

The big five and well-being outcomes during the revolution in Romania

Peter t. Van den Berg

Tilburg University, The Netherlands

Horia. D. Pitariu

Babeș-Bolyai University, Romania

Abstract

This study investigated the relationships between the Big Five personality dimensions and well-being outcomes found in Western countries could be replicated in Romania during the revolution in 1990. The California Psychological Inventory, the Sixteen Personality Factor Questionnaire, and well-being measures were administered to 290 Romanian engineers. The Big Five personality dimensions were derived by means of factor analysis. The study confirmed that extraversion is negatively related to depression and somatic complaints, that neuroticism is negatively to job satisfaction and is positively related to depression and somatic complaints, and that conscientiousness is positively related to job satisfaction. Also, some unexpected relationships were found. It was concluded that most of the relationships between personality and well-being outcomes found in Western countries are confirmed in an East-European country and that differences in the relationships can be explained by societal factors of that time.

Key words: *personality, Big Five, occupational stress*

Rezumat

Studiul investighează relațiile dintre dimensiunile de personalitate ale Big Five și starea de bine declarată, investigate în țări vestice și replicate în România după 1990. Inventarul Psihologic California și 16PF, precum și măsurători ale stării de bine au fost aplicate la 290 de ingineri români. Dimensiunile de personalitate ale Big Five au fost derivate prin intermediul unei analize factoriale. Studiul a confirmat că extraversiunea este corelată negativ cu depresia și problemele somatice, că neuroticismul este corelat negativ cu satisfacția la locul de muncă și pozitiv cu depresia și problemele somatice, iar conștiinciozitatea corelează pozitiv cu satisfacția la locul de muncă. Au fost evidențiate și unele relații neașteptate.

În concluzie, majoritatea relațiilor dintre personalitate și starea de bine evidențiate în țările vestice s-au regăsit și în cercetarea est-europeană, iar diferențele obținute pot fi explicate prin prisma factorilor socio-economici ai momentului respectiv.

Cuvinte cheie: *personalitate, Big Five, stress, ocupațional*

Introduction

Following most models in work and organizational psychology, job stressors explain well-being outcomes. For example, Kahn (1970) developed a model in which the objective environment causes job stressors in the subjective environment, which, in turn, affect health. The effects are supposed to be moderated by personality traits and social support. And following Karasek's (1979) Job Strain Model, work pressure is highest in so-called high-strain jobs, which are characterized by high requirements and low decision latitude.

However, more and more studies have paid attention to the role of personality traits in the stress process (Spector & O'Connell, 1994). In these studies, personality was not

only considered to be moderating the relationships between job stressors and job strains, but also to be a factor directly affecting job strains. This so-called dispositional approach to job attitudes was strongly stimulated by Staw and Ross's (1985) study which showed that job satisfaction was stable over a five-year period, and was consistent across situations in which pay and occupational status changed. Arvey, Bouchard, Segal, and Abraham (1989) showed that job satisfaction could partly be explained by a genetic factor.

Many different personality traits have been used in stress research. Therefore, it is difficult to draw some general conclusions. However, with the emergence of the Big Five personality model (e.g., McCrae & Costa,

1987), a new system for classifying personality traits has become available. This model consists of the personality dimensions of extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience or intellect. Each of the dimensions consists of six or five facets or subdimensions (see, McCrae & Costa, 2003). By using the Big Five personality model, it is easier to draw hypotheses from previous research. The relationships between the Big Five personality dimensions have been studied more often (see below). Most of these studies have been done in Western, well-industrialized countries. However, one may question if these results can be generalized to other countries.

The Present Study

The aim of the present study was to investigate if the results on the relationships between the Five-Factor personality dimensions and well-being outcomes found in Western countries can be replicated in the East-European country of Romania. The data were collected in Romania in 1990. At that time, the East-European societies were rapidly changing from a communist system into a capitalist system. In this situation, there was an increased level of stress, which was the result of a strong social movement and the collapse of the economy. The beginning of what was called "the transition period" was very tough. The activities of existing companies were drastically reduced due to the destruction of the import-export system and to the uncertainty determined by the change from a socialistic society into a democratic one, which was not well-known yet. The situation grew to a surplus of work force, while many workers had nothing to do, because of a lack of materials and markets. Although there have been positive changes lately, the transition state persists. The consequence is a high stress level and, generally, psychosomatic illnesses and the increase of aggressive behavior can be observed (Pitariu, 1998; 2004).

On the basis of a literature search, the hypotheses on the relationships between the Big Five personality traits and well-being outcomes were formulated. As well-being outcomes we used job satisfaction, depression, and somatic complaints. These research-based hypotheses were tested in Romania, which has the advantage of enabling cross-cultural comparison. The other

relationships were investigated for explorative purposes.

Judge, Heller, and Mount (2002) showed in their meta-analysis that the Big Five personality trait of neuroticism is negatively related to job satisfaction, while extraversion and conscientiousness are positively related to job satisfaction. In a longitudinal study Staw, Bell, and Clausen (1986) found that the affective dimension of personality, which consisted of neuroticism and extraversion, predicted job satisfaction over a life span of fifty years. Also, Van den Berg and Feij (2003) found that high extraversion and low neuroticism predicted job satisfaction measured two years later. The relationships of extraversion and neuroticism with job satisfaction can be explained by the fact that neurotics tend to experience negative emotions and extraverts are more suited to have positive emotions (Clark & Watson, 1991; Watson & Clark, 1997). Accordingly, Connolly and Viswesvaran (2000) showed in their meta-analysis that negative affectivity and positive affectivity are related to job satisfaction (mean corrected r 's were $-.33$ and $.49$ respectively). Following these authors, the affective dispositions of negative and positive affectivity can be best compared to neuroticism and extraversion, respectively. Conscientiousness should be related to job satisfaction because it is related to job performance (Barrick & Mount, 1991) and thus leads to greater likelihood of obtaining satisfying work rewards. Therefore, we hypothesized that extraversion is positively related to job satisfaction (Hypothesis 1), and that neuroticism is negatively related to job satisfaction (Hypothesis 2), and that conscientiousness is positively related to job satisfaction (Hypothesis 3).

Judge, Heller, and Mount (2002) found in their meta-analysis that agreeableness is weakly related to job satisfaction ($p = .17$). They argued that agreeable individuals have greater motivation to achieve interpersonal intimacy, which should lead to greater levels of well-being, of which job satisfaction is a part. This interpretation is in accordance with the meta-analysis by DeNeve and Cooper (1998) who showed that agreeableness predicts positive affect. Therefore, we hypothesized that agreeableness is positively related to job satisfaction (Hypothesis 4).

We formulated the hypothesis that openness to experience is related to propensity to quit (Hypothesis 5). This hypothesis was based on several studies

showing that sensation seeking, which is an element of openness to experience (McCrae, 1990), is related to propensity to quit (Lee & Mowday, 1987; Taris, Heesink, Feij, Van der Velde, & Van Gastel, 1991). Moreover, Van den Berg and Feij (1993) who found that, in a sample of applicants for various jobs, sensation seeking was a predictor of propensity to leave the job nearly two years later. Accordingly, Barrick and Mount (1991) found in their meta-analysis that openness to experience is negatively related to tenure, which indicates that open individuals sooner make the decision to quit. The relationship can be explained by the fact that the open individual has been conceived of "as being interested in experience for its own sake, eager for skill variety, tolerant of uncertainty, leading a richer, more complex, less conventional life" (McCrae, 1990, p. 123). A new job may provide these experiences.

Several studies showed that negative affectivity, which is strongly related to neuroticism, is negatively associated with depression (Brief, Burke, George, Robinson, & Webster, 1988; Chen & Spector, 1991; Elliott, Marmarosh & Pickelman, 1994). Enns and Cox (1997) showed in their review of research that neuroticism appears to be the most powerful predictor of depression and that extraversion is negatively related to depression. Also, Clark, Watson, and Mineka (1994) concluded in their literature review that negative affectivity (or neuroticism) appears to be a vulnerability factor for the development of anxiety and depression, and that positive affectivity (or extraversion) is related more specifically to depression. Martin (1985) explains the relationship between neuroticism and depression by the fact that the cognitive processing of negative self-related information is generally facilitated among high neuroticism scorers and that this tendency can lead to episodes of depression. On the basis of these studies, we hypothesized that extraversion is negatively related to depression (Hypothesis 6) and that neuroticism is related positively to depression (Hypothesis 7).

Friedman and Booth-Kewley (1987) showed that extraverts less frequently have coronary heart disease and related complaints. Grossarth and Eysenck's (1990) study on six behavioral types may explain these findings. The type that was less prone to coronary diseases, cancer, and depression was related to extraversion characterized by adjusted autonomy, self-regulation, and independence.

Characteristically, individuals belonging to this type create time for them to relax. Therefore, we supposed that extraversion is negatively related to somatic complaints (Hypothesis 8). Many studies have shown that neuroticism is strongly related to somatic complaints, e.g., Vassend and Skrondal (1999) and Parker, Bagdy, and Taylor (1989). Moreover, Costa and McCrae (1987) found in a longitudinal study that neuroticism predicted somatic complaints. They reviewed the research on this topic and explained the relationship by several artifacts. Whatever the reason for the relationship, on account of these studies, we supposed that neuroticism is positively related to somatic complaints (Hypothesis 9).

Lee, Jamieson and Early (1996) reported that hostility (low agreeableness) was positively related to somatic complaints. Also, Dembroski and MacDougall (1985) found that only the aspects of hostility and suppressed anger of Type-A behavior were related to coronary diseases. These results can be explained by the fact that, in conflict situations, individuals low on agreeableness have stronger physiological reactions than individuals high on this trait (Dembroski, MacDougall, Costa & Grandits, 1989). This result was confirmed by Smith's (1992) experimental study, in which hostile participants showed stronger cardiovascular reactions than agreeable participants, when they were aggressively challenged. Therefore, agreeableness was supposed to be negatively related to somatic complaints (Hypothesis 10).

In sum, the following hypotheses were formulated:

Hypothesis 1: Extraversion is positively related to job satisfaction.

Hypothesis 2: Neuroticism is negatively related to job satisfaction.

Hypothesis 3: Conscientiousness is positively related to job satisfaction.

Hypothesis 4: Agreeableness is positively related to job satisfaction.

Hypothesis 5: Openness to experience is related to propensity to leave.

Hypothesis 6: Extraversion is negatively related to depression.

Hypothesis 7: Neuroticism is positively related to depression.

Hypothesis 8: Extraversion is negatively related to somatic complaints.

Hypothesis 9: Neuroticism is positively related to somatic complaints.

Hypothesis 10: Agreeableness is negatively related to somatic complaints.

Method

Participants

Two hundred and ninety Romanian engineers (228 men and 62 women) participated in the study to fulfill a training requirement. All of them were working in research centers and had jobs as executive managers in Romanian companies. Their mean age was 34 and their tenure varied between 1 and 31 years. The data were collected during the time of the revolution in 1990.

Measures

The Big Five personality dimensions.

Because in Romania no test was available that directly measured the Big Five personality dimensions we used two well-known personality questionnaires representing a wide range of personality traits: the California Psychological Inventory (CPI) (Gough, 1987) and the Sixteen Personality Factor Questionnaire (16PF; Cattell, Eber, & Tatsuoka, 1970). Romanian versions of these questionnaires were administered. The scale scores were used to derive the Big Five dimensions.

The CPI has been derived from the MMPI and has been developed to measure similar traits of people without psychopathological personality problems (Gough, 1987). The questionnaire consists of 462 self-referring items on characteristic behavior patterns and feelings, opinions, and attitudes. The answer categories are: *true* and *false*. The following 20 personality traits are measured: Dominance (Do), Capacity for Status (Cs), Sociability (Sy), Social Presence (Sp), Self-Acceptance (Sa), Independence (In), Empathy (Em), Responsibility (Re), Socialization (So), Self-Control (Sc), Good Impression (Gi), Communality (Cm), Well-Being (Wb), Tolerance (To), Achievement via Conformance (Ac), Achievement via Independence (Ai), Intellectual Efficiency (Ie), Psychological Mindedness (Py), Flexibility (Fx), Femininity/Masculinity (F/M).

The 16PF (version E) has been normed for several populations, but is mainly used in personnel selection and education (Cattell, 1986). In each item, respondents are asked how they would react in a certain situation by choosing one of three alternatives. The questionnaire measures 16 basic personality traits and 4 second-order factors. The basic traits are the following: Warmth (A), Reasoning (B), Emotional Stability (C), Dominance (E),

Liveliness (F), Rule-Consciousness (G), Social Boldness (H), Sensitivity (I), Vigilance (L), Abstractedness (M), Privatness (N), Apprehension (O), Openness to Change (Q1), Self-Reliance (Q2), Perfectionism (Q3), Tension (Q4).

In order to obtain the Big Five personality dimensions, the traits that were selected are related to one of these dimensions. Costa and McCrae (1984) investigated the relationship between the Big-Five facet scales and the CPI scales. Thirteen personality traits that correlated higher than .30 with one of the facet scales were used. Also, on the basis of the descriptions in the manual five other personality traits could be classified in one of the Big Five dimensions. The traits of communality and capacity for status were left out of consideration. From the 16PF-personality traits, self-sufficiency was deleted because the description of this trait was not related to one of the Big Five. On the remaining 33 trait scores a factor analysis (principal components and varimax rotation) with a five-factor solution was performed. Nine traits with low loadings on all factors were deleted and the factor analysis was executed again. The results are presented in Table 1.

Clearly, each factor represents one of the Big Five personality dimensions. Factor 1 was called extraversion, factor 2 is openness to experience or intellect, factor 3 is conscientiousness, factor 4 is neuroticism, and factor 5 represents agreeableness. The factor scores were used as measures of the Big Five personality dimensions.

Well-being outcomes. Well-being outcomes were measured with Burke and Greenglass's (1995) questionnaire for assessing the levels of job stressors and job strains. The authors reported that all measures used had reliabilities greater than .70. The questionnaire was translated into Romanian by Pitariu, Miclea, and Munteanu (1987). The item scores were summed up and divided by the number of items. *Job satisfaction* was measured with four items forming a scale with a Cronbach's α of .80. A sample item is: "Knowing what you know now, if you had to decide all over again whether to take the job you now have, what would you decide?" This item was scored on the following answer categories: 1 (*I would decide definitely not to take the job*), 2 (*I would have some second thoughts*), and 3 (*I would decide without hesitation to take the same job*). *Propensity to leave* was measured with the single item:

“Taking everything into account, how likely is it that you will make a genuine effort to find a new job with another employer within the next year?” The answer categories were: 1 (*not at all likely*), 2 (*somewhat likely*), and to 3 (*very likely*). For explorative purposes also *inequity of pay* was measured. The scale consisted of three items. A sample item is: “Compared to other people where you work who do a job similar to yours, how fair is your pay?” All items had answer categories ranging from 1 (*more than I ought to get*) to 5 (*very much less than I*

ought to get). The Cronbach's α was .80. To measure *depression* six items were used. A sample item is: “I feel sad.” The items had four answer categories ranging from 1 (*never or a little of the time*) to 4 (*most of the time*). The Cronbach's α of this scale was .66. *Somatic complaints* were measured with a scale that consisted of 16 items. A sample item is: “Are you ever troubled by headaches or pains in the head?” with answer categories ranging from 1 (*never*) to 4 (*nearly all the time*). The scale had a Cronbach's α of .72.

Table 1. Factor analysis on the scales of the California Psychological Inventory (CPI) and the Sixteen Personality Factor Questionnaire (16PF)

SCALE	FACTOR				
	1	2	3	4	5
<u>Extraversion</u>					
Social boldness-16PF	.75	.04	.08	-.26	-.18
Social presence-CPI	.72	.18	-.32	-.08	-.19
Liveliness-16PF	.70	-.10	-.21	-.07	.01
Self-acceptance-CPI	.66	.18	.05	.17	-.23
Empathy-CPI	.65	.37	-.06	-.18	.10
Dominance-CPI	.62	.35	.30	-.10	-.23
Warmth-16PF	.43	.09	.08	-.21	.19
<u>Intellect</u>					
Tolerance-CPI	-.04	.78	-.06	-.15	.14
Achievement via independence-CPI	.14	.77	-.12	-.09	-.06
Intellectual efficiency-CPI	.15	.74	.10	-.17	-.06
Psychological mindedness-CPI	.10	.71	.10	-.22	-.15
Responsibility-CPI	.03	.59	.52	-.05	.27
<u>Conscientiousness</u>					
Rule-consciousness-16PF	-.01	.03	.78	-.04	.13
Flexibility-CPI	.21	.23	-.75	-.01	.12
Achievement via conformance-CPI	.09	.49	.62	-.13	.13
Perfectionism-16PF	.08	.12	.61	-.41	-.06
<u>Neuroticism</u>					
Tension-16PF	-.17	-.15	-.14	.79	.15
Emotional stability-16PF	.24	.22	.00	-.68	-.17
Vigilance-16PF	.19	-.11	-.15	.58	-.27
Apprehension-16PF	-.21	-.25	-.02	.55	.17
<u>Agreeableness</u>					
Femininity/Masculinity-CPI	-.18	-.14	.07	.16	.71
Sensitivity-16PF	.02	-.05	-.04	.22	.67
Dominance-16PF	.51	.01	.10	.15	-.55
Privateness-16PF	-.02	.12	.07	-.04	.39
Eigenvalue	3.59	3.42	2.56	2.31	1.94

Results

The intercorrelations among all the variables are presented in Table 2. Because of missing values the correlation analysis was performed in a smaller group than the factor analysis. This is the reason why some correlations among the personality factors were not zero. The hypothesized correlations

were tested one-tailed. The results show that extraversion was not significantly related to job satisfaction, that neuroticism was negatively related to job satisfaction, that conscientiousness was positively related to job satisfaction, and that agreeableness was not significantly related to job satisfaction. Consequently, Hypotheses 2 and 3 were confirmed, but Hypotheses 1 and 4 were not.

Hypothesis 5 on the relationship between openness to experience and propensity to leave was not confirmed. Extraversion was negatively related to depression and somatic complaints, and neuroticism was positively related to these variables. These results confirmed Hypotheses 6, 7, 8, and 9. Hypothesis 10 predicting a negative relationship between agreeableness and somatic complaints was also not confirmed. However, the correlation was significant in a two-tailed test in the opposite direction. In brief, six of the ten hypotheses were confirmed.

Exploratory analysis revealed some unexpected relationships, which were tested two-tailed. The corresponding correlations are presented in Table 2 and are indicated by asterisks. Extraversion was positively related to perceived inequity of pay; agreeableness was negatively related to propensity to leave and was positively related to depression; conscientiousness was negatively related to propensity to leave; and openness to experience was positively related to job satisfaction and negatively related to somatic complaints and depression.

Discussion

The results show that most of the relationships between the Big Five personality dimensions and well-being outcomes found in Western countries can be replicated in the East-European country of Romania. The study confirmed that extraversion is negatively related to somatic complaints and depression, that neuroticism is positively related to these variables. Also, job satisfaction was negatively related to neuroticism and positively related to conscientiousness. These findings show that most relationships between personality and well-being outcomes were replicated and were not affected by cultural-societal factors.

However, we found that some relationships were not confirmed. Firstly, extraversion was not related to job satisfaction. This may be explained by the fact that extraverts tend to express their emotions and that this expression is frustrated by the authoritarian management philosophy in Romania. In general, managers in private enterprises have become more authoritarian. This is due to the fact that they are trying to inhibit obsolete behavior and cognitive schemes that are not compatible with the new market economy. Nowadays, more and more stress is placed on the construction of

organizational cultures based on the principles of Western cultures.

Secondly, openness to experience was not related to propensity to leave. Obviously, most employees in Romania in 1990 had no alternative for their jobs. Therefore, changing jobs was no means for open individuals to acquire new experiences. The questionnaires were administered at the beginning of the transition phase, when the enterprises were still state-owned and the management was still the old one. In fact, in the year 1990, there was no work for the personnel employed in the organizations. They received their pay and hoped they would not be fired.

Thirdly, we found that agreeableness was not related to job satisfaction. Our explanation for this result is that in Romania it was not possible to get more rewards from the organization by being kind and friendly. The pay system that was inherited from the communist period did not allow changes in rewards, because everybody received a so-called incentive, which was equal each period or did not differ significantly.

Fourth, agreeableness was positively instead of negatively related to somatic complaints. This result may be explained by the fact that engineers in Romania had much negative feeling. Just after the revolution, a conflict between the workers and the managers developed which led to the implementation of some populist measures. Suppression of these real feelings by showing friendly behavior may lead to somatic complaints.

Also, most of the unexpected relationships can be explained by the socio-cultural situation in Romania. The major problem was a socio-cultural and educational one. The existence of the communist regime for 50 years explains a large part of the organizational behavior. First, extraversion was positively related to perceived inequity of pay. During the whole communist period pay inequity was present. Any reaction against it was punished. After the revolution, when people could express themselves openly, the other extreme was reached: everybody wanted high salaries without working. This situation is still present in state-owned companies. Of course, extraverts expressed these feelings of inequity more openly than introverts.

Second, openness to experience was positively related to job satisfaction and negatively related to somatic complaints and depression. These results can be explained by

the fact that open individuals welcome changes at work and in society in general. Instead of being worried, they were curious about what was happening. Third, conscientiousness was negatively related to propensity to leave. In Romania, many employees have two or three jobs outside the state-owned organizations. Because the state-owned companies are considered to offer more security, conformists tend to accept the bad situation in their present jobs. Fourth, agreeableness had a weak positive relationship with depression. This finding may be due to the fact that, in general, showing friendly behavior in a bad situation is a temporary suppression of real feelings, which can result in depression.

The theoretical implication of the study is that the external validity of the Big Five personality model is partly dependent on socio-cultural factors. These factors should be taken into account, when the model is used. Because the situation in Romania in 1990 was rather extreme our data are well suited to show that socio-cultural factors are at hand. Nevertheless, most relationships between the Big Five and well-being outcomes were similar to those found in other studies. These findings show that these relationships can be generalized to the situation in Romania.

The practical implication of the study is that when the Big Five personality dimensions are used in personnel selection, socio-cultural factors should be taken into account. The results suggest that in a very stressful and frustrating situation as in Romania in 1990 the negative effects of neuroticism are even stronger and that applicants with high levels of neuroticism are likely to be low on job satisfaction and high on somatic complaints and depression. In such a situation, openness to experience is a very positive trait, because it is positively related to job satisfaction and negatively related to somatic complaints and depression. Instead, agreeableness is a less desirable trait. It is not related to job satisfaction and it is positively related to somatic complaints. Conscientiousness was positively related to job satisfaction and negatively to propensity to leave and is, therefore, also in this situation a desirable trait. Unlike in other studies, extraversion is not related to job satisfaction, but still shows weak, negative relations with somatic complaints and depression.

A limitation of the study is that all data were collected at the same point of time.

Therefore, no conclusions about causal relationships and about the predictive validity of the Big Five can be drawn. Another limitation is that all data came from the same source: the sample of respondents. This may cause unknown forms of common method variance and increase the correlations among the variables. Also, the Big Five dimensions were derived from questionnaires that were not developed to measure these dimensions. Finally, the sample was restricted to engineers, which makes the generalizability of the results to other jobs in Romania difficult.

The present study shows that not all results on the external validity of the Big Five personality model can be generalized to all societies. Future studies on the Big Five should take into account socio-cultural factors related to the specific stage of development of a country and, more in general, to factors related to the situation in life.

REFERENCES

- Arvey, R. D., Bouchard, T. J., Segal, N.L., & Abraham, L. M. (1991). *Job satisfaction: Environmental and genetic components*. *Journal of Applied Psychology*, 74(2), 187-192.
- Barrick, M. R., & Mount, M. K. (1991). *The Big Five personality dimensions and job performance: A meta-analysis*. *Personnel Psychology*, 44, 1-24.
- Booth Kewley, S., & Friedman, H.S. (1987). *Psychological predictors of heart disease: A quantitative review*. *Psychological Bulletin*, 101, 343-362.
- Brief, A. P., Burke, M. J., George, J. M., Robinson, B. S., & Webster, J. (1988). *Should negative affectivity remain an unmeasured variable in the study of job stress?* *Journal of Applied Psychology*, 73, 193-198.
- Burke, R. J., & Greenglass, E. (1995). *A Longitudinal Study of Psychological Burnout in Teachers*. *Human Relations*, 48(2), 187.
- Cattell, R. B. (1986). *The 16 PF personality structure and Dr. Eysenck*. *Journal of Social Behavior and Personality*, 1(2), 153-160.
- Cattell, R.B., Eber, H.W., Tatsuoka, M.M. (1970). *Handbook for the 16PF*. Institute for Personality and Ability Testing, Inc., Champaign, IL.
- Chen, P. Y., & Spector, P. E. (1991). *Negative affectivity as an underlying cause of correlations between stressors and strains*. *Journal of Applied Psychology*, 76, 398-407.

- Clark, L. A., & Watson, D. (1991). General affective disposition in physical and psychological health. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of clinical and social psychology* (pp. 221-245). Pergamon Press, New York.
- Clark, L. A., Watson, D., & Mineka, S. (1994). *Temperament, personality, and the mood and anxiety disorders*. *Journal of Abnormal Psychology*, 103, 103-116.
- Costa, P. T., & McCrae, R. R. (1987). *Neuroticism, somatic complaints, and disease: Is the bark worse than the bite?* *Journal of Personality*, 55(2), 299-316.
- Connolly, J. J., & Viswesvaran, C. (2000). *The role of affectivity in job satisfaction: A meta-analysis*. *Personality and Individual Differences*, 29, 265-281.
- Dembroski, T. M., & MacDougall, J. M. (1985). Beyond global Type A: Relationships of paralinguistic attributes, hostility, and anger-in to coronary heart disease. In T. Field, P. M. McCabe & N. Schneiderman (Eds.), *Stress and coping*. Erlbaum, Hillsdale, NJ.
- Dembroski, T. M., MacDougall, J. M., Costa, P. T., & Grandits, G. A. (1989). *Components of hostility as predictors of sudden death and myocardial infarction in the Multiple Risk Factor Intervention Trial*. *Psychosomatic Medicine*, 51(5), 514-522.
- DeNeve, K. M., & Cooper, H. (1998). *The happy personality: A meta-analysis of 137 personality traits and subjective well-being*. *Psychological Bulletin*, 124(2), 197-229.
- Elliott, T. R., Marmarosh, C., & Pickelman, H. (1994). *Negative affectivity, social support, and the prediction of depression and distress*. *Journal of Personality*, 62(3), 299-319.
- Enns, M.W., & Cox, B.J. (1997). *Personality dimensions and depression: Review and commentary*. *Canadian Journal of Psychiatry*, 42(3), 274-284.
- Gough, H.G. (1987). *California Psychological Inventory. Administrator's Guide*. Consulting Psychologists Press, Palo Alto.
- Greenglass, E. (1984). *Type A behavior and stress among female managers*. Paper presented at the meeting of the XXII International Congress of Psychology. Acapulco, Mexico.
- Grossarth, M. R., & Eysenck, H. J. (1990). *Personality, stress and disease: Description and validation of a new inventory*. *Psychological Reports*, 66(2), 355-373.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). *Five-factor model of personality and job satisfaction*. *Journal of Applied Psychology*, 87, 530-541.
- Kahn, L. (1970). Some propositions towards a researchable conceptualization of stress. In J. W. McGrath (Ed.), *Social and psychological factors of stress* (97-104). Holt, Rinehart & Winston, New York.
- Karasek, R. A. (1979). *Job demands, job decision latitude, and mental strains: Implications for job redesign*. *Administrative Science Quarterly*, 24, 285-308.
- Lee, T. W., & Mowday, R. T. (1987). *Voluntary leaving an organization: An empirical investigation of Steers and Mowday's model of turnover*. *Academy of Management Journal*, 30, 721-743.
- Martin, M. (1985). *Neuroticism as predisposition toward depression: A cognitive mechanism*. *Personality and Individual Differences*, 6(3), 353-365.
- McCrae, R.R. (1990) *Traits and trait names: How well is Openness represented in natural languages?* *European Journal of Personality*, 4, 119-129.
- McCrae, R. R., & Costa, P. T. (1987). *Validation of the five-factor model of personality across instruments and observers*. *Journal of Personality and Social Psychology*, 52, 81-90.
- McCrae, R. R., & Costa, P. T. (2003). *Personality in adulthood: A five-factor theory perspective* (2nd ed.). Guilford Press, New York.
- Megargee, E.I. (1970). (1972). *The California Psychological Inventory Handbook*. Jossey-Bass, San Francisco, CA.
- Parker, J. D., Bagdy, R. M., & Taylor, G. J. (1989). *Toronto Alexithymia Scale, EPQ and self-report measures of somatic complaints*. *Personality and Individual Differences*, 10(6), 599-604.
- Pitariu, H. (1998). Le stress professionnel chez les ingenieurs dans le situation de transition sociopolitique [Professional stress of engineers during socio-political change]. In M. Rousson & L. Th. Fischer (Eds.), *Psychologie du travail et transformation de la société: Effects et problemes* (pp. 468-479). PAN, Neuchâtel.
- Pitariu, H. (2004). Stresul profesional la manageri: corelate ale personalității în contextul situației de tranziție social-economică din România [Managers occupational stress: personality correlates in transition social-economical context situation in Romania]. In A. Opre (Ed.), *Noi tendințe în psihologia personalității Modele teoretice*. Vol.II. ASCR (in press), Cluj-Napoca.

- Pitariu, H., Miclea, M., & Munteanu, I. (1987). *Tipul A de comportament și stresul profesional la personalul muncitor feminin cu funcții de conducere [Type A behavior and occupational stress in women working in managerial position]*. *Revista de Psihologie*, 33, 303-310.
- Spector, P. E., & O'Connell, B. J. (1994). *The contributions of personality traits, negative affectivity, locus of control and Type A to the subsequent reports of job stressors and job strains*. *Journal of Occupational and Organizational Psychology*, 67, 1-11.
- Staw, B. M., Bell, N. E., & Clausen, J. A. (1986). *The dispositional approach to job attitudes: A lifetime longitudinal test*. *Administrative Science Quarterly*, 31, 56-77.
- Staw, B. M., & Ross, J. (1985). *Stability in the midst of change: A dispositional approach to job attitudes*. *Journal of Applied Psychology*, 70, 469-480.
- Taris, T. W., Heesink, J. A. M., Feij, J.A., Van der Velde, E. G., & Van Gastel, J. H. M. (1991). *Arbeidsmobiliteit van jongeren: De invloed van persoons- en werkkenmerken [Job mobility of young adults: The effects of person and job characteristics]*. *Gedrag en Organisatie*, 4, 444-460.
- Van den Berg, P.T. & Feij, J.A. (1993) *Personality traits and job characteristics as predictors of work experiences*. *European Journal of Personality*, 7, 337-357.
- Van den Berg, P.T., & Feij, J.A. (2003). *Complex relationships among personality traits, job characteristics, and work outcomes*. *International Journal of Selection and Assessment*, 11(4), 326-339.
- Vassend, O., & Skrandal, A. (1999). *The role of negative affectivity in self-assessment of health: A structural equation approach*. *Journal-of-Health-Psychology*, 4(4), 465-482.
- Watson, D., & Clark, L. A. (1997). Extraversion and its positive emotional core. In R. Hogan, J. Johnson & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 767-793). Academic Press, San Diego, CA.
- Watson, D., & Slack, A. K. (1993). *General factors of affective temperament and their relation to job satisfaction over time*. *Organizational Behavior and Human Decision Processes*, 54, 181-202.