

PERSONALITY TRAITS OF STUDENTS OF BUDAPEST BUSINESS SCHOOL BEFORE AND AFTER THE ECONOMIC CRISIS

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The economic and social transformations of the recent years may have altered the attitudes of the young adults. We started out from the assumption that instability and downward social mobility triggered by the economic depression since 2008 have affected the personality organisation, the subjective satisfaction and well-being of this age group. Two surveys were carried out before and after the onset of the depression, in 2005 and 2012, among the students of Budapest Business School (BBS) to confirm our hypothesis (2005: N=133; 2012: N=83). The five factor-scale of NEOPI-R (Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness) was used to map the personality structure of students. The evaluation of the NEOPI-R revealed on both occasions that our students can be characterized with higher scores of Extraversion, Openness, Agreeableness and Conscientiousness than the average of the population. This can be explained by their young age or by the profile of BBS, as its programs attract students with a constellation of these personality traits. Compared to the findings of 2005, the survey of 2012 yielded that students are less conformist, but more open to new information: they achieved significantly lower scores on “openness to values”, but higher scores on the “openness to ideas” facet scale. It means that in 2012 the personality organisation and the attitudes of BBS students were more liable to be affected by potentially accessible high-quality new information than traditions. The results also suggest that youngsters are immune to the anxieties of the adult world, as the “Neuroticism” values were relatively low in both surveys. Moreover, in 2012 the “positive emotions” subscale of “Extraversion” got significantly higher scores than in 2005. It indicates that the level of subjective well-being of the students increased in the years of the crisis. It is also interesting to notice that, although the level of “Conscientiousness” decreased in the 2012 sample, “Conscientiousness” and “Neuroticism” had a significant negative correlation in both years. The more our students work and achieve, the healthier they are psychologically. These surveys led us to the conclusion that, despite the obvious existential difficulties, the psychic state and the putative coping potentials of our students are more positive than we expected.

Keywords: higher education, NEOPI-R, global financial crisis, subjective well-being, psychological health

The economic depression since 2008 resulted in significant downward social mobility and instability. The economic environment is in constant change, and it has severe consequences on the individual's personal life, as e.g. unpredictable financial losses, the burden of mortgages, the rising tuition fees and the insecurity of jobs. As a consequence, the new economic environment, unpredictability and lack of control may result in existential crisis and the subjective perception of danger. Psychologically it means that individuals are more exposed to anxiety disorders, depression or mood disorders.

Canadian researchers have investigated the prevalence of mood and anxiety disorders among adult employees between January, 2008 and October 2009 (Wang, 2010). They have measured depressive and anxiety disorders four times in different time intervals, and reported a significant increase in the prevalence of major depressive disorder during this period, but did not find changes in the prevalence of social phobia, panic disorder and generalized anxiety.

Massey and Souccar have revealed a significant raise in the prescriptions of anti-anxiety and sleep-aid drugs in New York City in the first year of the economic depression (2009), compared with the year before (Massey & Souccar, 2009). According to their survey, 40% of the New Yorkers are afraid of unemployment.

Students' reactions to the economic crisis were also investigated. Bushong reports that college students in the US experience extreme stress as the consequence of the financial crisis (Bushong, 2009). They feel that the economic environment is more threatening on their personal life than the difficulties in their interpersonal relationships. Students complain about uncertainty, the lack of control and the fear from their future. Very often students have to modify their career choice or give up their studies, because of the unexpected financial difficulties of their families.

Berfield examined several families who have been negatively affected by the global financial crisis (Berfield, 2009). She not only reports existential difficulties, but the frequent decomposition of the affected families. The author emphasises that the on-going economic crisis may have unexpectedly long lasting effects, because children and young adults also experience the world as a dangerous and uncertain place to live in. They may learn to struggle for money, and the "children of recession" are expected to be more rational, more materialistic – but psychologically less healthy.

Shugrue and Robinson also deal with the potential impacts of the economic difficulties on family life (Shugrue & Robinson, 2009). They also report increases in family tensions, abuse, fear and anxiety, but they also emphasise the potential positive outcomes of the crisis: family members can get closer to each other.

Aims, Hypotheses

I assumed that not only the adult population, but young adults, college or university students have also been affected by the economic and social changes after 2008. I assumed that the personality organisation of our students, the undergraduate students of Budapest Business School (BBS) has changed, and their subjective satisfaction or psychological well-being has decreased in the past few years. I intended to map the personality traits of the students using a psychometrically correct test. The revised version of NEO Personality Inventory (NEO-PI-R) is one of these personality tests, it is available in Hungary only for professionals and provides a complete personality profile. In order to test my hypothesis I measured the personality traits of students before the economic crisis in 2005, and “after” (or in the course of) the crisis in 2012. Finally I’ve compared the results of the two samples.

The NEO-PI-R

The NEO Personality Inventory is based on the Big Five Model (Costa & McCrae, 1992; De Fruyt et al., 2004). The Big Five Model claims that there are five basic independent personality traits, factors or dimensions, which together cover the whole human personality without overlaps.

The five factors or basic personality traits were identified several times by independent researchers (e.g. Tupes, Christal, Digman, Goldberg, Cattell, Costa and McCrae) (Digman, 1990). They applied lexical and statistical-mathematical methods to reveal the underlying and elementary traits of the personality. E.g. they have collected adjectives referring to human features from dictionaries, eliminated the synonyms, performed further trait-reduction by their factor-analysis (calculated correlation between the traits). These procedures led to the establishment of the basic super-traits of the personality, which were generated by all the independent researchers. The labels and the definitions of the super-traits may differ in the previously mentioned works, but their content, and especially the content of the first three super-traits, are practically the same (Cattell, 1996). The model has later been confirmed by other researchers from different cultures and languages: the same main personality dimensions have been reported e.g. from Hungary (De Fruyt et al., 2004), Germany (Ostendorf, 1990) and China (Trull & Geary, 1997).

The integration of the models resulted in the NEO-PI (1985) and later the NEO-PI-R (1990) (Wang et al., 2010; De Fruyt, 2004) The NEO-PI-R contains 240 self-descriptive sentences, and the subjects must score their attitudes and convictions between 1 and 5. The NEO-PI-R measures the 5 supertraits (factor-scales) of the Big Five Model. The test also measures 6 subscales (facets) of each of the factor-scales and 8 self-descriptive items belong to each facet. To sum up, NEO-PI-R contains 5 factor-scales, 30 (5x6) facets and 240 (5x6x8) items. As individuals score themselves 1 to 5 in the self-descriptive items, they can score 8 to 40 on the facet scales, and 48 to 240 on the factor-scales.

As the test is based on the Big Five Theory, NEO-PI-R covers the whole personality and there is only low correlation between the scales and facets. In other words, the NEO-PI-R applies independent scales which together give out a complete profile of the personality. According to some researchers the facet scales have more practical relevance in predicting behaviour or

attitudes (Paunonen, Ashton, 2001). Table 1 demonstrates the main factor-scales of NEO-PI-R and their subordinated facets.

Table 1. The factor-scales and facet scales of NEO-PI-R (Costa, McCrae, 1992).

| Personality dimensions measured by NEO-PI-R | |
|---|--|
| Factor-scales | Facets |
| Neuroticism | Anxiety, Hostility, Depression, Self-Consciousness, Impulsiveness, Vulnerability to Stress |
| Extraversion | Warmth, Gregariousness, Assertiveness, Activity, Excitement Seeking, Positive Emotion |
| Openness to experience | Fantasy, Aesthetics, Feelings, Actions, Ideas, Values |
| Agreeableness | Trust, Straightforwardness, Altruism, Compliance, Modesty, Tendermindedness |
| Conscientiousness | Competence, Order, Dutifulness, Achievement Striving, Self-Discipline, Deliberation |

For a better understanding, I would like to characterise very briefly these main personality traits, the factor-scales of NEO-PI-R, as commonly discussed in any psychology course book (Atkinson et.al., 2000).

In the Big Five Model *Neuroticism* means emotional stability. Those who achieve higher levels of Neuroticism tend to be more exposed to negative emotions (anxiety, hostility, depression). They may have weaker coping abilities with distress, and may have weaker frustration tolerance and impulse control. Higher Neuroticism values refer to a lower level of mental health and to a lower level of subjective psychological well-being.

Extraversion refers to the individual's need for external stimulation. It involves positive emotions, assertiveness, sociability, proactive attitudes, tendency to seek stimulation and general activity level. An extraverted person's attention is basically oriented to the external world. The opposite edge of the scale is introversion. An introverted person does not need excessive external stimulation in order to achieve the optimal level of activity, that's why they rather avoid the company of others and events rich in stimuli.

Openness to experience expresses the individual's appreciation of creativity, art, emotions, and unusual experiences. It also involves intellectual curiosity ("ideas" facet). The "values" facet expresses the person's conventional or unconventional beliefs. Openness also means an "open" cognitive style, which is the ability of thinking in symbols, using abstractions. Those who achieve low scores on the "Openness" scale tend to be more conventional and traditional (McCrae & Costa, 1987).

Agreeableness covers positive attitudes toward fellows. Agreeableness correlates with trust, altruism, self-sacrifice, empathy and cooperative attitude. Agreeable people tend to be cooperative, friendly, helpful and free of prejudices; they do not judge others. They are considered to be excellent team-workers, they are beloved by others. Those who are located at the other edge of the dimension are usually distant and suspicious. They are less optimistic about human nature, they do not trust others. They place their own interest above social interests, so they cannot easily reduce their own needs in order to serve community interests.

The fifth factor in this model is *Conscientiousness*. It shows an efficient, organised attitude as opposed to a careless, easy-going attitude at the other end of the scale. Those who achieve a high score in this dimension are aware of their responsibility; they like planning and do not neglect their duties. Compared with the less conscientious persons, they usually achieve well and tend to be more effective.

Participants and procedure

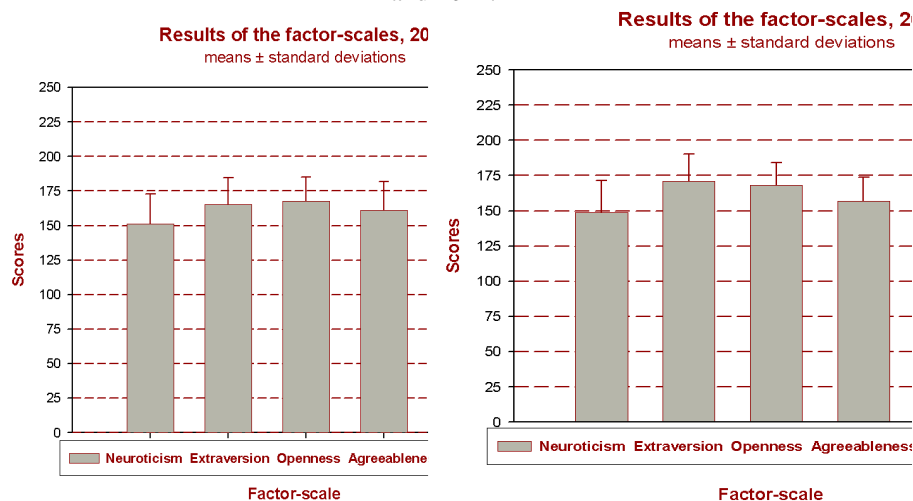
Two surveys were carried out before and after the onset of the depression, in 2005 and 2012, among the students of Budapest Business School (BBS). In the first survey 133 undergraduate students (male: 27 %; female: 73 %; age: 22.38 yrs \pm 5.98) filled in the NEO-PI-R. In 2012, 83 students were measured (male: 29%; female: 71 %; age: 20.32 yrs \pm 2.12). The participation was voluntary and anonymous.

Independent sample t-tests were performed to compare two groups, and significant differences were accepted if $p < 0.05$. The statistics were calculated applying “StatSoft Statistica 10”, graphs were edited by “SyStat SigmaPlot 8.0” software.

Results

The factor-scales were scored 48 to 240. Figure 1 demonstrates the raw scores' mean \pm standard deviation values of these personality dimensions in 2005 and in 2012.

Figure 1. Raw score mean \pm Std. Dev. values of the factor-scales measured in 2005 and 2012.



Score 144 can be considered as the middle of these scales. The results suggest that in both years our students can be characterized with higher scores of Extraversion, Openness, Agreeableness and Conscientiousness than the average of the population. The Neuroticism score does not differ from the average of the population. This pattern can be observed in both surveys, and does not contradict the results of scientific investigations.

Several papers report the relative constancy of the Big Five personality traits (McCrae & Costa, 1990; Rantanen et al., 2007) although they emphasize the effect of age on the factor–scales and facets (Soto et al., 2011; Roepke et al., 2001). Most individuals tend to mature psychologically from adolescence through young adulthood to middle age. This maturation involves the decrease of Extraversion and Neuroticism and the increase of Agreeableness and Conscientiousness (Caspi, Roberts & Shiner, 2005). Psychological maturation, which maintains these processes, can be attributed to three basic human motives: *“a desire for social acceptance; a desire for status and power, and the control of resources; and a desire for predictability and order”* (McCrae & Costa, 1990:208).

The sample I have measured is young and contains students of BBS. I suppose that not only their young age, but also some secondary factors have influenced their scores. E. g. their higher Conscientiousness values can be attributed to the higher educational level they represent within their age group. The higher Extraversion, Openness and Agreeableness domain-scores can be attributed to their career-choice. Our students are the future experts of tourism and catering. These professions may attract students with the constellation of these personality traits.

Gender differences also exist. Women are often reported to achieve higher scores in Neuroticism and Agreeableness domains, and also in various facets of Extraversion (“warmth”), Openness (“openness to feelings”) and Conscientiousness. Men tend to be more assertive and opened to ideas (Gavali, 2012; Vecchione et al., 2012). The results of these findings are not contradictory, but only women’s elevated Neuroticism scores were consistent and permanent.

This pattern can be attributed to the different evolutionary pressure to which men and women had to adapt in a pre-historic environment. In these ancient hunting-gatherer human communities men had to be less emotional, more determined, socially dominant, risk-taking and problem-solving. On the other hand, women’s prosocial behavior, emotional, warm, dutiful and nurturing attitudes served the survival of the next generation. These early adaptations might lead to a different personality organization in men and women, which is also reflected in the scores of NEO-PI-R (Schmitt, 2008).

The previously mentioned differences can be observed in my sample of BBS students. Table 2 demonstrates the significant gender differences I have measured among men and women in 2005 and 2012.

Table 2. Significant gender differences among men and women in the domain scales and facets of NEO-PI-R in 2005 and in 2012. Significance level was determined as $p < 0.05$. The non-indicated facets do not represent significant differences between men and women. Significantly higher scores are indicated with **bold** letters.

| T-TESTS GROUPING VARIABLE: GENDER | Mean \pm Std. Dev. values | | | |
|--|---|---|---|--|
| | 2005 | | 2012 | |
| NEO-PI-R Factor-scales and facets | MEN | WOMEN | MEN | WOMEN |
| Neuroticism | 139.14 \pm 21.40 | 155.99 \pm 20.68*** | 139.00 \pm 21.21 | 153.27 \pm 22.1 ** |
| <i>anxiety</i> | 22.83 \pm 4.69 | 25.91 \pm 4.17** | 22.75 \pm 4.84 | 25.16 \pm 4.44 * |
| <i>depression</i> | 22.52 \pm 5.78 | 25.29 \pm 6.12* | 22.25 \pm 4.25 | 25.28 \pm 5.61 * |
| <i>hostility</i> | 21.52 \pm 5.12 | 24.26 \pm 4.69* | | <i>n.s.</i> |
| <i>self-consciousness</i> | 23.69 \pm 5.04 | 26.29 \pm 5.13* | | <i>n.s.</i> |
| <i>impulsiveness</i> | 23.81 \pm 5.14 | 26.34 \pm 5.06* | | <i>n.s.</i> |
| <i>vulnerability to stress</i> | 24.90 \pm 5.03 | 27.94 \pm 3.86 ** | | <i>n.s.</i> |
| Extraversion | | <i>n.s.</i> | | <i>n.s.</i> |
| <i>warmth</i> | 28.83 \pm 5.01 | 31.09 \pm 3.91* | | <i>n.s.</i> |
| <i>gregariousness</i> | 27.17 \pm 6.09 | 29.40 \pm 4.28* | | <i>n.s.</i> |
| Openness | | <i>n.s.</i> | | <i>n.s.</i> |
| <i>aesthetic openness</i> | | <i>n.s.</i> | 26.95 \pm 5.04 | 29.91 \pm 4.38 ** |
| <i>emotional openness</i> | 28.97 \pm 5.27 | 31.27 \pm 4.39* | | <i>n.s.</i> |
| <i>fantasy</i> | 26.69 \pm 4.70 | 28.86 \pm 5.04* | | <i>n.s.</i> |
| Agreeableness | | <i>n.s.</i> | | <i>n.s.</i> |
| <i>altruism</i> | | <i>n.s.</i> | 33.16 \pm 3.71* | 30.98 \pm 3.93 |
| Conscientiousness | | <i>n.s.</i> | | <i>n.s.</i> |
| <i>competence</i> | 29.45 \pm 3.89* | 27.64 \pm 3.86 | | <i>n.s.</i> |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In both surveys, women obtained significantly higher scores in Neuroticism and in some facets of Extraversion. Women have also got superior scores in some emotional and artistic facets of "Openness". This pattern reflects an emotional, sociable, but vulnerable personality. As it was discussed previously, those who can be characterized by higher Neuroticism values tend to be emotionally unstable. They may have problems with emotional self-regulation, impulse-control and they are more likely to be exposed to depression or anxiety. I would like to emphasize that this difference appears only in comparison with men and it doesn't refer to an abnormal personality organization among the female-students of BBS.

It is also interesting to notice that, compared with women, male-students have obtained significantly higher scores in altruism (2012) and competence

(2005). Moreover, the mean of altruism facet was 33.16, which is the highest score they have obtained in any of the facets. According to previous studies, altruism (selflessness or self-sacrifice, facet of “Agreeableness”) is not a typical male-characteristic (Gavali, 2012). All the other results of my surveys strengthen the findings of other researchers. The higher level of Neuroticism, warmth, openness to emotions and aesthetics among women, and increased level of competence among men have been reported several times (Costa, Terracciano & McCrae, 2001; Schmitt et al., 2008). The higher level of “Agreeableness” is rather characteristic of psychologically matured persons (Caspi, Roberts & Shiner, 2005). The unexpectedly high altruism score of our male-students may not only be ascribed to their maturity, but also to our programs (tourism, catering, commerce, communication etc.) which may attract these friendly boys. On the other hand, girls whose Agreeableness scores are not low either may not have attained higher score in Agreeableness or altruism in comparison with boys, because they have relatively high emotional instability.

Besides comparing the sample with general standards, as well as the male and female scores within the sample, it was also very interesting to juxtapose the the two samples measured in 2005 and 2012. Table 3 demonstrates the significant differences between the results of the 2005 and 2012 surveys.

Table 3. Significant differences between the personality traits measured in 2005 and in 2012. Significance level was determined as $p < 0.05$. The non-indicated domain-scales and facets do not represent significant differences between the two surveys.

Significantly higher scores are indicated with **bold** letters. Facets are labeled with their domain-scale in brackets. (*E*: Extraversion, *O*: Openness, *A*: Agreeableness, *C*: Conscientiousness)

| T-TESTS GROUPING VARIABLE: SURVEY | Mean \pm Std. Dev. values | |
|--|---------------------------------------|---------------------------------------|
| | 2005 | 2012 |
| Age | 22.38 \pm 5.98** | 20.32 \pm 2.12 |
| Extraversion | 165 \pm 19.13 | 170.90 \pm 19.18* |
| assertiveness (<i>E</i>) | 23.19 \pm 4.80 | 24.75 \pm 4.85* |
| excitement seeking (<i>E</i>) | 27.80 \pm 4.76 | 29.46 \pm 4.51* |
| positive emotions (<i>E</i>) | 28.49 \pm 5.60 | 30.20 \pm 5.10* |
| openness to ideas (<i>O</i>) | 26.52 \pm 4.79 | 28.50 \pm 4.61** |
| openness to values (<i>O</i>) | 28.41 \pm 3.81** | 26.75 \pm 3.43 |
| modesty (<i>A</i>) | 26.62 \pm 5.24*** | 23.97 \pm 5.45 |
| dutifulness (<i>C</i>) | 31.06 \pm 3.81* | 29.93 \pm 4.09 |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The sample measured in 2012 was significantly younger than the first sample ($t = 2.99$; $p = 0.003$). This may have contributed to their higher level of Extraversion: in 2012 students' Extraversion domain-scale and its several facets (excitement-seeking, assertiveness, positive emotions) were significantly higher than in 2005. Neuroticism reflects emotional instability and emotional vulnerability, but no difference was detected between the two surveys regarding Neuroticism and its facets. In other words, students' originally normal level of Neuroticism has not changed between 2005 and 2012.

Positive emotions (facet of Extraversion) can be identified as “happiness”. Compared to the values of the first survey, the scores of this facet were higher in 2012. It was surprising that neither Neuroticism and its subscales, nor the positive emotions facet suggest an unhappy, emotionally overcharged student-population in 2012. In other words, the mental and psychological health of the students seems to be better now than before the economic crisis. The social, existential and economic challenges of the adult population do not seem to affect the subjective well-being of the youngsters. This finding was astonishing, but finally it is good news.

According to my findings, students before the economic crisis were much more modest ($t = 3.53$; $p = 0.0005$), but more dutiful ($t = 2.06$; $p = 0.04$), and they were more open to traditional values ($t = 3.23$; $p = 0.001$) and less open to new ideas ($t = -2.98$; $p = 0.003$).

In my interpretation these patterns reveal a significant transformation in the personality structure of the youngsters. Nowadays they are more prone to reject old, traditional values, to refuse authority and criticize the ideas of the previous generations than a few years ago. I do not believe that young people at BBS, future experts of the business world are not interested or not affected by the socio-economic transformation of their environment. Recent data suggest that these challenges do not destroy their mental health: the distress they have to face with urges them to an adaptive, problem-solving coping. They refuse the maladaptive, less-functioning socio-economic paradigms, and actively search new solutions and new ideas.

It is also important to notice that in both samples (in 2005 and in 2012) there was a significant negative correlation between “Neuroticism” and “Conscientiousness”: the more conscientious the students are, the less neurotic they are. In other words, dutiful, self-disciplined, achievement-oriented, diligent attitudes are more likely to be accompanied by emotional stability and subjective psychological well-being.

Conclusion

In this paper I have reported the results of two surveys carried out before and after the economic crisis. I intended to reveal significant differences between the personality organization of the undergraduate students of BBS during this period. In both years of the surveys (2005 and 2012) the differences between males and females corresponded with the findings of other scholarly research: women were found to be more emotional and vulnerable. In my second sample (2012) men were found much more altruistic than women: probably the programs of BBS related to tourism, catering and commerce attract these extremely “friendly” and prosocial boys.

Our students must also face with the consequences and challenges of the recent socio-economic changes, but generally they can apply a positive, problem-focused coping. The difficulties did not enhance their emotional instability or neuroticism, but promoted a curious, opened, less traditional and more critical attitude. If we consider that the students of the 2012 survey were 15-17 year old teenagers at the beginning of the economic depression, it is not astonishing that they can accept the recent conditions more naturally, with less anxiety and negative emotions. The perceived uncertainty of the adult world inspires them to a critical, less traditional and open-minded attitude, rather than a neurotic, emotional and less adaptive reaction.

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