (Thật thà), Careful (Cẩn thận), Kind (Tốt bụng), Patient (Kiên nhẫn), Respectful (Giữ phép), Responsible (Trách nhiệm), Thoughtful (Sâu sắc), Active (Năng nổ), Brave (Dũng cảm), Conscientious (Chu đáo), Dependable (Trung tín), Disciplined (Kỷ cương), Dutiful (Chu toàn), Friendly (Niềm nở), Gentle (Nhỏ nhẹ), Humane (Nhân hậu), Polite (Lịch sự), Lazy (Lười biếng), Selfish (Ích kỷ), Envious (Ganh tị), Gossipy (Lắm điều), Greedy (Tham lam), Sad (Buồn), Stingy (Keo kiệt)

Big Two Marker Items

Social Self-Regulation (Tự chủ)

Honest (Thật thà), Kind (Tốt bụng), Generous (Rộng lòng), Gentle (Nhỏ nhẹ), Obedient (Vâng lời), Respectful (Giữ phép), Diligent (Chăm chỉ), Responsible (Trách nhiệm), Calm (Bình tĩnh), Careful (Cẩn thận), Self-disciplined (Kỷ cương), Patient (Kiên nhẫn), Benevolent (Nhân từ), Conscientious (Chu đáo), Courteous (Hoà nhã), Dutiful (Chu toàn), Faithful (Trung thành), Good-natured (Hiền hậu), Humane (Nhân hậu), Industrious (Cần mẫn), Simple (Đơn giản), Thoughtful (Sâu sắc), Selfish (Ích kỷ), Envious (Ganh tị), Gossipy (Lắm điều), Hot-headed (Nóng nảy), Rebellious (Ngang tàng)

Dynamism (Năng động)

Active (Năng nổ), Brave (Dũng cảm), Bold (Dạn dĩ), Daring (Gan dạ), Dynamic (Năng động), Clever (Khôn khéo), Courageous (Can đảm), Enterprising (Mạnh dạn), Intelligent (Thông minh), Talkative (Hay nói), Vigorous (Kiên quyết), Timid (Nhút nhát), Weak (Yếu đuối), Shy (E thẹn), Fearful (Sợ hãi), Pessimistic (Bi quan), Sad (Buồn), Silent (Ít nói), Anxious (Lo lắng), Depressed (Phiền muộn), Introverted (Nội tâm), Melancholy (U sầu), Taciturn (Lầm lì)

Big Three Marker Items

Affiliation (Liên kết)

Humane (Nhân hậu), Mild-tempered (Hiền khô), Benign (Hiền lành), Soft-hearted (Từ tâm), Compassionate (Đồng cảm), Kind (Tốt bụng), Gentle (Nhỏ nhẹ), Well-intentioned (Hiền lương), Understanding (Hiểu biết), Merciful (Từ bi), Magnanimous (Cao thượng), Sympathetic (Thông cảm), Charitable (Nhân đức), Warm-hearted (Nồng hậu), Hospitable (Hiếu khách), Affectionate (Tình cảm), Conciliatory (Khoan nhượng), Caring (Lưu tâm), Aggressive (Hung hăng), Revengeful (Thù vật), Obstinate (Ngang bướng), Supercilious (Kiêu kỳ), Arrogant (Kiêu ngạo), Abrupt (Cộc cằn), Self-important (Tự cao), Despotism (Độc tài), Quarrelsome (Lý sự), Bossy (Hách dịch), Harsh (Khắt khe), Hard-hearted (Nhẫn tâm), Conceited (Cao ngạo), Ruthless (Tàn nhẫn), Hard (Cứng nhắc), Overbearing (Hống hách), Egotistical (Tự đại)

Dynamism (Năng động)

Loquacious (Ba hoa), Extroverted (Hoà đồng), Talkative (Hay nói), Vivacious (Hoạt bát), Dynamic (Năng động), Cheerful (Vui vẻ), Enterprising (Mạnh dạn), Fast (Nhanh nhẹn), Merry (Vui tươi), Brisk (Nhanh nhẩu), Vigorous (Mạnh mẽ), Unrestrained (Sỗ sàng), Energetic (Xông xáo), Self-confident (Tự tin), Outspoken (Thẳng thắn), Bold (Dạn dĩ), Active (Năng nổ), Enthusiastic (Nồng nhiệt), Spontaneous (Tự nhiên), Adventurous (Phiêu lưu), Depressed (Phiền muộn), Insecure (Tự ti), Timid (Nhút nhát), Inhibited (Kín kè), Sombre (U sầu), Pessimistic (Bi quan), Reserved (Dè chừng), Hesitating (Lưỡng lự), Passive (Thụ động), Bashful (Thẹn thùng, Quiet (Trầm lặng), Sad (Buồn), Introverted (Nội tâm), Shy (E thẹn), Taciturn (Lầm lì), Closed (Khép kín)

Order (Nề nếp)

Well-balanced (Chừng mực), Self-disciplined (Kỷ cương), Precise (Kỹ tính), Steady (Vững vàng), Organized (Ngăn nắp), Purposeful (Chí hướng), Responsible (Trách nhiệm), Determined (Quyết tâm), Hard-working (Siêng năng), Decisive (Quả quyết), Diligent (Chăm chỉ), Steadfast (Kiên quyết), Methodical (Quy củ), Industrious (Cần mẫn), Practical (Thực tế), Forgetful (Hay quên), Neglectful (Chênh mảng), Absent-minded (Loãng đãng), Irresponsible (Vô trách nhiệm), Imprudent (Đuối đầu), Improvident (Hoang phí), Unwise (Khờ dại), Wishy-washy (Nhu nhược), Hasty (Nóng vội), Inattentive (Đãng trí)

Big Five Marker Items

Surgeency (Chan hoà)

Enthusiastic (Nồng nhiệt), Vivacious (Hoạt bát), Extroverted (Hoà đồng), Adventurous (Phiêu lưu), Carefree (Vô tư), Spontaneous (Tự nhiên), Active (Năng nổ), Talkative (Hay nói), Brave (Dũng cảm), Courageous (Can đảm), Confident (Tự tin), Frank (Ngay thật), Straightforward (Thẳng tính), Humorous (Hài hước), Witty (Hóm hỉnh), Ambitious (Tham vọng), Cheerful (Vui vẻ), Merry (Vui tươi), Optimistic (Lạc quan), Quiet (Trầm lặng), Silent (Ít nói), Reserved (Dè chừng), Bashful (Thẹn thùng), Shy (E thẹn), Timid (Nhút nhát), Passive (Thụ động), Pessimistic (Bi quan), Sombre (U sầu)

Agreeableness (Hoà thuận)

Patient (Kiên nhẫn), Friendly (Niềm nở), Cordial (Khả ái), Kind (Tốt bụng), Sympathetic (Thông cảm), Understanding (Hiểu biết), Lenient (Nhường nhịn), Courteous (Nhã nhặn), Polite (Lịch sự), Benevolent (Nhân từ), Generous (Rộng lòng), Humble (Khiêm tốn), Ethical (Công minh), Honest (Thật thà), Principled (Quy tắc), Moral (Đạo đức), Sincere (Thành thực), Affectionate (Tình cảm), Compassionate (Đồng cảm), Charitable (Nhân đức), Modest (Giản dị), Argumentative (Lý lẽ), Quarrelsome (Lý sự), Faultfinding (Xoi mói), Harsh (Khắt khe), Bossy (Hách dịch), Manipulative (Thù đoạn), Disrespectful (Hỗn hào), Impudent (Xác xược), Pompous (Phô trương), Snobbish (Đua đòi), Irritable (Cáu kỉnh), Boastful (Huênh hoang), Conceited (Cao ngạo), Obsitnate (Ngang bướng), Stubborn (Bướng bỉnh), Suspicious (Đa nghi), Greedy (tham lam), Selfish (Ích kỷ), Cold (Lạnh lùng), Cunning (Khôn ranh), Crafty (Muru mô), Stingy (Keo kiệt), Deceitful (Lừa dối)

Conscientiousness (Chu toàn)

Orderly (Nề nếp), Organized (Ngăn nắp), Self-disciplined (Kỷ cương), Responsible (Trách nhiệm), Meticulous (Tỉ mỉ), Perfectionistic (Cầu toàn), Precise (Kỹ tính), Industrious (Cần mẫn), Persistent (Kiên trì), Careful (Cẩn thận), Prompt (Lanh lợi), Decisive (Quả quyết), Purposeful (Chỉ hướng), Steady (Vững vàng), Thrifty (Cần kiệm), Logical (Lý trí), Disorganized (Vô tổ chức), Sloppy (Bê bối), Careless (Bất cẩn), Negligent (Cẩu thả), Forgetful (Hay quên), Absent-minded (Lơ đãng), Lazy (Lười biếng), Extravagant (Phung phí)

Emotional Stability (Vững tâm)

Independent (Tự lập), Autonomous (Độc lập), Unexcitable (Điềm đạm), Placid (Điềm tĩnh), Anxious (Lo lắng), Envious (Ganh tị), Fearful (Sợ hãi), Insecure (Tự ti), Touchy (Nhạy cảm), Naïve (Ngây thơ)

Intellect (Trí tuệ)

Intellectual (Trí thức), Philosophical (Thông thái), Intelligent (Thông minh), Smart (Khôn lanh), Artistic (Tài hoa), Creative (Sáng tạo), Imaginative (Giàu tưởng tượng), Sophisticated (Tinh khôn), Refined (Khôn khéo), Ignorant (Ngu dốt), Unintelligent (Dại khờ), Shallow (nông cạn)

Big Six Marker Items

Extraversion (Hoà đồng)

Active (Năng nổ), Chatty (Lắm chuyện), Cheerful (Vui vẻ), Dynamic (Năng động), Energetic (Xông xáo), Enthusiastic (Nồng nhiệt), Talkative (Hay nói), Vigorous (Mạnh mẽ), Vivacious (Hoạt bát), Bashful (Thẹn thùng), Closed (Khép kín), Introverted (Nội tâm), Passive (Thụ động), Quiet (Trầm lặng), Reserved (Dè chừng), Shy (E thẹn), Silent (Ít nói), Taciturn (Lâm li), Timid (Nhút nhát)

Agreeableness (Hoà thuận)

Accommodating (Dễ dãi), Friendly (Niềm nở), Benevolent (Nhân từ), Conciliatory (Khoan nhượng), Gentle (Nhò nhẹ), Good-natured (Hiền hậu), Kind-hearted (Phúc hậu), Lenient (Nhuông nhịn), Meek (Ngoan ngoãn), Patient (Kiên nhẫn), Sympathetic (Thông cảm), Tolerant (Nhẫn nại), Aggressive (Hung hăng), Bossy (Hách dịch), Brusque (Lỗ mắng), Despotism (Độc tài), Domineering (Độc đoán), Fierce (Hung dữ), Hot-tempered (Nóng tính), Irritable (Cáu kỉnh), Overbearing (Hống hách), Quarrelsome (Lý sự), Short-tempered (Hay cáu), Stubborn (Bướng bỉnh)

Conscientiousness (Chu toàn)

Careful (Cẩn thận), Conscientious (Chu đáo), Diligent (Chăm chỉ), Disciplined (Kỷ cương), Dutiful (Chu toàn), Hard-working (Siêng năng), Industrious (Cần mẫn), Methodical (Quy củ), Meticulous (Tỉ mỉ), Orderly (Nề nếp), Organized (Ngăn nắp), Precise (Kỹ tính), Tidy (Gọn ghẽ), Absent-minded (Lơ đãng), Careless (Bất cẩn), Imprudent (Đuềnh đoảng), Irresponsible (Vô trách nhiệm), Lazy (Lười biếng), Negligent (Cẩu thả), Untidy (Lôi thôi)

Emotional Stability (Vững tâm)

Brave (Dũng cảm), Confident (Tự tin), Courageous (Can đảm), Imperturbable (Điềm tĩnh), Optimistic (Lạc quan), Resolute (Cương quyết), Self-confident (Tự tin), Steady (Vững vàng), Well-balanced (Chừng mực), Anxious (Lo lắng), Delicate (Mềm yếu), Fragile (Mềm mỏng), Fearful (Sợ hãi), Insecure (Tự ti), Sensitive (Nhạy cảm), Sentimental (Đa sầu), Worrying (Lo nghĩ)

Intellect (Trí tuệ)

Artistic (Tài hoa), Bright (Nhanh trí), Clever (Khôn khéo), Creative (Sáng tạo), Educated (Học thức), Intellectual (Trí thức), Intelligent (Thông minh), Sharp (Tinh ý), Smart (Khôn lanh), Talented (Tài năng), Wise (Khôn ngoan), Backward (Lạc hậu), Conservative (Bảo thủ), Ignorant (Ngu dốt), Silly (Khù khờ), Simple (Đơn giản), Stupid (Ngu ngốc), Unsophisticated (Mộc mạc)

Honesty-Humility (Thành thật-Khiêm nhường)

Altruistic (Vị tha), Fair (Sòng phẳng), Faithful (Trung thành), Frank (Ngay thật), Generous (Rộng lòng), Honest (Thành thật), Humane (Nhân hậu), Just (Công bằng), Loyal (Trung hiếu), Modest (Giản dị), Trustworthy (Uy tín), Truthful (Chân thật), Unassuming (Khiêm nhường), Arrogant (Kiêu ngạo), Boasting (Khoe khoang), Calculating (Tính toán), Conceited (Cao ngạo), Cunning (Khôn ranh), Greedy (Tham lam), Haughty (Ngạo mạn), Hypocritical (Đạo đức giả), Pompous (Phô trương), Pretending (Giả tạo), Pretentious (Tự phụ), Stingy (Keo kiệt)

Multi-Language Seven (ML7) Marker Items

Gregariousness (Chan hoà)

Talkative (Hay nói), Chatty (Lắm chuyện), Sociable (Hòa đồng), Quiet (Trầm lặng), Silent (Ít nói), Reclusive (Cô lập), Serious (Nghiêm chỉnh)

Self-Assurance (Tự tin)

Confident (Tự tin), Brave (Dũng cảm), Active (Năng nổ), Fearful (Sợ hãi), Scared (Sợ sệt), Cowardly (Hèn nhát), Weak (Yếu đuối)

Even-Temper (Điềm tĩnh)

Short-tempered (Hay cáu), Irritable (Cáu kỉnh), Hot-tempered (Nóng tính), Impatient (Nôn nóng)

Concern for Others (Lưu tâm)

Compassionate (Đồng cảm), Generous (Rộng lòng), Soft-hearted (Tủi tâm), Sentimental (Đa cảm), Humble (Khiêm tốn), Conceited (Cao ngạo)

Conscientiousness (Chu toàn)

Neat (Gọn gàng), Orderly (Nề nếp), Meticulous (Tỉ mỉ), Perfectionistic (Cầu toàn), Strict (Nghiêm khắc), Thrifty (Cần kiệm), Pious (Hiếu thảo), Sloppy (Tùy tiện), Forgetful (Hay quên)

Originality/Virtuosity (Sáng tạo)

Talented (Tài năng), Imaginative (Giàu tưởng tượng), Knowledgeable (Am hiểu), Artistic (Tài hoa), Philosophical (Thông thái), Sophisticated (Tinh thông)

Negative Valence (Tiêu cực)

Trustworthy (Uy tín), Good-for-nothing (Vô tích sự), Corrupt (Tham nhũng), Evil (Độc ác), Weird (Kỳ quặc), Stupid (Ngu ngốc)

Appendix B: Factor loading matrix for the eight-factor solution

Vietnamese terms	English translations	I	II	III	IV	V	VI	VII	VIII
		Warm-hearted- Virtue	Talented- Intellect	Straightforward- Genuineness	Orderly- Industriousness	Trustworthiness	Courage	Vivaciousness	Modesty
Hiền hậu	Good-natured	.56	.10	.06	.06	.13	0	-.06	.14
Hiền hòa	Amiable	.50	-.07	.11	.14	.18	.05	.02	0
Hiền lành	Good-natured	.49	-.16	.05	.09	.15	.01	-.02	.04
Hiền từ	Kindhearted	.49	-.03	.13	.06	.06	.02	-.05	.16
Hiền đức	Benevolent	.47	.15	.11	.08	.22	.03	.04	.15
Rộng lòng	Generous	.46	.06	.17	.01	.04	.10	.06	.23
Hiền khô	Mild-tempered	.45	-.10	-.12	0	.13	.06	-.21	.04
Dễ bảo	Malleable	.44	-.04	-.08	.04	.11	-.02	-.05	.04
Thiệt thà	Honest	.44	-.11	.16	.10	.10	.17	.12	.19
Nhân đức	Charitable	.43	.08	.25	.15	.11	.10	.14	.13
Đức độ	Righteous	.41	.13	.12	.09	.27	.14	.02	.08
Ngoan ngoãn	Meek	.41	.07	.02	.27	.07	-.10	-.01	.13
Phúc hậu	Kind-hearted	.41	.07	.24	.17	.08	.01	.09	.17
Thánh thiện	Holy	.40	-.08	.01	.16	.14	.04	.16	.03
Nhường nhịn	Lenient, yielding	.39	-.04	.15	.14	.07	.05	.01	.18
Bác ái	Altruistic	.38	.13	.14	-.01	.05	.06	0	.24
Bao dung	Forgiving	.38	.15	.11	-.02	.20	.01	-.04	.23
Từ bi	Merciful	.37	.09	.11	.04	.20	.06	.02	.07
Đôn hậu	Warm-hearted	.36	.15	.08	.10	.21	0	-.10	.18
Ôn hòa	Even-tempered	.36	-.07	.16	.11	.16	.01	.04	.03
Tốt	Good	.36	.07	.09	.09	.15	-.05	.24	.02
Tốt bụng	Kind	.36	.02	.12	.09	.25	-.03	.17	.10
Đạo đức	Moral	.35	.03	.10	.18	.29	.08	.08	.12
Đức hạnh	Virtuous	.35	.09	.14	.17	.15	-.01	.05	.10
Hòa nhã	Courteous	.35	-.02	.10	.19	.12	.10	.26	.06
Khoan dung	Forgiving	.35	-.04	.14	.09	-.08	.01	.07	.26
Nhã nhặn	Courteous	.35	.06	.03	.20	.18	-.01	-.11	.04
Nhân hậu	Humane	.35	.04	.18	-.04	-.01	.02	.08	.22
Nhò nhẹ	Gentle	.35	-.12	.16	.27	.08	.01	-.17	.03
Phúc đức	Beneficent	.35	.11	.18	-.01	.08	.03	.03	.08
Thực thà	Honest	.35	-.11	.07	.07	.36	.07	-.01	.02
Vị tha	Altruistic	.35	-.02	.29	.07	.14	.06	.07	.17
Dễ tính	Complaisant	.34	-.09	-.15	-.09	.30	.02	.11	.06
Hiền lương	Well-intentioned	.34	-.01	.05	-.04	.31	-.01	-.14	-.01
Rộng lượng	Kind and generous	.34	0	.15	-.03	-.01	.21	.09	.21
Thật thà	Honest	.34	-.12	.14	.10	.11	.10	.08	.18
Nhân từ	Benevolent	.33	-.02	-.10	-.08	.27	-.06	.01	-.01
Ôn hậu	Genial	.33	.07	.09	.10	.21	.07	-.05	.05
Thành tâm	Sincere	.33	.03	.09	.04	.26	-.04	.03	.11
Trung tín	Dependable	.33	.04	.19	.09	.29	.17	-.02	.10
Vâng lời	Obedient	.33	-.05	0	.20	.25	-.06	.04	.09
Chân thành	Earnest	.32	-.02	.18	.05	.14	.04	.05	.27
Điềm đạm	Unexcitable	.32	.04	.01	.18	.15	.09	-.33	.21
Thành thật	Truthful	.32	-.06	.20	.15	.21	.08	.13	.21
Tốt lành	Kindhearted	.32	-.01	-.05	.05	.42	.01	.05	-.06
Chăm chỉ	Diligent	.31	.15	.02	.51	.05	.10	.07	.12
Chân thật	Truthful	.31	-.05	.21	.05	.24	.04	.13	.17
Hiếu học	Studious	.31	.16	.17	.32	.21	.11	.04	-.03
Khiêm tốn	Humble	.31	-.02	-.06	.10	.21	.01	-.13	.02
Khoan nhượng	Conciliatory	.31	.02	-.02	0	.25	.12	-.04	-.04
Tốt nét	Well-disposed	.31	.02	-.13	.18	.38	-.11	.11	-.04
Dễ chịu	Pleasant	.30	-.04	.06	.07	.10	.07	.17	.21
Giữ phép	Respectful	.30	-.02	.12	.23	.32	.01	.01	.04
Siêng năng	Hard-working	.30	.08	-.05	.47	.06	.06	.15	.10
Từ tế	Gracious	.30	-.01	.20	.05	.33	.07	.15	.06
Cứng đầu	Strong-headed	-.53	-.27	.20	-.14	-.10	-.06	.09	.10
Ương bướng	Mullish	-.53	-.24	.21	-.12	-.01	-.16	.10	.09
Lì lợm	Intractable	-.52	-.16	.10	-.20	-.03	-.06	.03	-.05
Nóng tính	Hot-tempered	-.47	-.09	.19	-.11	.08	-.12	.06	.06

Khó bảo	Restive	-.45	-.26	.03	-.08	.13	-.04	.10	-.12
Ngang bướng	Obstinate	-.45	-.19	.25	-.11	-.08	-.11	.12	.14
Bướng bỉnh	Stubborn	-.43	-.22	.23	-.05	-.05	-.13	.22	.07
Cổ chấp	Refractory	-.42	-.30	.19	-.08	.11	-.15	.05	-.15
Hung hăng	Aggressive	-.41	-.06	-.03	-.04	-.14	0	.10	.02
Ngang tàng	Rebellious	-.40	.08	-.01	-.16	.07	.02	.03	.16
Hung dữ	Fierce	-.39	-.12	-.09	-.08	-.17	.01	.06	.01
Ngoan cố	Strong-headed	-.39	-.23	.06	-.12	.01	-.02	.03	-.19
Nóng nảy	Hot-headed	-.39	-.20	.26	-.08	-.11	-.11	.04	.03
Ngang ngược	Uncooperative	-.38	.01	0	-.27	-.09	-.14	.10	.26
Dữ tợn	Aggressive	-.37	.01	-.21	-.06	-.03	0	.08	.07
Liều lĩnh	Gutsy	-.37	.07	.12	-.17	.15	.15	.07	.18
Gan lì	Daring	-.36	-.01	.10	-.08	.01	.28	-.01	.02
Cộc cằn	Abrupt	-.34	-.25	-.09	-.07	-.17	.01	-.05	-.04
Hay cáu	Short-tempered	-.34	-.17	.34	-.06	-.11	-.12	.03	.09
Khó chịu	Disagreeable	-.34	-.23	.14	-.07	-.20	-.15	-.11	.11
Khó tính	Fastidious	-.34	-.15	.29	.15	-.10	-.06	-.06	-.01
Ương ngạnh	Wayward	-.34	-.19	.13	-.12	-.06	0	.05	-.16
Liều mạng	Reckless	-.33	.03	-.05	-.19	.06	.14	-.06	.14
Ngỗ nghịch	Insolent	-.33	-.03	-.07	-.19	-.14	-.03	.15	.06
Nóng vội	Hasty	-.33	-.21	.27	-.20	-.14	-.12	.04	.04
Cương ngạnh	Incaltrant	-.32	-.12	.17	-.15	-.08	-.02	-.06	-.06
Đanh thép	Steely	-.32	.10	-.05	.01	.22	.21	-.11	-.15
Nông nổi	Inconsiderate	-.32	-.11	.03	-.34	-.09	-.13	-.03	-.02
Hung tợn	Violent	-.31	-.04	-.19	-.10	-.08	.05	.02	0
Nghịch nghợm	Playful	-.30	.03	.13	-.32	-.13	.01	.24	.22
Phá phách	Mischievous	-.30	.06	-.01	-.34	-.04	.10	.11	.11
Nhanh trí	Bright	-.04	.57	-.05	-.06	.02	.03	.15	0
Tài năng	Talented	.16	.55	.01	.04	-.05	.02	.10	-.09
Tinh thông	Literate	.14	.54	.15	.03	-.05	.12	.01	.10
Học rộng	Erudite	.15	.54	-.12	.08	-.02	-.03	-.04	.13
Thành thạo	Skilled	.03	.50	0	.13	-.01	.02	-.03	.16
Sáng tạo	Creative	.05	.50	.08	-.05	.07	.11	.07	.05
Sáng trí	Brainy	.09	.50	.14	.02	.14	.12	.09	-.01
Thông thái	Philosophical	.15	.50	.03	.07	.14	.06	-.01	-.03
Nhanh nhẹn	Fast	-.11	.48	-.02	.10	.15	.11	.31	.06
Tinh khôn	Sophisticated	-.04	.48	.07	-.01	-.02	.09	.15	-.07
Mưu trí	Clever	0	.48	.01	0	-.04	.21	.08	-.08
Thông minh	Intelligent	.16	.48	.12	.08	-.14	.06	.17	-.04
Khôn ngoan	Wise	.03	.47	0	.03	.07	.06	.09	-.12
Giỏi giang	Adept	.13	.47	.02	.17	.18	.07	.13	-.09
Lanh trí	Quick-minded	.01	.46	.03	.07	.22	.12	.27	-.13
Nhạy bén	Keen	.04	.44	.09	.15	.06	.19	.27	-.03
Tài đức	Talented and virtuous	.29	.44	-.11	.06	.07	.12	-.01	-.02
Hiểu biết	Understanding	.19	.43	.15	.14	-.08	.11	.14	.01
Tài trí	Brilliant	.19	.42	.07	.08	-.09	.19	.14	.02
Uyên bác	Scholarly	.20	.42	-.07	.05	.07	.15	-.07	.04
Khôn lanh	Smart	-.19	.41	-.03	-.07	.08	-.04	.13	-.07
Tự tin	Self-confident	-.04	.41	-.12	.06	.16	.19	.08	-.04
Khôn ranh	Cunning	-.26	.40	-.01	-.10	.02	.01	-.05	-.06
Bén nhạy	Keen	-.11	.40	.16	.07	.06	.17	.06	0
Giỏi ăn nói	Eloquent	-.05	.40	0	.16	-.04	.07	.41	-.01
Lưu loát	Fluent	.05	.40	.09	.17	-.19	.12	.26	.02
Kinh nghiệm	Experienced	.12	.40	-.02	.19	.18	.17	.02	-.12
Am hiểu	Knowledgeable	.17	.40	.10	.11	-.02	.10	.07	-.09
Tài giỏi	Proficient	.23	.40	-.02	.17	-.01	.13	.13	-.05
Thạo đời	Worldly-wise	-.08	.39	-.10	-.04	.07	.12	-.11	.02
Lanh lợi	Prompt	-.01	.38	.15	.03	-.09	.11	.33	.02
Khí phách	Intrepid	.05	.37	.05	-.13	.04	.35	-.11	.14
Khéo nói	Persuasive	0	.36	-.05	.14	.01	.09	.36	-.07
Tinh ranh	Leery	-.28	.35	.05	-.2	.01	.01	.04	-.10
Mau miệng	Voluble	-.20	.35	-.06	-.02	.06	-.07	.44	0
Khôn khéo	Clever	.10	.35	.01	.18	.02	.09	.21	-.10
Trí thức	Intellectual	.24	.34	.17	.19	-.04	.09	.02	-.04
Sành sỏi	Wordly-wise	-.07	.33	-.03	-.01	-.08	.16	.05	-.09
Mau lẹ	Swift	0	.33	.09	.19	.05	.07	.39	.03
Trưởng thành	Mature	.07	.32	.01	.22	.09	.17	-.02	.03
Uy nghiêm	Solemn	.09	.32	.09	.16	.05	.33	-.16	.06
Tài hoa	Artistic	.18	.32	-.04	.12	.06	.04	.15	-.18

Sáng ý	Clear-sighted	.15	.31	.24	.09	0	.13	.24	-.05
Vững chí	Unflinching	.04	.30	-.07	.24	.25	.33	-.11	.15
Dũng cảm	Brave	.08	.30	-.03	.04	.16	.41	.06	.13
Ngốc nghếch	Stupid	-.05	-.48	-.12	-.09	.09	-.11	.07	-.12
Cả tin	Credulous	.03	-.42	0	-.17	.07	-.20	.07	-.09
Khù khờ	Silly	.09	-.42	-.14	-.12	.05	.04	-.06	-.03
Chậm chạp	Slow	.10	-.42	-.15	-.10	0	-.20	-.21	-.03
Thụ động	Passive	-.05	-.41	-.18	-.07	-.07	-.15	-.23	-.11
Vô tích sự	Good-for-nothing	-.10	-.39	-.25	-.20	.02	-.17	-.02	.05
Bì quan	Pessimistic	-.08	-.39	-.04	-.03	0	-.21	-.13	-.19
Dại khờ	Unintelligent	-.03	-.39	-.14	-.11	.10	-.11	-.03	-.06
Ngủ ngốc	Stupid	-.13	-.38	-.17	-.09	.03	-.05	-.05	.08
Bị động	Passive	.03	-.38	.12	-.18	-.10	-.16	-.18	.02
Khổ tâm	Distressed	-.16	-.37	-.01	.03	.05	-.08	-.09	-.16
Tự ti	Insecure	-.07	-.37	.06	.02	-.03	-.26	-.17	.02
Bất cần	Careless	-.15	-.36	-.05	-.16	-.03	-.02	.06	-.17
Buồn	Sad	-.13	-.36	.21	.04	-.09	-.23	-.22	.19
Lù đù	Half-witted	-.01	-.36	-.24	-.13	.02	0	-.16	-.05
Chậm tiến	Backward	.01	-.36	-.09	-.08	-.11	-.11	-.16	.05
Bất lực	Impotent	0	-.35	-.18	0	.06	-.19	-.09	.08
Mềm yếu	Delicate	.12	-.34	.06	.01	-.02	-.45	-.07	.11
Hay quên	Forgetful	-.14	-.33	.17	-.23	.03	-.10	.08	.02
Mặc cảm	Insecure	-.09	-.33	.06	.03	-.18	-.19	-.20	.12
Nông cạn	Shallow	.07	-.33	-.16	-.17	-.08	-.08	-.09	.02
Vụng về	Clumsy	-.06	-.32	.04	-.31	.07	-.14	-.03	-.03
Lôi thôi	Untidy	.06	-.32	-.06	-.28	.01	.06	-.05	-.19
Đãng trí	Inattentive	-.13	-.31	.24	-.25	-.09	-.12	.04	-.06
Ưu sầu	Somber, melancholy	-.15	-.30	.15	.08	-.13	-.23	-.28	.11
Bồng bột	Ebullient	-.09	-.30	.13	-.27	.02	0	.11	-.03
Tò mò	Curious	-.10	0	.38	-.09	-.18	-.08	.19	.01
Tình cảm	Affectionate	.21	-.10	.36	.06	.16	-.10	.20	.10
Đa nghi	Suspicious	-.25	-.06	.36	-.03	-.15	-.22	-.10	-.10
Sòng phẳng	Fair	.06	0	.35	.11	-.03	.07	.12	.19
Hoài nghi	Suspicious	-.27	-.10	.34	-.03	-.14	-.19	-.07	-.16
Nội tâm	Introverted	-.04	-.26	.33	.13	.03	-.09	-.21	.04
Nôn nóng	Impatient	-.28	-.18	.32	-.27	-.17	-.13	0	.05
Lưỡng lự	Indecisive, hesitating	.03	-.23	.31	-.09	-.20	-.21	-.04	.02
Tần tiện	Parsimonious	.09	.21	.31	.16	-.03	.16	.12	-.04
Khó hiểu	Mysterious	-.28	-.17	.30	-.16	-.07	-.17	-.10	.01
Giữ lời	Good as one's word	.12	-.06	.30	.22	.05	.17	.04	.14
Yêu nước	Patriotic	.15	-.06	.30	.01	.07	.14	.17	-.01
Tình nghĩa	Gracious	.24	-.02	.30	.07	.11	.13	.09	.15
Chừng mực	Well-balanced	.16	.06	.30	.18	.10	.04	-.07	.17
Lý lẽ	Argumentative	-.14	.23	.30	.08	-.09	-.02	.06	.01
Bội nghĩa	Unappreciative	-.04	-.14	-.57	.05	.02	.04	.06	-.12
Vô giáo dục	Uneducated	.07	-.08	-.55	.06	.16	.05	.04	-.04
Thô bỉ	Vulgar	-.05	-.16	-.51	-.08	-.15	.05	.02	-.15
Tro tráo	Audacious	-.01	-.16	-.49	-.05	.01	.01	0	-.14
Bất trung	Disloyal	-.05	-.12	-.48	.03	-.01	-.05	.02	-.13
Bội ơn	Ungrateful	.02	-.10	-.48	.03	-.01	-.07	0	-.08
Phản bội	Treacherous	-.09	-.08	-.47	.02	-.11	-.07	0	-.10
Vô ơn	Ungrateful	-.01	.04	-.47	.06	-.15	-.12	.02	.07
Vô phép	Ungracious, discourteous	-.11	-.11	-.46	-.17	-.18	.01	-.03	-.03
Bất hiếu	Impious	-.07	.05	-.44	-.01	.13	-.11	-.06	.14
Bất lịch sự	Discourteous, Impolite	-.06	-.09	-.43	-.11	-.23	-.01	-.02	.03
Lừa bịp	Fraudulent	-.07	.01	-.43	-.04	-.35	-.01	-.04	-.11
Gian trá	Uncandid	-.05	-.10	-.42	.07	-.13	.02	-.03	-.19
Xấu bụng	Ill-disposed	-.12	-.11	-.41	-.05	-.21	-.03	.01	-.18
Vô lễ	Discourteous	-.10	-.10	-.40	-.05	-.17	-.09	-.01	.10
Thất đức	Immoral	-.01	.03	-.39	.14	.08	-.05	.05	.21
Tồi tệ	Terrible	-.07	-.27	-.38	.02	-.17	-.03	-.03	-.11
Vô ý thức	Lacking self-awareness	-.14	-.18	-.38	-.19	-.17	-.02	.01	-.09
Hỗn láo	Insolent	-.14	-.06	-.38	-.15	-.10	.09	-.01	-.09
Khinh người	Contemptuous	-.17	-.08	-.37	.10	-.09	-.12	.01	-.30
Giả tạo	Pretending	-.12	-.19	-.36	.04	-.10	-.08	-.06	-.36
Vô lương tâm	Unscrupulous	-.08	-.06	-.36	-.05	-.16	-.03	-.03	.13
Đạo đức giả	Hypocritical	-.15	.07	-.36	.07	-.02	-.16	-.02	.11
Vô liêm sỉ	Immodest	.07	.14	-.36	.08	.03	-.08	.06	-.31
Nhẫn tâm	Hard-hearted	-.17	-.13	-.35	.03	-.17	-.05	-.01	-.09

Bất tín	Unreliable	0	-.12	-.35	.02	-.02	-.14	.07	-.11
Thâm hiểm	Conniving	-.11	.01	-.35	.04	-.31	-.07	-.05	-.12
Trợ trêu	Brazen	.04	.04	-.35	0	-.27	-.06	0	-.03
Xác xược	Impudent	-.10	.08	-.35	-.15	-.26	-.08	-.05	.15
Thất nghĩa	Ungrateful	.07	.09	-.35	.03	-.23	-.09	.01	.21
Vô tình cảm	Unemotional	-.18	-.05	-.34	.03	-.04	.06	-.10	.14
Thù đoạn	Manipulative	-.13	.02	-.33	-.04	-.33	-.07	-.06	-.14
Thất hiếu	Impious	-.03	.07	-.33	-.01	.10	-.10	-.05	.29
Vô trách nhiệm	Irresponsible	-.04	-.16	-.32	-.15	-.27	-.03	-.02	-.03
Bội bạc	Unthankful	-.03	.01	-.32	0	-.25	-.13	-.01	-.05
Xu nịnh	Adulatory	.05	.07	-.32	-.08	-.32	-.15	-.03	-.15
Ngăn nắp	Organized	.15	.03	-.03	.59	.02	.02	.04	.10
Gọn gàng	Neat	.16	-.05	.04	.55	.17	-.03	.02	.08
Cẩn thận	Careful	.19	.05	.04	.52	.09	.14	-.04	.10
Chăm học	Studious	.27	.16	.04	.49	.17	-.01	.10	.03
Cẩn trọng	Cautious	.19	.06	-.01	.43	.03	.17	-.08	.07
Nề nếp	Orderly	.14	.09	.01	.43	.21	-.03	-.07	.21
Kỷ tính	Precise	-.01	-.01	.15	.42	.02	.04	-.15	-.04
Gọn ghẽ	Neat/tidy	.05	-.01	-.18	.41	.40	-.07	-.05	.01
Nết na	Well-mannered	.23	-.04	-.02	.40	.18	-.14	.14	.10
Tuơng tât	Kempt	.14	-.02	.20	.39	-.01	.04	0	.08
Chăm làm	Hard-working	.15	.18	-.15	.38	.27	.10	-.05	.15
Chuyên cần	Assiduous	.23	.05	.15	.38	.06	-.02	.08	.12
Tỉ mỉ	Meticulous	.18	.13	.16	.38	-.03	.05	-.04	.09
Quán xuyến	Proficient	.12	.07	.20	.37	.08	.11	.08	.03
Nghiêm khắc	Stern	-.11	-.02	.10	.36	.04	.23	-.10	.09
Chu đáo	Conscientious	.19	.09	.16	.36	-.06	.01	-.04	.09
Kiên nhẫn	Patient	.26	.14	-.04	.35	.09	.30	-.06	.08
Ý tứ	Mannerly	.16	.10	.16	.35	.26	-.07	-.08	.07
Kỷ cương	Disciplined	.13	.09	.11	.34	.16	.25	-.04	-.03
Thận trọng	Prudent	.17	.03	.17	.34	.19	.15	-.04	-.06
Kiên định	Steadfast	.13	.16	.15	.33	.11	.34	-.01	.09
Cần mẫn	Industrious	.17	.17	-.08	.32	.21	.15	-.14	.14
Kiên trì	Persistent	.15	.25	-.06	.32	.17	.31	-.14	.22
Bền chí	Persevering	.15	.27	.04	.32	.15	.36	-.13	.14
Quy tắc	Principled	.02	.20	.07	.32	.17	.11	-.23	.15
Tự lập	Independent	-.03	.10	.10	.31	.07	.31	.04	.12
Khéo léo	Ingenious	.17	.23	.04	.30	.04	.06	.14	.05
Cần kiệm	Thrifty	.20	.04	.17	.30	-.1	.13	-.25	.19
Cẩu thả	Negligent	-.11	-.08	.06	-.52	-.05	-.07	.09	.05
Lười học	Procrastinating	-.2	-.27	.07	-.41	.02	-.10	0	-.04
Lười nhác	Indolent	-.11	-.24	.13	-.41	-.15	-.15	-.03	-.04
Lười biếng	Lazy	-.23	-.21	.14	-.41	-.02	-.14	-.01	-.09
Vô nguyên tắc	Unprincipled	-.10	-.15	-.26	-.37	-.03	.04	-.03	-.08
Hời hợt	Superficial	-.02	-.20	.08	-.36	-.30	-.07	-.01	.11
Bộp chộp	Impetuous	-.18	-.26	-.07	-.34	-.08	-.11	.09	-.11
Bê bối	Sloppy	-.08	-.14	-.10	-.33	-.12	.05	-.01	-.10
Lơ đãng	Absent-minded	0	-.26	.07	-.33	-.19	-.08	0	-.08
Lo lắng	Anxious	0	-.26	.07	-.33	-.19	-.08	0	-.08
Đuềnh đoàng	Imprudent	-.15	-.13	.09	-.32	.01	-.13	.01	.13
Phung phí	Extravagant	-.08	-.17	.12	-.32	-.11	-.10	.21	-.22
Tham ăn	Gluttonous	-.11	-.03	-.01	-.31	-.13	-.07	-.05	-.15
Tào lao	Nonsense	-.20	-.21	.01	-.31	-.03	-.12	.09	-.13
Tùy tiện	Sloppy	0	-.11	-.16	-.30	-.31	0	-.01	-.04
Háo thắng	Competitive	-.21	.05	.15	-.30	-.09	.09	.02	-.12
Tức thời	Adaptive	-.07	-.01	.17	-.30	-.05	-.06	-.05	-.05
Chân chính	Authentic	.15	.06	-.08	.04	.55	.09	-.02	-.04
Ngay thật	Frank	.12	-.07	.02	.11	.45	.07	-.02	.02
Đáng tin	Credible	.12	-.01	.11	-.02	.44	.08	.01	.01
Trung trực	Forthright	.16	.05	.09	.04	.40	.10	-.05	.06
Đàm đang	Adroit	-.01	-.16	-.20	.15	.40	-.02	.14	-.47
Phóng khoáng	Open-minded	.06	.04	-.12	-.11	.38	.07	.17	-.03
Hòa hợp	Congenial	.13	.10	-.02	.04	.38	.07	.22	-.01
Đồng cảm	Compassionate	.17	-.08	.12	.09	.38	-.13	.03	-.02
Công chính	Chaste	.15	.15	-.05	.17	.38	.09	-.09	.06
Hào tâm	Kindhearted	.20	-.01	.19	.01	.37	.03	.10	.08
Thành thực	Adept	.10	.28	-.19	.15	.36	.10	-.03	.10
Hòa đồng	Sociable, extroverted	.16	.10	-.04	-.02	.35	.06	.34	-.05
Thực tình	Genuine	.06	-.06	.04	.02	.35	.02	-.03	.04

Thành thực	Sincere	.22	.02	.12	.14	.35	.05	.03	.17
Trung thành	Faithful	.22	.05	.12	.05	.34	.16	-.03	.15
Quang minh	Just and open-minded	.20	.18	.05	.11	.34	.21	-.03	.01
Nghiêm nghị	Solemn	-.05	.07	0	.29	.34	.12	-.23	-.02
Thiện chí	Well-intentioned	.21	.09	.10	-.05	.31	.01	.03	-.04
Kiên cường	Tenacious	-.03	.14	0	.11	.31	.37	-.09	.12
Chí hướng	Purposeful	.01	.27	.01	.17	.31	.24	-.04	-.04
Lễ độ	Mannerly	.20	.04	.03	.08	.30	-.05	0	.07
Son sắt	Faithful	.08	.05	.09	.15	.30	-.05	-.10	-.02
Nhẫn nại	Tolerant	.20	.13	-.11	.23	.30	.14	-.16	.16
Lãng nhách	Nonsensical	-.14	.10	-.12	-.24	-.33	-.14	.04	-.06
Mưu lợi	Self-profitting	-.04	.15	-.09	-.04	-.33	.05	-.15	-.22
Ỡ lại	Dependent	0	-.20	.02	-.24	-.32	-.19	-.10	-.06
Giả bộ	Fake	-.02	-.04	-.05	-.14	-.32	-.07	-.11	-.17
Tham quyền	Power-loving	-.03	.01	-.04	-.08	-.32	-.11	-.14	-.29
Lừa dối	Deceitful	-.07	-.09	-.19	-.12	-.31	-.09	-.06	-.06
Giả dối	Dishonest	-.05	.06	-.23	-.06	-.31	-.21	.03	.10
Vô duyên	Charmless	-.07	-.03	-.10	-.18	-.30	-.06	-.09	.15
Can đảm	Courageous	.03	.21	.08	.09	.10	.48	.09	.13
Anh dũng	Fortitude	.18	.18	-.10	0	.22	.43	-.02	0
Bạo gan	Audacious	-.08	.15	.07	-.06	-.09	.41	.04	.06
Vững lòng	Steadfast	.14	.18	.02	.29	.16	.41	-.05	.12
Mạo hiểm	Venturous	-.22	.10	.03	-.20	.01	.40	.02	.04
Quyết chí	Resolute	.18	.23	.14	.25	.04	.40	-.03	.15
Mạnh mẽ	Vigorous	-.04	.25	.06	.11	.06	.40	.22	.10
Hào hiệp	Magnanimous	.24	.11	0	-.06	.08	.40	.09	.03
Vững vàng	Steady	.22	.14	.09	.24	.13	.40	.02	.09
Vững tâm	Unwavering	.11	.11	.12	.25	.07	.39	.02	-.02
Cương quyết	Resolute	.03	.14	.14	.18	.14	.39	.01	.08
Chí khí	Strong-willed	.17	.25	.10	-.06	.05	.38	-.03	.17
Bình tĩnh	Calm	.25	.14	.03	.16	.08	.38	0	.07
Nghĩa khí	Gallant	.09	.22	.12	-.14	.10	.38	-.09	.10
Phiêu lưu	Adventurous	.04	.11	.22	-.16	-.18	.36	.02	.14
Mạnh bạo	Bold	-.06	.16	0	-.07	-.03	.35	.06	-.04
Kiên quyết	Steadfast	-.02	.06	.10	.21	.01	.35	.07	.12
Quyết tâm	Determined	.17	.17	.11	.27	.11	.35	.08	.22
Cứng cỏi	Rigid	-.09	.14	.12	.14	.09	.33	.07	.04
Hiên ngang	Undaunted	-.01	.23	.03	-.10	.12	.32	-.05	-.02
Cương trực	Upright	.18	.11	.21	.23	.01	.31	.01	.11
Quả quyết	Decisive	-.07	.14	.10	.19	.02	.31	.06	.09
Điềm tĩnh	Imperturbable	.25	.06	.17	.19	.11	.31	-.27	.14
Quyết lòng	Driven	.14	.08	.12	.19	.15	.31	.06	.11
Vững tin	Unflinching	.15	.13	0	.12	.18	.31	-.05	.05
Kiên chí	Strong-willed	.10	.27	-.07	.21	.23	.31	-.12	.17
Yếu đuối	Weak, feeble	.04	-.19	.07	-.03	-.08	-.51	-.03	.32
Nhút nhát	Timid	.12	-.27	.15	-.08	.02	-.44	-.21	.18
Sợ sệt	Scared	.12	-.18	.08	-.12	-.08	-.39	-.08	.22
Tự ái	Susceptible	-.11	-.10	.19	-.07	-.02	-.39	-.10	.10
Ủy mị	Maudlin	.13	-.02	-.01	.09	-.01	-.36	-.02	.24
Thẹn thùng	Bashful	.13	-.27	.07	.12	.05	-.36	-.06	.10
Phụ thuộc	Dependent	.08	-.12	.04	-.23	-.13	-.34	-.10	.08
Sợ hãi	Fearful	.04	-.27	.10	-.06	-.08	-.33	-.07	.05
E thẹn	Shy	.12	-.28	.13	.16	0	-.32	-.07	.07
Ganh tị	Envious	-.23	-.04	.06	-.12	-.11	-.31	-.03	-.10
Ăn diện	Fashionable	-.06	.18	.09	-.15	-.01	-.31	.24	-.16
Dựa dẫm	Dependent	.09	-.07	.09	-.26	-.25	-.30	-.06	.12
Vui tính	Genial, affable	.07	.08	.17	0	.04	.03	.48	.07
Hay nói	Talkative	-.23	.04	.03	-.10	.01	-.15	.47	.01
Năng động	Dynamic	.03	.25	.14	.14	.02	.15	.47	-.03
Hoạt bát	Vivacious	.02	.29	.12	.08	-.09	.12	.46	-.03
Vui tươi	Merry	.02	.03	-.09	-.05	.24	-.05	.45	-.10
Năng nổ	Active	.01	.22	.07	.12	.01	.17	.45	.09
Hài hước	Humorous	-.14	.13	-.11	-.12	.09	-.01	.43	-.01
Yêu đời	Life-loving	.26	.07	.17	.14	.04	.20	.43	.03
Vui vẻ	Cheerful	.09	.10	.14	-.11	-.05	-.03	.42	.18
Khôì hài	Funny	-.01	.13	.21	-.12	.01	.12	.41	-.01
Dí dỏm	Witty	-.15	.10	.04	-.15	.18	0	.38	-.03
Hiếu động	Active	-.11	.21	.02	-.09	.07	.10	.38	.10
Nhanh nháu	Brisk	-.04	.28	.19	.06	.03	.17	.37	.07

Niềm nở	Friendly	.22	.05	.23	.10	0	0	.33	.09
Lém lỉnh	Agile	-.17	.11	.14	-.14	-.06	.01	.32	.01
Vô tư	Carefree	.05	-.14	.03	-.19	.06	.10	.32	.06
Hiếu khách	Hospitable	.15	-.04	.22	.04	.01	.04	.30	.22
Trầm tĩnh	Placid	.09	-.11	0	.07	.24	.03	-.58	.01
Ít nói	Silent	.23	-.21	.02	.07	-.01	.07	-.56	.13
Trầm tĩnh	Self-composed	.16	-.27	.10	.14	-.04	.02	-.54	.05
Trầm lặng	Quiet	.08	-.27	.19	.07	-.10	-.01	-.50	.09
Khép kín	Closed	-.05	-.16	.10	.10	-.05	-.16	-.45	.18
Trầm tư	Contemplative	.05	-.28	.29	.14	.02	-.08	-.37	.03
Cô lập	Reclusive	-.09	-.21	-.08	-.05	-.20	-.08	-.32	.02
Làm lì	Taciturn	-.26	-.15	.08	-.10	-.18	-.04	-.32	.07
Hóm hỉnh1	Witty	.05	.22	.15	-.13	-.25	0	.18	.43
Bình dị	Ordinary & simple	.16	-.10	.10	.10	-.12	.10	-.16	.40
Giản dị	Modest	.15	-.06	.01	.19	.19	.11	-.16	.37
Đơn sơ	Plain	.16	-.09	-.03	.08	-.01	.15	-.20	.36
Đơn giản	Simple	.23	-.11	.20	.18	-.02	.13	-.03	.35
Phô trương	Pompous	-.04	-.11	-.14	-.12	-.03	.02	.10	-.44
Khoe khoang	Boasting	-.01	.01	-.05	-.23	-.04	-.12	.01	-.41
Tự cao	Self-important	-.09	0	-.02	-.13	-.11	-.03	-.02	-.39
Toan tính	Contriving	-.09	.06	-.04	-.01	-.10	.04	-.14	-.38
Hiếu danh	Fame-seeking	-.04	.10	-.01	.01	.02	-.03	.07	-.38
Ba hoa	Loquacious	0	-.05	-.16	-.14	-.13	-.09	.09	-.38
Tính toán	Calculating	-.10	.07	.11	.04	-.17	-.10	-.16	-.37
Huênh hoang	Boastful	-.06	-.09	-.24	-.14	-.05	.03	.03	-.37
Thâm thúy	Profound	-.02	.07	.01	.04	.10	.09	-.01	-.35
Hiếu thắng	Driven	-.12	-.02	.11	-.20	.05	.01	.07	-.35
Học đòi	Vying	0	-.05	-.03	-.14	-.11	-.16	.09	-.35
Trục lợi	Mercenary	0	.06	-.21	.06	-.12	-.05	-.03	-.34
Khoa trương	Pompous	.01	.07	-.13	-.27	-.04	-.12	.02	-.34
Hợm hĩnh2	Absurb	-.12	-.20	-.06	0	.21	.04	.28	-.34
Tham danh	Fame-loving	-.13	.11	-.03	-.16	-.11	-.16	-.14	-.33
Cầu kỳ	Gaudy	-.13	-.01	.06	0	.08	-.07	.10	-.33
Đua đòi	Snobbish	-.05	-.04	.03	-.20	-.20	-.14	.17	-.33
Đa mưu	Artful	-.16	.21	.01	-.11	-.03	.14	-.06	-.32
Lợi dụng	Exploitative	-.08	-.03	-.25	.02	-.26	-.09	-.04	-.30
Tham tiền	Money-loving	-.13	.09	.04	-.22	-.15	-.12	-.02	-.30

Note: Loadings of |0.30| and higher are in bold