THE FIVE-FACTOR MODEL:
GENERAL OVERVIEW

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The article describes the five-factor model (FFM), giving an overview of its history, basic dimensions, cross-cultural research conducted on the model and highlights some practical studies based on the FFM, including the studies on job performance, leader performance and daily social interactions. An overview of the recent five-factor theory is also provided. According to the theory, the five factors are encoded in human genes, therefore it is almost impossible to change the basic factors themselves, but a person’s behavior might be changed due to characteristic adaptations which do not alter personality dimensions, only a person’s behavior.

Key words: five-factor model, five-factor theory, cross-cultural research, personality dimensions, characteristic adaptations.

The earliest trait theories of personality were created by Allport and Odbert who used the lexical approach, Cattell’s research in this field resulted in his 16-factor model of personality, but the main problem was the lack of consistency among the theories. The first steps to resolving this controversy were made by Cristall and Tupes who published their technical report on the subject in 1961. According to the report, only five recurring factors were discovered in eight samples, the fact that was a surprise to the researchers themselves: “In many ways it seems remarkable that such stability should be found in an area which to date has granted anything but consistent results. Undoubtedly the consistency has always been there, but it has been hidden by inconsistency of factorial techniques and philosophies, the lack of replication using identical variables, and disagreement among analysts as to factor titles” [10. P. 176].

But Cristall and Tupes’ research went almost unnoticed and new studies of the five-factor model were conducted only in 1980s when the model was proved to be valid by different researchers with five recurrent factors, or dimensions of personality, being found in various samples.

Modern psychology tends to represent human personality as taxonomy of traits thus creating a model of personality. And one of the most wide-spread models is the
The five-factor model (FFM) also referred to as the Big Five. The five-factor model of personality is a hierarchical organization of personality traits in terms of five basic dimensions: Extraversion (E), Agreeableness (A), Conscientiousness (C), Neuroticism (N), and Openness to Experience (O). According to McCrae and John, “the FFM could provide a common language for psychologists from different traditions, a basic phenomenon for personality theorists to explain, a natural framework for organizing research, and a guide to the comprehensive assessment of individuals that should be of value to educational, industrial/organizational, and clinical psychologists” [10. P. 177].

Each factor is formed by finer traits that can be used to give an accurate description of personality. A person high in Extraversion is usually described as active, assertive, energetic, outgoing, enthusiastic and talkative (those traits form the positive pole of the Extraversion factor while the opposite traits form the negative pole, same goes for all the factors). A person high in Agreeableness is described as appreciative, forgiving, generous, kind, sympathetic and trusting. Persons high in Conscientiousness are usually efficient, organized, planful, reliable, responsible and thorough. Persons high in Neuroticism tend to appear as anxious, self-pitying, tense, touchy, unstable and worrying (these traits refer to the negative pole of Neuroticism, the opposite personality traits form the positive pole of the N factor, usually referred to as Emotional Stability). Persons high in Openness to experience are usually artistic, curious, imaginative, insightful, original, and have wide interests. Openness to experience is the most controversial factor of the five-factor model and might also be referred to as Openness, Intellect, or Culture depending on what a certain researcher tends to see as the most important factor-forming trait. But recently most researchers have settled with Openness to experience label [10].

Some researchers argue that the five-factor model is not a complete theory of personality (or hardly a theory of personality at all). Their main objections to the model are the following: the five-factor model has too many factors; the five-factor model has too few factors. These issues can be resolved by analyzing the empirical data gathered on the model. According to this data, any additional factors are most likely a result of splitting one big factor into two smaller ones, which is easily avoidable and unnecessary. As for the other side of the coin, the five-factor model having too many factors, there are some theories which provide two- or three-factor models, but they proved to be mutually inconsistent (e.g. N, which is crucial to H.J. Eysenck’s system, could be left out of Peabody’s. Low A and low C are collapsed in H.J. Eysenck’s conception of Psychoticism, whereas low A is combined with N to form Tellegen’s Negative Emotionality). McCrae and Costa (1987) extracted factors from 80 adjective pairs in one sample of self-reports and one of peer ratings. When fewer—or more—than five factors were extracted, they could not be matched across the two samples, but an almost perfect match was found with five factors. Similar analyses, with similar results, have been reported by other researchers. Five factors, according to McCrae and John, are “just right” [10].

Another issue the five-factor model has to face is the cross-cultural consistency of the model. If the model is not consistent across different cultures, it has little to no use for thorough research and application. There is a great number of cross-cultural
researches based on the five-factor model, and we would like to highlight the one conducted by A.A. Hendrisks et al. They analyzed data from ten European and three non-European countries. As regards the European countries, data were available from Belgium, Croatia, Czech Republic, England, Germany, Hungary, Italy, the Netherlands, Slovakia, and Spain. As regards the non-European countries, data were available from Israel, Japan, and the USA. These countries represent the Germanic (Belgium, England, Germany, the Netherlands, the USA), Romance (Italy, Spain), and Slavic branches (Croatia, the Czech Republic, Slovakia) of the Indo-European languages. In addition, representatives of the Semito-Hamitic (Israel) and Altaic (Hungary, Japan) language families were included. For all translations not yet available from the construction phase of the five-factor personality inventory, an instrument to measure each of the Big Five dimensions, a translation/back-translation procedure followed. Initial translations were produced by the respective researchers and their coworkers in each country. The back-translations were carried out in the Netherlands, by professionals not familiar with personality language. Two of the Dutch authors of the five-factor personality inventory independently checked the results for possible shifts in meaning. If necessary, a second round of translation and back-translation followed. The first aim of the study was to check whether the five-factor structure of the five-factor personality inventory could be recovered in a variety of European and non-European countries, the second aim was to check the generalizability of the five-factor structure and the third aim was to establish an overall structure that can function as an international reference, if the findings regarding the first two aims were to warrant this; all of these aims were fully achieved. The results show that the same five-factor structure exists in all samples (though with slight variations, this fact suggests that direct unadjusted translation of the instrument might influence the final result of the research). On the other hand, almost all items showed the same primary loadings in the structure established using data from all 13 countries as in the Dutch normative structure. Indeed, it can be concluded that factor meaning has been preserved in the five-factor personality inventory international reference structure [8].

The five-factor model can be used not only for research and general description of personality but also to make predictions on human behavior, including job performance, leader performance, daily social interactions, etc.

Barrick and Mount conducted a study that investigated the relation of the five-factor model dimensions to certain job performance criteria (job proficiency, training proficiency, and personnel data) for five occupational groups (professionals, police, sales, managers and skilled/semi-skilled). Results indicated that one of the five-factor model dimensions, Conscientiousness, showed consistent relations with all job performance criteria for all occupational groups. As for the remaining groups, their estimated correlations varied by the criterion type and occupational group: Extraversion was a valid predictor for two occupations that involve social interaction (sales and managers) across all the criterion types. Also, both Extraversion and Openness to experience were valid predictors of training proficiency criterion (across all occupational groups). Other factors were also found to be valid predictors for some occupations and some criterion types.
but the magnitude of estimated correlation was too small. These findings have numerous applications for research and practice in personnel psychology, namely in the subfields of personnel selection, development and training, and performance appraisal [6].

Bartone et al. conducted a study on leader performance and its prediction using the five-factor model. The purpose of this study was to evaluate the influence of the FFM personality dimensions, as well as psychological hardiness, and social judgment on leader performance in U.S. military academy cadets at West Point who were studied in two different organizational contexts: summer field training, which emphasizes successful completion of group tasks in a field environment, and during academic semesters, which emphasizes organizing time and schedules and balancing competing requirements within a complex social network. Leader performance was measured with leadership grades (supervisor ratings) aggregated over four years at West Point. According to the researchers, hierarchical regression results showed leader performance in the summer field training environment as predicted by the FFM Extraversion, and Hardiness, and a trend for Social Judgment. Extraversion was a significant independent predictor of leader performance during the summer training periods, when cadets are actively engaged in field maneuvers and challenging group tasks. This is an environment in which social interactions are frequent, where good social skills and an outgoing and assertive style of interacting could confer an advantage for leaders. During the academic period context, leader performance is predicted by mental abilities, the FFM Conscientiousness, and Hardiness, with a trend for Social Judgment. Conscientiousness also was a significant predictor of leadership performance during the academic year. Conscientiousness was related to job performance in multiple samples and contexts (e.g. the one conducted by Barrick & Mount, described above), and showed fairly consistent relations with leadership. Neuroticism and Agreeableness showed small but significant correlations with leadership performance in the predicted directions, but there was no evidence for a relation between Openness and leadership performance in that study [7].

Barrett and Pietromonaco conducted a study that examined whether individuals’ personality ratings on dimensions of the five-factor model predicted their immediate Perceptions of themselves and others during daily social interactions. Participants completed personality measures at an initial session and recorded and evaluated their interactions over a one-week period. Participants’ immediate perceptions were predicted strongly by their Extraversion scores, moderately by their Agreeableness and Neuroticism scores, and only weakly by their Openness to experience score. These findings suggest that at least three of the five factors accurately represent individuals’ thoughts and feelings during their daily lives [5].

As we see, the FFM proved to be useful in predicting various aspects of human behavior, but there is still a question, whether a theory based on the five-factor model could be created. Allik and McCrae presented their five-factor theory, according to which all the traits are endogenous dispositions, relatively untouched by life experience. FFT suggests that differences in the mean levels of traits across cultures may be due to differences in the distribution of trait-related alleles, and that cultural differences
may be the effect, rather than the cause, of trait level differences. Allik and McCrae believe, that environment does not reshape human personality in its core but only affects characteristic adaptations which result in certain behavior (that may or may not correlate with actual trait levels). The researchers also emphasize the role of self-selection, the process in the course of which individuals with traits and dispositions that are less desirable in a certain culture tend to move to other cultures and societies where their personality meets social requirements [10].

The Five-factor model and the recent five-factor theory provide a useful framework for studying human personality as well as a great instrument to work with said personality in terms of development and better adaptation to society.

The most interesting direction of research for us is the study of academic performance and its correlation with certain personality traits, because constant learning, training and acquiring new skills is vital for the modern society and each and every person of said society. Therefore we believe that studying the basic traits and correlations behind learning processes might help us create better educational programs for many types of students, ranging from children to senior citizens willing to acquire new skills.

In terms of studying academic performance of Russian students we believe that using A.I. Krupnov’s trait model [1] might prove more useful due to its being based on a Russian sample and having more divertive traits associated with learning process. There is a number of publications based on this model [2; 3; 9] which suggest that Krupnov’s model is the best choice for a research of that kind.

REFERENCES

В статье дается обзор пятифакторной модели личности, в том числе ее история, описание аспектов личности, некоторые кросскультурные исследования в рамках модели, а также ряд практических исследований, среди которых исследования, посвященные успешности трудовой и лидерской деятельности и повседневного социального взаимодействия. Рассмотрена основанная на модели теория, согласно которой уровень развития фактора определяется генетически и не изменяется в течение жизни, однако поведение человека может измениться в ходе адаптаций характера, не затрагивающих сами аспекты личности.

Ключевые слова: пятифакторная модель личности, пятифакторная теория личности, кросскультурное исследование, аспекты личности, адаптации характера.