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Personality Determinants of the Effectiveness of the Prison Service

Abstract: This paper presents the results of research on the relationship of personality with a sense of self-efficacy of the Prison Service. The results were obtained on the basis of studies of 190 prison officers from the security, penitentiary and therapeutic departments. A *Personality Questionnaire* (NEO-PI-R) Costa and McCrae was used for the personality analysis. Self-efficacy was measured using the *Generalized Self Efficacy Scale* (GSES) Schwarzer, Jerusalem and Juczyński. The results indicate that neuroticism, extroversion, openness and conscientiousness and their components are related and affect a significant effect on self-efficacy.

Key words: personality, self-efficacy, Prison Service.

Personality and its importance at work

The problem of personality is an important area of research in terms of the correctness and incorrectness of human behavior in different areas of functioning, including in the workplace. Already in the 1990s discussion and research were resumed on the importance and role of personality, and through the use of meta-analysis, it turned out that personality factors are significantly related to the level of productivity and other variables of organizational behavior. These tests conclusively proved that it was a mistake to underestimate the role and importance of personality in solving various problems related to organizational behavior. Therefore, there is a need for more focused, systematic and program prepared

studies on the relationships of personality with appropriately selected forms of behavior at work (Rostowski 2001). Psychology, like any other dynamically and multidirectionally developing field of science, faces a number of problems of substance, based on the fact of the equal presence of a number of paradigms and research activity within it, resulting in a further revision of theoretical models. Psychologists attempt to specify the concept of “personality” and create a set of core features, which determine certain behaviors typical of people in general and about certain individual behaviors (personal). It should also be noted that the personality of a particular person is something that is acquired throughout life, i.e. over the course of individual development by various factors. The analysis of human behavior in all its diversity leads to the conclusion that there are characteristics of behavior which are transsituational and somewhat transfunctional, which relate to all the behaviors of the entity, regardless of whether they are an expression of a particular function and regardless of the specific circumstances in which they are realized. In other words, the entity’s behavior – regardless of whether it is an observable expression, for example, of cognitive or motivational processes or, for instance, learning processes – they have a common property (Drat-Ruszczak 2008; 1999 Gałdowa; Oleś 2011). It is worth emphasizing that from the functional side, personality is a system that is responsible for enriching, maintaining and changing relations with the world that are characteristic of the person. Personality is responsible for adaptation, understood as suiting influences and interactions of the environment and internal inclinations, including the needs of the individual (Oleś 2011). Therefore, the use of the theory of personality in the study on organizational behavior provides great possibilities of a more adequate and reliable understanding of the behavior of employees in the workplace, performing their tasks at different positions and in different organizations.

The studies carried out so far show that a person choosing different professions are characterized by different patterns of personality traits (Tokar et al. 1998). For example, among physicists one can observe a higher level of reserve and prudence (Wilson, Jackson 1994), those involved in marketing have a high need for achievement, ambition and low emotionality (Matthews, Oddy 1993), employees of Public Relations departments have high Machiavellianism (Piotrowski 2004), engineers are characterized by higher obsession, accountants are often paranoid and students of drama and theater studies have elevated levels of narcissism and hysteria (Silver, Malone 1993). In social perception, workers of uniformed services are characterized by specific personality traits. However, contrary to popular belief, soldiers are not distinguished by a higher level of authoritarianism (Piotrowski, Kubacka 2013), responsibility and conscientiousness (Piotrowski, Pękała 2015) in comparison with representatives of civil professions.

Interest in the issue of personality in uniformed groups involves the need to improve the efficiency of their operation (Gerber, Ward 2011). Different personality profiles translate into different levels of efficiency (Pacek 2013).

The first Polish studies on the personality of penitentiary staff were conducted by Schmid (2001), and to date there have been few native studies raising this subject. “Occupational personality”, which can be diagnosed using tools based on the model of the “Big Five” is associated with effectiveness in carrying out duties (Orozco 2011). The relationship between the various dimensions of personality and self-efficacy is particularly important in professions that are highly exposed to occupational stress (Ebstrup et al. 2011), and the occupation of an officer of the Prison Service is certainly such an occupation (Piotrowski 2007, 2014, 2016).

Self-efficacy

Self-efficacy refers to Bandura’s concept of expectations and the concept of self-efficacy (1977). It can refer to the general belief about coping with difficulties or to specific activities in which the individual is competent. The relation of selected personality traits with a sense of self-efficacy is important in professions associated with educating others (McKenzie 2000), which of course applies to penitentiary personnel. Individuals with high levels of *extroversion* and low *neuroticism*, at the same time having a high level of *self-efficacy*, have a higher *mental resilience* and cope better with difficult situations (Bromand et al. 2012). Other studies have shown that the various dimensions of personality in conjunction with a high level of *self-efficacy* contribute to a better functioning of the organization through greater organizational commitment of employees (Lee 2008). Higher levels of *self-efficacy* combined with high *extroversion* fosters a sense of satisfaction with the service and prevents occupational burnout of penitentiary staff (Herlickson 2010). In addition, self-efficacy is associated with better adjustment to the service (Rawa 1995) and lower health costs which are the result of occupational stress (Ogińska-Bulik 2005). Self-efficacy by penitentiary personnel does not depend on whether the officers work directly with inmates or not (Liu et al. 2013). The study also revealed that *self-efficacy* is associated negatively with symptoms of depression, and positively with organizational support, which plays an important role not only in the Prison Service but also in the Police (Pastwa-Wojciechowska, Piotrowski 2014) and the Polish Armed Forces (Piotrowski 2015).

Methodology of own studies

Subject and purpose of the research

The subject of the study is the personality and self-efficacy penitentiary personnel. The main goal was to determine which personality dimensions are associated significantly with the sense of self-efficacy of penitentiary staff.

Research problem

The research problem is an attempt to answer the question, which of the major personality factors and their components contained in the “Big Five” model are related and affect self-efficacy of Prison Service officers. From this general problem, detailed problems were brought out.

P 1. How are neuroticism, extroversion, openness, agreeableness and conscientiousness associated with the sense of self-efficacy?

P 2. How are components of neuroticism, extroversion, openness, agreeableness and conscientiousness associated with the sense of self-efficacy?

P 3. What is the effect of component of neuroticism, extroversion, openness, agreeableness and conscientiousness on self-efficacy?

Research hypotheses

The consequence of putting forth research problems was establishing working hypotheses.

H 1. The main factors of personality, such as extroversion, openness, agreeableness and conscientiousness, and their components, are positively associated with a sense of self-efficacy.

H 2. Neuroticism and its components are associated negatively with a sense of self-efficacy.

Determining which subfactors of personality affect self-efficacy is exploratory, and for this reason hypothesis no. 3 was abandoned.

Variables and indicators

An independent variable in the study is personality traits, and a dependent variable is self-efficacy. Variable indicators are respectively the results in the Personality Questionnaire (NEO-PI-R) for personality traits, and the result in the Generalized Self Efficacy Scale (GSES) for the sense of self-efficacy.

Respondents

The study involved 190 officers of the protection, penitentiary and therapeutic departments. The average age was $M = 34.4$ and $SD = 5.7$. The group study was held at the Central Training Center of the Prison Service in Kalisz during courses and training, therefore, also due to this the respondents represent a number of penitentiary institutions from all over the country. Nearly 80% of the study group serves in restricted type prisons. Given the availability of the study group, purposeful selection was used.

Applied research tools

The study used the Personality Questionnaire and the Generalized Self Efficacy Scale.

Costa and McCrae’s **Personality Questionnaire** in the Polish adaptation of Siuta (2006) is used for the diagnosis of major personality traits (neuroticism, extroversion, openness, agreeableness, conscientiousness); it also takes into account the individual components of each of the measured traits.

Schwarzer, Jerusalem and Juczyński’s **Generalized Self Efficacy Scale** (2001) is designed to measure perceived self-efficacy in problem situations.

For the analysis of the results, the statistical package SPSS 23.0 was used.

Results of own studies

Statistical analysis began with determining the level of the main personality traits and *sense of self-efficacy* as well as the correlation between these variables. Table 1 presents the data obtained.

Table 1. Medians, standard deviations and R-Pearson’s correlation coefficients between the main personality traits and *sense of self-efficacy*

| | Neuroticism M = 80.32 SD = 19.67 | Extroversion M = 104.85 SD = 16.87 | Openness M = 101.37 SD = 12.63 | Agreeableness M = 105.76 SD = 15.78 | Conscientiousness M = 116.69 SD = 21.58 |
|------------------------------------------|----------------------------------------|------------------------------------------|--------------------------------------|-------------------------------------------|-----------------------------------------------|
| Self-efficacy M = 32.38; SD = 5.67 | -0.35* | 0.25* | 0.29* | 0.10 | 0.32* |

* $p < 0.01$

Source: own study.

It is worth noting that penitentiary personnel is characterized by low results on a *neuroticism* scale, and high in the *conscientiousness* scale. Analyses of correlations show that almost all the major personality traits are associated with a *sense of self-efficacy* (except for *agreeableness*). With the increase of *extroversion*, *openness*, and *conscientiousness* as well as the decrease of *neuroticism*, the *sense of self-efficacy* increases. The comparison of the results of the *sense of self-efficacy* in the surveyed officers with the data obtained during studies on elite personnel of Prison Service Intervention Groups is interesting (Piotrowski 2012). Officers of Intervention Groups have a *sense of self-efficacy* at the level of 9 sten, and in the current survey at 7 sten. Penitentiary personnel with a high level of *sense of self-efficacy* experience stress (Piotrowski 2011) and occupational burnout

(Piotrowski 2010) less frequently, especially in the case of a mismatch between needs and working conditions (Piotrowski, Poklek 2014).

Due to the fact that the NEO-PI-R questionnaire, in addition to the main dimensions of personality, makes it possible to diagnose individual subfactors, in the later stages of statistical analyses it was checked how these subfactors are related to the *sense of self-efficacy*. Table 2 presents the results of the analysis of the component correlations of *neuroticism* and *sense of self-efficacy*.

Table 2. Medians, standard deviations and R-Pearson's correlation coefficients between the components of *neuroticism* and *sense of self-efficacy*

| | Fear M = 13.87 SD = 4.54 | Aggressive hostility M = 12.67 SD = 4.56 | Depression M = 13.26 SD = 4.37 | Excessive self-criticism M = 14.79 SD = 3.87 | Impulsive- ness M = 15.00 SD = 3.53 | Over-sensi- tivity M = 11.73 SD = 4.95 |
|---------------|--------------------------------|---------------------------------------------------|--------------------------------------|-------------------------------------------------------|----------------------------------------------|-------------------------------------------------|
| Self-efficacy | -0.33* | -0.22* | -0.26* | -0.25* | -0.26* | -0.32* |

* $p < 0.01$

Source: own study.

All components of *neuroticism* correlate to a similar extent with the *sense of self-efficacy*. The higher result in the individual subfactors of *neuroticism*, the *sense of self-efficacy* decreases. The correlations between the components of *extroversion* and the *sense of self-efficacy* are shown in Table 3.

Table 3. Medians, standard deviations and R-Pearson's correlation coefficients between the components of *extroversion* and *sense of self-efficacy*

| | Cordiality M = 18.89 SD = 4.68 | Sociability M = 17.52 SD = 4.52 | Assertiveness M = 16.46 SD = 3.42 | Activity M = 17.53 SD = 3.77 | Seeking experience M = 16.27 SD = 4.00 | Positive emotions M = 17.47 SD = 3.87 |
|---------------|--------------------------------------|---------------------------------------|-----------------------------------------|------------------------------------|-------------------------------------------------|------------------------------------------------|
| Self-efficacy | 0.23** | 0.04 | 0.17* | -0.27** | 0.17** | 0.23** |

* $p < 0.05$; ** $p < 0.01$

Source: own study.

The analyses conducted found that virtually all components of *extroversion* (except *sociability*) are related to the *sense of self-efficacy*. Interestingly, the positive direction of the relationship between these variables is not confirmed for *activity*, as with an increase in activity, the *sense of self-efficacy* decreases. This may be connected to refraining from activities that do not lead to success. Table 4 presents the correlation coefficients between the components of *openness* and the *sense of self-efficacy*

Table 4. Medians, standard deviations and R-Pearson’s correlation coefficients between the components of *openness* and *sense of self-efficacy*

| | Imagination M = 15.85 SD = 3.36 | Aesthetics M = 15.51 SD = 4.16 | Feelings M = 17.59 SD = 3.85 | Actions M = 15.94 SD = 3.85 | Ideas M = 17.05 SD = 3.97 | Values M = 18.14 SD = 3.34 |
|---------------|---------------------------------------|--------------------------------------|------------------------------------|-----------------------------------|---------------------------------|----------------------------------|
| Self-efficacy | 0.19** | 0.08 | 0.15* | 0.11 | 0.28** | 0.20** |

*p < 0.05; **p < 0.01

Source: own study.

With the increase in the components of *openness*, the *sense of self-efficacy* increases, while *aesthetics* and *action* to a small extent are related to the analyzed variable. The obtained R-Pearson’s correlation coefficients between subfactors of *agreeableness* and the *sense of self-efficacy* are shown in Table 5.

Table 5. Medians, standard deviations and R-Pearson’s correlation coefficients between the components of *agreeableness* and the *sense of self-efficacy*

| | Trust M = 17.07 SD = 4.14 | Straightfor- wardness M = 17.90 SD = 4.35 | Altruism M = 19.01 SD = 4.35 | Compliance M = 16.56 SD = 3.75 | Modesty M = 17.26 SD = 3.68 | Tendency to be emotional M = 16.65 SD = 3.20 |
|---------------|---------------------------------|----------------------------------------------------|------------------------------------|--------------------------------------|-----------------------------------|-------------------------------------------------------|
| Self-efficacy | 0.14* | 0.01 | 0.13* | -0.02 | -0.08 | 0.17* |

*p < 0.05

Source: own study.

The components of *agreeableness* seem to be least related to the *sense of self-efficacy*. The obtained correlation coefficients are low or statistically insignificant. In the last step of the correlation analysis it was verified how subfactors of *conscientiousness* are related to the *sense of self-efficacy*. The results are presented in Table 6.

Table 6. Medians, standard deviations and R-Pearson’s correlation coefficients between the components of *conscientiousness* and the *sense of self-efficacy*

| | Compe- tence M = 19.45 SD = 4.40 | Tendency for order M = 19.32 SD = 4.43 | Dutifulness M = 21.10 SD = 5.07 | Striving for achie- vements M = 18.86 SD = 3.90 | Self-disci- pline M = 20.09 SD = 4.74 | Prudence M = 17.17 SD = 3.65 |
|---------------|-------------------------------------------|-------------------------------------------------|---------------------------------------|-------------------------------------------------------------|------------------------------------------------|------------------------------------|
| Self-efficacy | 0.23** | 0.23** | 0.25** | 0.25** | 0.30** | 0.14* |

*p < 0.05; **p < 0.01

Source: own study.

We note that the components of *conscientiousness* are these personality variables, which are to the highest degree related to the *sense of self-efficacy*. The fact that almost all are correlated at a similar level is interesting (the exception is *prudence*). With the increase of individual subfactors of *conscientiousness*, the *sense of self-efficacy* increases.

In reference to hypothesis 1, it should be considered partially confirmed. Extroversion, openness, agreeableness (in a statistically insignificant way), and conscientiousness are related sufficiently, and neuroticism is negatively related to the sense of self-efficacy (see Table 1).

As for subfactors of neuroticism, then all are related negatively and in a statistically significant way with the sense of self-efficacy (see Table 2). An interesting relationship can be seen in conjunction with the subfactors of extroversion with the measured dependent variable. Components of extroversion, such as cordiality, assertiveness, seeking experience and positive emotions are positively related in a statistically significant way, and activity negatively with the sense of self-efficacy (see Table 3). All subfactors of openness are positively related (not all in a way exceeding the level of statistical significance) with the sense of self-efficacy (see Table 4). The components of agreeableness are least related to the sense of self-efficacy (see Table 5). However, all components of conscientiousness are related positively and in a statistically significant way with the measured dependent variable (see Table 6). Therefore, hypothesis 2 can be considered partially confirmed.

Since the correlation analysis itself does not indicate the direction of the relationship between variables, linear regression analysis was performed using the ENTER method, in which the dependent variable was the level of the *sense of self-efficacy* and the predictors were the major personality traits: *neuroticism*, *extroversion*, *openness*, *agreeableness*, and *conscientiousness*. The resulting regression coefficients are shown in Table 7.

Table 7. Regression coefficients obtained in the model. Independent variables: the main personality traits, dependent variable: sense of self-efficacy

| | B | SD | β | t | p |
|-------------------|-------|------|---------|-------|------|
| Free expression | 25.57 | 5.33 | | 4.79 | 0.00 |
| Neuroticism | -0.05 | 0.02 | -0.20 | -2.31 | 0.02 |
| Extroversion | 0.01 | 0.02 | 0.02 | 0.37 | 0.71 |
| Openness | 0.09 | 0.03 | 0.21 | 2.89 | 0.01 |
| Agreeableness | 0.05 | 0.02 | 0.15 | 2.13 | 0.03 |
| Conscientiousness | 0.04 | 0.02 | 0.16 | 1.79 | 0.07 |

Source: own study.

The analysis of regression analysis showed that the personality explains 16% of variability in the *sense of self-efficacy* (adjusted R² amounted to 0.159). The resulting model is well suited to the variables and allows to predict the dependent variable better than the median: $F(5, 185) = 9.34$; $p < 0.001$. *Neuroticism*, *openness* and *agreeableness* is these personality that enable to predict the *sense of self-efficacy* of penitentiary staff to the best degree. The higher the level of *openness* and *agreeableness*, and the lower neuroticism is the higher the *sense of self-efficacy*. Michalik and Toeplitz (2012) obtained similar results of research. Persons achieving professional success are not only higher levels of *self-efficacy*, but also a higher level of *openness* and *conscientiousness*, and lower levels of *neuroticism*. In addition, they also cope better with stress. Due to the fact that the study uses a survey questionnaire, which in addition to the main dimensions of personality is able to identify the level of the individual subfactors, then at the last stage of statistical analysis it was verified how subfactors of personality affect the *sense of self-efficacy*. Due to the fact that the NEO-PI-R questionnaire has 30 scales, the STEPWISE method was applied. The definitely established model of regression analysis of statistically significant predictors are presented in Table 8.

Table 8. Regression coefficients obtained in the model. Independent variables: personality subfactors, dependent variable: sense of self-efficacy

| | B | SD | β | t | p |
|----------------------|-------|------|---------|-------|------|
| Free expression | 33.07 | 2.16 | | 15.29 | 0.00 |
| Hypersensitivity (N) | -0.22 | 0.09 | -0.12 | -2.55 | 0.01 |
| Imagination (O) | 0.37 | 0.10 | 0.23 | 3.70 | 0.01 |
| Impulsiveness (N) | -0.25 | 0.11 | -0.16 | -2.36 | 0.02 |
| Anxiety (N) | -0.20 | 0.09 | -0.16 | -2.23 | 0.03 |

Source: own study.

As a result of regression analysis it was found that the subfactors having the greatest effect on the *sense of self-efficacy* are the traits from the group of *neuroticism* (in Table 8 as “N”) and the subfactor *openness* (*imagination*). These four subfactors allow to explain to the same degree the sense of self-efficacy as the main personality traits (adjusted R² amounted to 0.158). Along with the decrease in the level of traits from the group of *neuroticism* (*hypersensitivity*, *impulsiveness*, *anxiety*) and the increase of the factor of *openness* which is *imagination*, the *sense of self-efficacy* in penitentiary staff is growing. The greatest impact on the sense of self-efficacy is indeed *imagination* (as denoted by the Beta parameter). The resulting final model of regression analysis is well suited to variables and allows to predict the dependent variable: $F(4, 186) = 13.81$; $p < 0.001$.

Due to the exploratory nature of this study and the lack of references to other works, no hypothesis was established as to which subfactors of personality affect the sense of self-efficacy. The studies indicate that the sense of self-efficacy in prison personnel is mostly affected by subfactors from the group of neuroticism.

Discussion of the results and conclusions of the study

The study was to determine how the personality of penitentiary staff is related to the sense of self-efficacy. The effective performance of duties in this difficult profession requires a certain personality profile. The sense of self-efficacy is constructed on the basis of the actions taken and their results. Officers achieving professional success have a higher sense of self-efficacy. It is related to high *extroversion*, *openness*, *conscientiousness*, and with a low level of *neuroticism*. Due to the *sense of self-efficacy* being a factor that protects against stress and occupational burnout (Piotrowski 2010), it is worth paying attention to its level in the selection of candidates for this service, all the more that the survey itself takes no more than 5 minutes. One should also consider what personality profiles will be standard for officers from different departments. This can be done by comparing the data on the course (effectiveness, successes, and failures) of the service and diagnosis of personality traits. It can take place cyclically through occupational psychologists in the Regional Inspectorates of the Interior. Establishing such profiles will in the future facilitate the selection of officers and enable to strengthen and support them adequately, so that their service is even more effective. The practical implications of the study may increase the efficiency of the personnel, and in effect the penitentiary system, by specifying the criteria for recruitment and qualification of personnel to penitentiary institutions. Here emerges the inclusion of the Central Training Center of Prison Service in Kalisz in constructing training programs allowing to increase *the sense of self-efficacy*. By relying on the positive psychology of work, one can increase the potential of the human capital of the Prison Service, on which the entire process of penitentiary interactions is based. As shown by the already verified training programs, it is possible to implement discoveries of the positive psychology of work for the needs of the prison system (Plummer-Beale 2014).

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