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Edited by

Ivan Mervielde
Ian Deary
Filip De Fruyt
Fritz Ostendorf



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3 Taxonomy and structure of Czech personality-relevant verbs

Martina Hřebíčková¹, Fritz Ostendorf², Lída Osecká¹, and Ivo Čermák¹

¹*Institute of Psychology, Academy of Sciences of the Czech Republic*

²*University of Bielefeld, Germany*

In recent years a lot of research activity has been directed towards the development of taxonomies of personality-descriptive terms (Goldberg, 1981; Hofstee, 1984; John, Goldberg, & Angleitner, 1984). Various psychologists have turned to natural-language dictionaries as a source of attributes for a scientific taxonomy. The usual starting point for personality taxonomies have been comprehensive lists of personality terms compiled from dictionaries. The rationale underlying such lexical approaches is that the most salient and socially relevant individual differences in people's lives will eventually become encoded into their language (Goldberg, 1981; John, Angleitner, & Ostendorf, 1988).

However, until recently, most taxonomies were based on analyses of personality descriptive adjectives. The reason probably rests on the assumption that adjectives describe *stable* personality characteristics, thus doing a better job in the assessment of personality traits. Verbs, on the other hand, which are typically used to describe specific patterns of behaviour in specific situations, are probably more adequate for the description of states, for example, observable activities (e.g. *to talk*) and experiential states (e.g. *to hate*). However, in the past, verbs have received less research attention.

The present article reports the results of a project on Czech personality-descriptive verbs. Its aim is to describe: (1) the construction of a comprehensive list of personality-relevant verbs and its reduction by semantic criteria (Study I), (2) the development of a taxonomy of Czech verbs (Study II), and (3) the analysis of the factor structure of Czech personality-relevant verbs (Study III).

ADVANTAGES OF USING VERBS IN PERSONALITY DESCRIPTION

According to De Raad (1986), adjectives are more evaluative, more abstract, more ambivalent and broader in meaning than verbs. Hřebíčková, Řehulková, Osecká and Blatný (1992) attempted to verify these assumptions empirically. They compared the meaning of interpersonal traits (adjectives) and behaviours

(verbs). The selection of interpersonal traits and behaviours was based on Leary's circumplex model (Leary, 1957). Experts identified an appropriate adjective and a verb for each of the eight interpersonal dimensions of Leary's model (e.g., Dominance: *responsible, leads*; Responsibility: *tactful, helps*; Affiliation: *kind, co-operates*, etc.). The interpersonal adjectives and verbs provided the stimulus material for self- and peer ratings on 25 Likert scales.

The rating list comprised scales measuring Osgood's dimensions of affective meaning (1957; *Power, Activity, Evaluation* - 9 scales), the temperament factors proposed by Eysenck (1968; *Extraversion* - 6 scales, *Neuroticism* - 6 scales) and 4 additional scales (e.g., *simple-complex*). It was found that the trait adjectives were evaluated more positive than the verbs and that the meaning of the verbs was more neutral.

The findings were thus in agreement with De Raad's assumptions. In comparison with personality adjectives, verbs were found to be less evaluative and more descriptive of behaviour. The more distinctive descriptive meaning of personality verbs may be an advantage with regard to their utility in personality assessment and personality test construction.

The development of the Five-Factor Personality Inventory (FFPI; Hendriks, 1997; Hendriks, Hofstee, & De Raad, 1993) was based on similar assumptions. Hendriks et al (1997) consistently avoided the use of dispositional adjectives and type nouns. It was found that questionnaire items describing specific, observable behaviours were more easily evaluated by judges than expressions containing more abstract adjectives.

Although the proponents of the trait approach mainly analysed personality descriptive adjectives, there is also literature focussing at personality descriptive verbs. For example, Osgood (1970) studied interpersonal verbs and behaviours, and Benjamin (1974) and De Raad (1986) conducted structural analyses of social behaviour. The first systematic and comprehensive taxonomy of personality-descriptive verbs was provided by De Raad (1992) and De Raad, Mulder, Kloosterman, and Hofstee (1988) for the Dutch language.

TAXONOMIES OF PERSONALITY DESCRIPTIVE VERBS

Based on conceptual and linguistic criteria, Semin and Fiedler (1988) constructed a four-level classification distinguishing between personality-relevant verbs and adjectives. Verbs were sorted into three major domains: "Descriptive action verbs", "Interpretative action verbs" and "State verbs". "Descriptive action verbs" refer to a neutral description of an action. There is concrete reference to a behaviour that allows the behaviours classification and its discrimination from

other behaviours. The action has a clear beginning and end. Verbs belonging to this category are, for example, *to call*, *to kiss*, *to talk*, or *to cry*. In contrast, the meaning of verbs from the second category proposed by Semin and Fiedler (1988) not only covers a mere description of a specific behaviour but also its interpretation (e.g. *to help*, *to cheat*, *to cheer*, *to patronise*). These verbs are "Interpretative action verbs" referring to rather general classes of behaviour. The beginning and the end of the action is defined and the verbs have positive and negative semantic connotations. The third type of verbs (*to like*, *to hate*, *to trust*, *to risk*) are referred to as "State verbs". The function of these verbs is qualitatively different from that of the first two examples. In this case verbs refer to mental or emotional states. They have no clear definition of a beginning and an end of an action. They are in fact abstract statements that usually cannot be verified objectively by an observer.

The results from an experimental study (Semin & Fiedler, 1988) provided general support for the assumed four-level linguistic classification. The four linguistic categories are organised differently along a continuum of concreteness-abstractness (from descriptive action verbs to adjectives). The advantage of this taxonomy lies in the fact that its classes discriminate between verbs that describe actions, verbs that interpret actions, and verbs that refer to mental or emotional states. "Interpretative action verbs" are more situation-specific, whereas "State verbs" are more person-specific. For example, from the sentence "*Bob helps Mike*" containing an "Interpretative action verb" we can infer that Bob helps other people as well and that Mike is helped by other people. However, the likelihood that the sentences containing a "State verb" will be generalised to other persons is less (e.g. *Ted likes Paul*). On the other hand, sentences including "State verbs" allow for more generalisation over time - *to like* refers to a more enduring state than *to help*.

In Study II of the present paper, Semin and Fiedler's classification system was used to reduce the comprehensive list of Czech personality-relevant verbs to a smaller sample of prototypical members of the three categories of verbs. Furthermore, to examine the structure of the Czech personality-relevant verbs, we selected a representative set of prototypical verbs from the two categories "Interpretative action verbs" and "State verbs" and used them as variables in a self-rating task.

PREVIOUS STUDIES ON THE FACTOR STRUCTURE OF PERSONALITY DESCRIPTIVE VERBS

De Raad, Mulder, Kloosterman, and Hofstee (1988) provided the first empirical analyses of a comprehensive set of personality-descriptive verbs from the Dutch language. Dutch personality-relevant verbs were selected from a Dutch-English

dictionary. No definition of personality was used in the first step of the project. Quite similar to our present studies, the authors used a three-point rating scale to indicate if the verb was personality-relevant, if its personality relevance was doubtful, or if it was definitely personality irrelevant. If at least one of the authors identified the verb as personality-relevant or expressed doubts about its personality relevance, the verb was retained in the final list of 1,557 verbs.

In a next step, De Raad et al. (1988) reduced the list to 543 verbs. In the following phase of the project, the Dutch team examined the structure of the personality-relevant verbs and the relationship of this structure to the Big-Five personality factors found in the domain of Dutch adjectives. Special attention was paid to possible new dimensions that may have emerged instead of or beyond the Big Five adjective factors. 100 couples of students provided self-ratings on a representative list of 747 personality-relevant adjectives as well as self- and peer-ratings on a representative list of 543 verbs. The task of the subjects was to assess the extent to which they had these characteristics or the extent to which these behaviours were typical for them in comparison with other people. In this first Dutch study, De Raad et al. (1988) reported 10 Varimax rotated verb factors. For the self-ratings, these were: *Malignity, Support, Antagonism, Verbal aggression, Doubt, Perseverance, Pretence, Suppression, Permissiveness, Account*; whereas for the peer-ratings, they were labelled: *Malignity, Support, Antagonism, Perseverance, Suppression, Verbal aggression, Idolatry, Physical Aggression, Venture, Victimisation*. The structure obtained through the self-rating analysis was confirmed by the analysis of the peer-ratings.

In a further study that examined the replicability of the Big-Five personality factors in three word-classes (verbs, adjectives and nouns), De Raad (1992) reanalysed the verb data and obtained a robust solution with two verb factors labelled *Agreeableness* and *Emotional Stability*. The *Agreeableness* factor covered characteristics of prosocial and antisocial behaviours. One side of the dimension was loaded by verbs expressing support, co-operation, and compliance, while the opposite pole of the factor was marked by verbs expressing verbal aggression and obstructive behaviour. The second factor, *Emotional Stability*, included characteristics of decisive, dominant, rebellious, and antagonistic behaviours on one pole, and of indecisive, submissive and fleeing behaviour on the other pole. In the three factor solution, the first factor splitted into two factors labelled *Support* and *Agreeableness*. In the four-factor solution, a version of the *Agreeableness* factor emphasising the opposite pole of the Big-Five Factor II appeared. This factor was labelled *Verbal Aggression*. Only in the five-factor solution a factor appeared which added new meaning to the dimensions already found within the two-factor solution. This factor was very close to the traditional *Conscientiousness* factor.

Similar to the findings from the Dutch taxonomy, a study by Hřebíčková (1997) confirmed the replicability of the Big-Five personality factors from the Czech personality lexicon. In her study, Hřebíčková (1997) examined the factor structure of a representative set of Czech personality descriptive adjectives. Thus, the general aims of our taxonomy research program are similar to those of the Dutch taxonomy project. In the context of the present study, we examined whether the Big-Five factors can be identified in another word domain, namely the domain of Czech personality-relevant verbs. Furthermore, we expected that the verb structure would add new meaningful dimensions to the adjective space described by the Big Five. More specifically, in agreement with the Dutch results, we expected to find verb factors similar to the Big-Five Factors Agreeableness and Emotional Stability.

A NOTE ABOUT A CZECH VERB

According to linguists (Hausenblas & Kuchař, 1974), the verb has a central position in a Czech sentence. The forms of nouns express two grammatical categories - case and number. Since there are seven cases and two numbers in Czech, a noun can have as many as 14 different forms. Adjectives, though, have a larger number of flexible forms than nouns because they can express all three genders. However, the largest number of flexible forms can be found in Czech verbs. It is because a verb can express twice as many grammatical meanings than a noun, an adjective and a pronoun: person, number, tense, mood, and verbal aspect. The last grammatical category - aspect - is typical for Czech and Slavic verbs, while other languages, such as Germanic ones, lack this verbal category. Aspect distinguishes between perfectivity and imperfectivity of an action. A perfective verb expresses that the action has been completed or will be completed. Such an action is closed, finished, done. The imperfective verbal form takes no position regarding the completion of an action. A count of all the basic grammatical categories that a Czech verb can take, shows that any verb can take as many as 400 forms. The number of forms, however, is not sufficient to facilitate expression; it is only a prominent characteristic of a language structure. Languages that do not have such a rich system of verbal forms have usually developed other means of expression, namely syntactic and lexical ones.

Our lexical study is the first attempt to select all personality-relevant verbs from the Czech lexicon. The resulting comprehensive and representative list of Czech personality-relevant verbs can serve as a tool for the development of a taxonomy, dimensional analyses, and the construction of personality assessment instruments. Such a taxonomy provides a common framework for research guided by different theoretical orientations and could guide the selection of variables for research (John, Angleitner & Ostendorf 1988).

In the next section, we report the first results of the Czech taxonomy of personality-descriptive verbs. Study 1 reports the construction of a representative and exhaustive list of verbs and the reduction of this list by semantic and syntactic criteria. Study 2 describes our first steps towards the development of a taxonomy of personality-relevant verbs, and Study 3 finally reports the results of a factor analysis of a representative set of Czech personality-relevant verbs.

STUDY 1: THE CONSTRUCTION OF A LIST OF CZECH PERSONALITY-RELEVANT VERBS

Method and results

Our first aim was to construct a representative and exhaustive list of personality-descriptive verbs. From the eight-volume Dictionary of Standard Czech (Academia, 1989), containing about 119,000 separate entries, we extracted all those verbs that can be used "to distinguish the behaviour of one human being from that of another" (Allport & Odbert, 1936). We used a specific criterion sentence to distinguish personality-descriptive verbs from other terms of the personality lexicon. All verbs that fitted into the sentence "If someone (verb) more often than others then that behaviour shows his/her personality (e.g. *to hide*)" were selected as personality-relevant. The personality-relevant verbs were extracted from the dictionary by the first author. Another psychologist extracted personality-relevant verbs from 48 dictionary pages selected at random. The agreement between the two judges was estimated by the Phi-coefficient (.59). 2,374 personality-relevant verbs (7% of all verbs) were found in the dictionary. Because the Dictionary of the Czech Language does not provide the number of words belonging to individual word categories, the number of verbs was estimated from a representative sample of 112 dictionary pages selected at random. According to our estimates there are 32,661 verbs in the Czech dictionary.

Reduction of the list by semantic and syntactic criteria

Next, we excluded all verbs from the list that were marked in the dictionary as archaic, bookish, rarely used, dialectal, or poetical. These exclusion criteria reduced the list by 222 verbs. Furthermore, the imperfective verbs were left in the list while the perfective verbs (175) were excluded. The reason for our preference for imperfective verbs was the assumption that, unlike the perfective form, the imperfective form expresses repeated behaviour where greater stability can be assumed. Finally, verbs with prefixes were excluded in cases where these verbs had the same meaning as its basic form. These were verbs with the prefix *o*, *po*, *pro*, *pře*, *roz*, *u*, *vy*, *za*, or *z* (447 verbs). Prefixed verbs usually express a short action which is well defined in terms of time. When all these criteria were

applied, the list was reduced by 844 verbs. The final version of the list of personality-relevant verbs contained 1,530 items.

However, a taxonomy of personality-relevant verbs must provide more than an alphabetical listing. A useful taxonomy should provide a systematic framework for distinguishing, ordering, and naming individual differences in people's behaviour and experience (John, 1989). Therefore, our second study reports on the classification of personality-relevant verbs into three categories, i.e. "Descriptive action verbs", "Interpretative action verbs", and "State verbs".

STUDY 2: DEVELOPMENT OF A TAXONOMY OF CZECH PERSONALITY-RELEVANT VERBS

Method

Subjects

A total of 10 independent judges (5 males, 5 females, $M = 39$ years) were recruited for the classification task.

Materials and procedure

The judges rated their familiarity with the meaning of each verb on a 3-step scale ranging from "1" (the meaning of the word is not clear enough for me to complete the subsequent ratings), "2" (the meaning of the word became clear to me only after giving it some thought), to "3" (the meaning of the word is fairly clear to me). If the meaning was too unclear to allow any further ratings, the judge moved on to the next verb. If the meaning was clear enough, the judge went on to rate the personality relevance of the verb, defined by the same question as in Study 1 ("If someone (verb) more often than others then that behaviour shows his/her personality"). If the judge responded "1" (impossible to imagine) the term was considered not clearly personality-relevant. After a "2" rating (unusual; possible to imagine only under certain conditions) or a "3" rating of personality relevance (easy to imagine a personality use) the judge had to move on to the classification task.

The category system we used to classify the Czech personality-relevant verbs distinguished among the three categories of verbs proposed by Semin and Fiedler (1988).

When a verb passed the "Clarity of meaning" and "Personality relevance" criteria, the judges classified the verb into one of the three categories, "Descriptive action verbs", "Interpretative action verbs", or "State verbs". The judges received booklets containing 1,530 verbs. To examine the stability of the

classifications we readministered a random set of 100 terms from the total list of 1,530 verbs after 12 months to the same judges.

Results

Clarity of meaning and personality relevance

The judges' mean ratings on the 3-step "Clarity of meaning" scale was 2.87 ($s = 2.86$); 76.4% of the verbs received a mean rating of 3.0, and 6.5% of all verbs were not classified because the judges considered its meaning too unclear. The Coefficient-Alpha reliability of the mean ratings was $\alpha = .90$. The twelve-month retest stability of the mean ratings, computed as a correlation across the 100 verbs administered twice was .87.

The mean rating on the "Personality relevance" scale was 2.30 ($s = 0.44$). The Coefficient Alpha reliability of the "Personality relevance" ratings was $\alpha = .78$ and the twelve-month stability of the mean ratings (across 100 verbs) was .88.

Reliability of the category system

To obtain a measure of the degree to which a verb fitted in a particular taxonomic category, we computed a prototypicality score reflecting the number of judges who classified the verb as belonging to that category. The reliability with which the judges used each of the categories was evaluated in terms of the internal consistency (Coefficient Alpha) and the stability of the prototype scores assessed at two different times for a subsample of 100 terms (after twelve months). The Coefficient-Alpha reliabilities were .83 for "Descriptive action verbs", .56 for "Interpretative action verbs", and .58 for "State verbs". The stability coefficients, computed across 100 verbs administered twice for each of the categories amounted to .84 for "Descriptive action verbs", .66 for "Interpretative action verbs", and .53 for "State verbs". The Alpha and the stability coefficient were higher for the category "Descriptive action verbs" than for the categories "Interpretative" and "State verbs". This finding seems to support the assumption that verbs from the latter categories in fact describe more abstract classes of behavioural acts and internal conditions. A reliable classification of verbs belonging to these classes may be more difficult to achieve because the verbs refer to personality characteristics that are more difficult to observe. The most observable category in the taxonomy - a description of neutral action ("Descriptive action verbs") - elicited the highest consensus.

Prototypes for the categories

A verb that can be considered as a prototypical example of a category should be classified into a given category by the majority of the judges (that is, by 6 or more

judges). Using this criterion, we found that 578 of the 1,530 verbs (37,7%) could be considered as prototypical members of one of the three verb classes.

The largest category, accounting for 25% of the total pool, was “Interpretative action verbs”, followed by “Descriptive action verbs” with 8%, and “State verbs” with 4%. The relatively small number of verbs included in the category “Descriptive action verbs” was probably influenced by the method used to select personality-relevant verbs from the dictionary. Verbs expressing behaviour common to all individuals (e.g. *to work, to sleep, to breath*), which are usually neutral descriptions of action, were not included in the initial list. The relatively small number of terms classified as “State verbs” might be due to the fact that there are actually fewer verbs of this kind in the Czech language. Alternatively, the low frequency of “State verbs” might indicate that the judges, whenever they were uncertain in their classification of “State” or “Interpretative” verbs, favoured the category “Interpretative action verbs”. For this reason we selected prototypical verbs from both categories for our further analyses. On the other hand, we excluded the prototypical “Descriptive action verbs” from further analysis because of their small number and because all these terms referred to individual differences only in a small extent (e.g. *to groan*). Only those verbs that were assigned by the majority of the judges to the categories of “Interpretative” and “State” verbs were included in the final list of 289 personality-descriptive verbs.

STUDY 3: THE STRUCTURE OF CZECH PERSONALITY-RELEVANT VERBS

So far, the initial list of more than thousand personality-relevant verbs was reduced to several hundred “State” and “Descriptive action verbs”. The purpose of Study 3 was to examine the major dimensions of personality description that would result from a factor analysis of the reduced set of 289 verbs in a sample of self reports.

Method

Subjects

473 participants (142 males, 307 females, 24 participants did not report gender) participated in this study. They ranged in age from 14 years to 60 years with an average of $M = 17.29$ years and a standard deviation of $SD = 4.64$ years. 92% of the respondents were below 19 years of age.

Procedure

The 289 prototypical verbs of the reduced list were used as variables in a self-rating task. Prior to analysis, 24 verbs were eliminated from the data set because

they were not known by the majority of the participants. Furthermore, the responses of each participant were ipsatised. Principal component analyses with Varimax rotation were performed on the matrix of 473 subjects by 265 personality descriptors for solutions with two to six factors.

Results

For reason of space limitation we only present short descriptions of the two to six factor solutions¹. In Table 1, the four-factor solution is represented by the 22 verbs that showed the highest loadings on the four factors ($> .30$).

Both factors of the two-factor structure were bipolar. The first factor covered affiliant, nurturant and emphatic behaviour on the positive pole (e.g., *to love, to associate with a person (a p.), to have compassion on a p., to imagine oneself in the position of somebody, to soothe, to care about, to encourage a p.*) which was supplemented by two facets: Self-Reflection (*to contemplate, to ponder, to meditate, to fall in reverie*) and Positive Experiencing (*to become enthusiastic, to hope*). The negative pole of the first factor was defined by dominant, hostile or even aggressive behaviour. This pole covered particular verbs expressing aggression (*to make fun of a p., to oppress, to hate, to betray*). The meaning of this pole also included another facet - Irresponsible Behaviour (*to slack about*). The second factor comprised verbs expressing the experience of anxiety, uncertainty, negative emotions, and submission (*to be afraid, to be in despair, to get depressed, to bow to a p., to hesitate, to be ashamed*) on its positive pole. The negative pole was defined by characteristics that seem to be related to the construct of Sensation-Seeking (Zuckerman, 1979): expressing showing off, excitement, and fun seeking.

In the three-factor solution, the content of the first two factors did not change in any substantial way. The third factor was interpreted as Negative Emotional Reaction and Direct Aggression. The opposite pole of this dimension was labelled Manipulative Submission (*to fawn, to inform against a p., to flatter, to ape a p., to sneak*).

In the four-factor solution, the meaning of the third factor changed a little. On one pole, verbs characterising negative emotional reactions and direct aggression remained but the opposite pole had a different meaning. It included verbs expressing empathy (*to associate with a p., to encourage, to imagine oneself in the position of sb.*). In the four-factor solution, these verbs had also significant loadings on the first factor. The fourth factor comprised verbs expressing carelessness (*to loiter, to do a thing badly, to shirk, to idle away, to lie*) on one

¹ Copies of the complete factor structures are available from the first author.

pole and verbs describing ambition (*to toil, to commit oneself, to aspire, to excel*) on the opposite pole (see Table 1).

Table 1. The four-factor structure of Czech personality descriptive verbs

<p>I+ HOSTILITY versus</p> <ul style="list-style-type: none"> .53 to oppress (utlačovat) .51 to toady to a p. (podlézat) .50 to make fun of a p. (posmívat se) .48 to betray (zradit) .47 to tyrannize over a p. (tyranizovat) .46 to take revenge (mstít se) .46 to endanger (ohrožovat) .44 to bully (šikanovat) .43 to force (násilnit) .43 to enslave (zotročit) .42 to laugh at a p. (vysmívat se) 	<p>I- AFFILIATION, SELF-REFLECTION</p> <ul style="list-style-type: none"> -.49 to have compassion on a p. (soucítit) -.49 to soothe (konejšit) -.48 to enjoy together (spoluprožívat) -.47 to console (chlácholit) -.46 to get sentimental (rozcitlivět se) -.43 to contemplate (rozjímat) -.42 to care about (pečovat) -.41 to brood over (zadumat se) -.40 to meditate (meditovat) -.39 to ponder (hloubat) -.38 to fall in a reverie (zasníť se)
<p>II+ ANXIETY, EMOTIONAL INSTABILITY versus</p> <ul style="list-style-type: none"> .62 to be shy (ostýchat se) .58 to be ashamed (stydět se) .58 to get frightened (plašit se) .55 to get anxious (zneklidňovat se) .55 to be in despair (zoufat si) .53 to get scrupulous (úzkostlivět) .53 to get sorrowful (smutnět) .51 to worry (strachovat se) .50 to be afraid (obávat se) .50 to get distressed (neklidnět) .49 to panic (panikařit) 	<p>II- SHOWING OFF, EXCITEMENT</p> <ul style="list-style-type: none"> -.52 to flirt (flirtovat) -.50 to loosen up (odvázat se) -.48 to seduce (svádět) -.45 to be out on a spree (flámovat) -.44 to dazzle (oslnit) -.44 to dally (laškovat) -.43 to joke (vtipkovat) -.42 to impress (zapůsobit) -.42 to be impertinent (dovolovat si) -.42 to provoke (provokovat) -.41 to enjoy oneself (bavit se)
<p>III+ NEGATIVE EMOTIONAL REACTION, DIRECT AGGRESSION versus</p> <ul style="list-style-type: none"> .44 to fire up (rozohňovat se) .40 to vituperate (láteřit) .39 to berate (hartusit) .39 to hold a grudge against somebody (nevražít) .38 to get angry (dohřát se) .38 to become enemies (znesvařovat se) .36 to contend (svářit se) .35 to get depressed (trudnomyslnět) .35 to vaunt (holedbat se) .34 to grumble (reptat) .33 to become vexed (roztrpčovat se) 	<p>III- EMPATHY, AFFILIATION</p> <ul style="list-style-type: none"> -.49 to imagine oneself in a position of sb. (vcit'ovat se) -.45 to associate with a p. (přátelit se) -.45 to confine to a p. (svěřovat se) -.42 to be frank (otevírat se) -.39 to tolerate (tolerovat) -.39 to inform against a p. (donášet) -.39 to love (milovat) -.38 to have a compassion on a p. (soucítit) -.37 to encourage a p. (povzbuzovat) -.36 to make a p. happy (obšťastňovat) -.35 to bow to a p. (podřizovat se)

IV+ CARELESSNESS versus	IV- AMBITION
.62 to loiter (lajdačit)	-.41 to persecute (perzekuovat)
.56 to do something carelessly (odflinfnout)	-.35 to moralise (moralizovat)
.55 to slack about (flákat se)	-.35 to excel (excelovat)
.53 to trapes (lajdat se)	-.35 to get conservative (konzervativnět)
.50 to do something in slovenly way (odfláknout)	-.33 to toil (dřít se)
.48 to be naughty (darebačit)	-.33 to become wise (zmoudřet)
.48 to shirk (ulejvat se)	-.32 to commit oneself (angažovat se)
.43 to idle away (lenošit)	-.30 to aspire (aspirovat)
.43 to get lazy (lenivět)	
.34 to get villanous (lotrovatět)	
.34 to lie (lhát)	

Note. The table reports the 11 verbs with the highest loadings ($\geq .30$) for each pole of the Varimax-rotated factors. $N = 473$ subjects.

The fifth factor of the five-factor solution was difficult to interpret. On one pole we found verbs that are used infrequently, come from other languages, or are archaic (*to mystify, to persecute, to aspire, to be a chronic complainer, to get depressed, to discriminate*). They express negative social behaviours and negative moods in the subjects' experiencing. On the opposite pole, there were only three verbs (*to flatter, to malign, to be jealous*).

In the six-factor solution, the meaning of the first five factors did not change. The five factors were complemented by a factor that was basically unipolar, and defined by verbs expressing meanness and showing off (*to get miserly, to grudge, to show off, to put on an appearance*).

DISCUSSION

In certain respects, the structure of personality descriptive verbs resembles the structure of adjectives found in the personality lexicon. In all the solutions reported, the first verb factor refers to characteristics that are summarised by the Big-Five Factor II (Agreeableness) in the domain of adjectives. The second verb factor includes characteristics of the Big-Five factors Neuroticism-Emotional Stability, Introversiion-Extraversiion, and the fourth verb factor of the four-factor solution seems to parallel Conscientiousness, the well known Big-Five Factor III. The most important difference between the structure of the two word classes seems to be that there is no verb factor covering the content of Big-Five Factor V, Intellect or Openness to Experience. It is difficult to evaluate how much variance the verb structure adds to the variance of interindividual differences already explained by the Big Five adjective factors. Our results seem to indicate an additional verb-dimension that comes close to Zuckerman's (1979) construct of

Sensation Seeking. However, because previous research has shown that Sensation Seeking is substantially related to the factors of the FFM (Angleitner & Ostendorf, 1994) it would be premature to assume that the verb Factor Showing Off really lies beyond the Big Five. Further research is needed to compare the verb and adjective factor structures and investigate the relationship between personality-relevant verbs and adjectives in the Czech language.

Although De Raad (1992) assumed that there are differences between West-European (Germanic) and Slavic languages, our analysis of the Czech personality-relevant lexicon does not confirm this assumption. Our previous studies confirmed that the Czech five-factor structure of personality-relevant adjectives (Hřebíčková, 1997) can be adequately interpreted in terms of the American or the German Big Five (Goldberg, 1990; Ostendorf, 1990).

Some similarities can also be found between the Czech and the Dutch verb structures. In both languages, the first factor of the two-factor solution comprises verbs referring to prosocial and antisocial behaviours, thus, both factors show a clear correspondence to the factor Agreeableness. However, there are also some differences between the second factors from the two-factor solutions of both languages. The Czech verbs that loaded on the positive pole of the second factor (*to get anxious, to be in despair, to get scrupulous*) express emotional instability, but the negative pole lacks verbs comprising emotional stability. Instead, we find verbs describing showing off and excitement. Although the corresponding Dutch factor is called Emotional Stability, it covers decisive, dominant, rebellious, and antagonistic behaviour on the one hand, and indecisive, submissive, and fleeing behaviour, on the other hand. Rather the Dutch verbs seem to refer to some of the prototypical features of the Factor Extraversion, as found in the English lexicon (see Goldberg, 1990). Furthermore, there are striking similarities between the three factor solutions of both languages. In both languages, the first verb factor corresponding to the Big-Five Factor Agreeableness splits into two factors. In a four-factor solution, a third facet of the domain of Agreeableness is added in Dutch, a result that parallels our findings in the domain of trait adjectives (see also Ostendorf, 1990). Characteristics related to work, that are core elements of Conscientiousness can be found in the four-factor solution in Czech. The Conscientiousness factor was also found in the five-factor solution for the Dutch verbs.

In summary, we have found strong relations between the domain of personality-descriptive verbs and the domain of personality-descriptive adjectives, the latter one being adequately described by the Big-Five personality factors. However, our inspection of the verb and adjective factors also indicated that the structures of both word classes were not fully equivalent. Further studies are needed to investigate the congruence between the structure of the Czech personality-descriptive adjectives and the Czech personality-descriptive verbs in more detail.

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