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## The structure of the teacher Machiavellianism model in social interactions in a school environment

**Abstract** The aim of this article is to present study results concerning the structure of teacher Machiavellianism. Machiavellianism was researched extensively throughout the last 40 years as a personality feature comprising traits related to leadership manipulation tactics. Psychology describes Machiavellianism as a part of the universal model called “the dark triad of personality” alongside with subclinical narcissism, subclinical psychopathy and low empathy. The teacher Machiavellianism model presented in this article, as opposed to the universal models, strongly accentuates the context-specific variables related to the organization of life in a school, alongside with personality variables. To achieve a new insight into the mechanism of how teacher Machiavellianism is generated, structural equation modeling (SEM) was used, which incorporates personality variables such as: self-efficacy, disposition for gratitude, values, one’s personal resources, professional burnout, alongside context-specific variables like: organizational culture, work attitude, tenure and specialization in the tasks performed. Results of two studies are shown, discussing the empirical structure of teacher Machiavellianism components in relation to the initial theoretical model.

**Key words:** teacher personality, Machiavellianism, the Dark Triad, structural equations modeling.

Machiavellianism is a psychological concept that defines the human being as someone who in interaction with others is highly egoistic and deceitful, and whose interpersonal style is based on falsehood and manipulation (Jones, Paulhus 2009; Rauthmann, Will 2011). Research on Machiavellianism developed in various areas of science, such as social and personality psychology, psychiatry and clinical psychology. Machiavellianism was treated as a dimension, not related to pathology, and thus was examined in the general population in many common situations where, according to the ideas of Nicollo Machiavelli (1513/1998), a pragmatic and rational approach of sustaining power is applied that is “based entirely on expediency and is devoid of the traditional virtues of trust, honor, and decency” (Wilson, Near, & Miller 1996, p. 285).

The term “Machiavellianism”, defines a personality syndrome that incorporates interpersonal manipulation in order to achieve set goals, and was introduced into psychology by Richard Christie. In the classic *Studies in Machiavellianism* (Christie, Geis 1970) Machiavellians

were characterized as people who in general perceive others in a negative way, as weak and untrustworthy, and pragmatic morality enables them to follow the rule that “the aim justifies the means”. The dominant symptom is coldness, implying emotional detachment, lack of empathy and not considering the needs and aims of a partner. Early research proved that Machiavellians not only have a common perception system, but also eagerly try to manipulate their partners, use lies, deception and cheating in situations where it is profitable for them and increases the chances of reaching their goals. It may be said that a Machiavellian is capable of acting unethically every time it will pay off (Pilch, 2008, 2012).

Even Christie highlighted the fact that Machiavellians have an upper hand in a certain type of situations: when direct contact with the partner is possible and they have full freedom to act, while their partner is in an emotional state. The strategy used by Machiavellians in order to achieve set goals at the expense of their partners may be weighed against the pro-social strategies of non-Machiavellians,

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which in turn enables a comparison of their effectiveness in various types of tasks and conditions (Kessler et al 2010; Hsi-Sheng, Ji-Kang 2012).

Although for a long time Machiavellianism was treated as a personality dimension not associated with pathology, studies of subclinical forms of psychopathy in the general population, initiated under the influence of Hervey Cleckley (1982), showed similarities in both constructs. The term 'psychopathy' describes pathological personality traits, heavily linked with anti-social behavior; thus the initial research on psychopathy was undertaken on an overtly anti-social population. The tendency to seek touch points between Machiavellianism and subclinical psychopathy was growing more and more popular.

Amongst the various contemporary conceptualizations of psychopathy acknowledging that at its core lies a certain type of deficit, one may distinguish those that accentuate the role of affective deficits (Lykken 1995) and conceptualizations that emphasize the role of cognitive deficits (Patterson, Newman 1993). Cleckley stated that psychopaths are seen in almost any occupation at many levels of the social ladder. Certain traits of a psychopath, such as personal attractiveness or lack of fear may be deemed useful in certain professions (lawyer, politician, businessman). Research on psychopaths in the general population, which includes those that achieved success in their respective arenas, can prove useful when examining the factors that protect from engaging in anti-social or pro-social behaviors.

The list of traits proposed by Hervey Cleckley (1982), which depicts an abnormal personality and includes personality features as well as behavioral criteria, gave an impulse into searching for homogenous diagnostic criteria of what is called an anti-social personality disorder (APD), as well as for a multi-dimensional structure of Machiavellianism and its subclinical personality correlates in the form of psychopathy. Nowadays, psychopathy is treated as an extreme point on a continuum, not a separate category. Besides the dominating two-factor conceptualization first formulated by Robert Hare (Hare, Neumann 2006), three-factor (Cooke, Michie, Hart 2001) and four-factor (Patrick, Fowles, Krueger, 2009) conceptualizations were introduced describing psychopathy as a constellation of four aspects: interpersonal, affective, lifestyle and anti-social behavior. In effect, thanks to McHoskey, Worcel and Szyarto (1989), the first integration of both constructs was made possible, followed by a definite integration in the conceptualization of Paulhus and Williams (2002).

Paulhus and Williams (2002) integrated Machiavellianism (MACH scale), subclinical psychopathy and subclinical form of narcissism into the scope of their interest, calling all three of these constructs the *Dark Triad*. These researchers aimed at proving that the three constructs are identical. In the "Dark Triad" study, psychopathy and Machiavellianism

was proved to overlap repeatedly, although the strength of this bond relies heavily on the measure of psychopathy used (Jakobowitz, Egan 2006; Jonason, Koenig, Tost 2010; Jonason, Kavanagh 2010). Even though the goal set by the *unificationist theory* believers (Paulhus, Williams, 2002; Jones, Paulhus, 2009) has not been achieved, the idea of studying a set of three traits attributed to people who are insensitive, malevolent, and pursue egoistic aims at the expense of their partners, was universally adapted.

There is no doubt that Machiavellianism and psychopathy are used to describe highly egoistic individuals inclined towards unethical acts and exploitation of others. However, an assumption that Machiavellians will never help or are incapable of cooperating with others has no proof in reality (Berezkei, Birkas, Kerekes 2010). Machiavellians are capable of altruistic acts, but mainly when their "altruism" is announced publicly as a means of increasing their status in a group or for future profits. Similarly, Machiavellians will cooperate if the situation calls for it (Lyons, Aitken 2008; Hawley 2003). Thus, the ambiguity of the study results on Machiavellianism in a psychopathic context becomes understandable, after including the fact that it is a multi-aspect and largely contextually determined category of personality to a larger extent than it was previously considered by researchers (Kessler et al 2010; Rauthmann, Will 2011).

Machiavellianism manifests itself in a variety of ways, depending on the situation, and the behaviors and attitudes associated with it reach far beyond simple cheating and manipulation. In different social, institutional and organizational environments attitudes revealed by people interact with diverse personality variables (Simonson 1988). Hence, the next step in developing the Machiavellian theory should be trying to find Machiavellian models in specific organizational, institutional and occupational contexts (Kessler et al 2010). At the very abstract level of general populations, disregarding specific contexts, the Machiavellian theory cannot be a reliable predictor of human behavior (Rautmann, Will 2011). This article aims at presenting a new model of Machiavellianism restricted to teachers in a school environment, including the specific, personal environment conditions as a context for displaying Machiavellian tendencies.

### **Teacher Machiavellianism in social interactions in a school environment**

Machiavellianism in social interactions in a school environment is a typical psychological and social phenomenon that eludes the traditional Machiavellian models aimed at explaining behaviors in the general population. Teacher Machiavellianism is context-specific, because a school is a social environment where a specific occupational lifestyle is present (student and school surrounding interactions). Teacher Machiavellianism is

an *organizational Machiavellianism*, meaning that the use of manipulation is not only justified, but is also necessary to achieve the goals set in the school environment context (Kessler et al 2010). Organizational Machiavellians are people who are comfortable with an exploitation of others and do so whenever it is profitable. The essence of organizational Machiavellianism is using manipulation and deceit when the situation calls for it. These types of Machiavellians are not necessarily heartless, cold and calculated, because in favorable situations they may present amenity and tact.

In the broad sense, teacher Machiavellianism as a form of organizational Machiavellianism is an integral part of the teacher profession, in that being a teacher more or less implies manipulating others. A new teacher starting work at a school tries to find a mentor who would facilitate blending into the new environment. Only when one achieves a certain level of organizational affiliation will it be possible to have any social influence on others. Upon entering the organization, the teacher's identity solidifies through adapting the organizational ideology of influencing other people, initially deemed as different. (Tuohy 1999). Individuals do that because they feel responsible for the ideas and norms advocated by the organization they wish to be a part of. Norms and ideas are the declared school programs, as well as the norms and ideas hidden between the lines in textbooks or the everyday school life. In this case, teacher Machiavellianism is an attitude displayed after adapting to the organizational culture of the educational environment and the school-specific context.

Another source of teacher Machiavellianism are survival strategies (Tuohy 1999), which are the foundation for adapting to certain school situations and teacher-specific tasks. The basis of many teacher actions is their own well-being, for instance, according to the cognitive-dissonance theory, maintaining an optimal difference between the ideal and the pragmatic ego. A teacher will attempt to minimize stress, evade situations that may lead to it, maximize good mood, independency and autonomy. *Resiliency* as a personal trait enabling a teacher to survive in a school environment is a socially-constructed category (Quing, Day 2007), and Machiavellianism is an integral part of resiliency.

At the source of Machiavellian behaviors, internalized programs of effective actions may be present, including unconscious feelings and beliefs of teachers concerning the human nature, the essence of power and effective actions towards students. They exist in the minds of individuals regardless of their conscious and accepted beliefs and student plans (Day 1999). In this case, Machiavellianism is a function of the mental image of students as partners for interaction.

Another source of teacher Machiavellianism is the pervasive Machiavellianism in students as the main partners of social interactions at school (Barry et al 2011). Machiavellianism is not constricted by one's age and may

manifest itself at any age. The recipients of Machiavellian behavior among students are their peers (Andreou 2004) as well as teachers. The problem of child Machiavellianism was discussed by R. Christie and F. Geis (1970). Nachamie (1970) constructed a special child Machiavellianism scale (*Kiddie Mach Scale*), which may be given to 11-year olds. Machiavellian strategies are more often used by children whose parents scored high on the Machiavellian scale, as opposed to children whose parents did not present typical Machiavellian traits (Krauta, Price 1976). Teachers possessing Machiavellian traits on one hand can "teach" students these types of behavior through modeling, and on the other use these strategies as a form of defense against Machiavellian students. Machiavellian students and the behavior they present is described by teachers as a risk factor belonging to their work at school.

The last potential source of Machiavellianism in teachers are educational reforms introduced on the national level (Kwieciński 2000, Day 2009, Day et al 2007). These factors of educational change occurring in the school "surrounding", even though aimed at improving the standards of teaching and learning as well as increasing student achievements, in the increasing unstable and turbulent economical and social environment, may in fact be perceived as counterproductive by those who are responsible for implementing these changes. When there is an abundance of reforms and changes in the education policies at the national level, Machiavellian tendencies seem to rise with ease as an adaptive reaction of teachers to new challenges, duties and responsibilities. In the times of professional jeopardy and ambiguity, the criteria of professional competence are tilted towards bureaucracy and Machiavellianism.

Research presented in the second part of the article aims at presenting the structure of teacher Machiavellianism of Polish teachers in social interactions of a school environment. It relies on three assumptions. Firstly, there are specific personality predispositions of teachers which distinctively influence Machiavellian behavior in a school environment. Secondly, there are context-specific predispositions pertaining to the work environment that influences Machiavellian behavior the strongest. Thirdly, in a school environment, there are various models of Machiavellianism created and there are various ways it affects social interactions. The desired aim of the presented data will be to propose a new psychological model of Machiavellianism at school as an institution of late modernism.

### **A theoretical model of predictors and components of teacher Machiavellianism**

The research presented here attempted to find a dependency model of Polish teacher Machiavellianism in relation to three groups of variables: 1 – the teachers'

personality characteristics, 2 – context-specific factors related to the individual's resources, and 3 – intervening-demographic factors.

Based on the theoretical premise, the study adopted an approach that the most important personality variables that are potentially the strongest indicators of teacher Machiavellianism are: self-efficacy, professional burnout, disposition for gratitude, universal and instrumental values, as well as satisfaction from reaching the goals set. An assumption was made that a teacher carries out his or her role basing on acquired knowledge (through education) and on a preconception of the role. One's personality determines the individual ways of implementing these views, ways of implementing them, and the intensity of reacting to the surrounding world. Self-efficacy is a specific belief that enables an individual to successfully engage in any given activity. A hypothesis was adopted that people with low self-efficacy will present stronger Machiavellian tendencies. Machiavellianism can be an easy escape route for individuals who do not feel confident enough about their pedagogical skills.

When it comes to values, an approach was adopted that they may be a strong indication of Machiavellianism, because people with set values that frequently rely on them should be less prone to several problems, including student Machiavellianism. Their actions are strongly rooted and rigorously aim at reaching previously set goals. The level of Machiavellianism in this configuration should negatively correlate with universal values. According to theoretical premise, in the adopted approach professional burnout is considered a potential strong indicator of Machiavellianism. The depersonalization factor in professional burnout is expected to facilitate acts of Machiavellianism, and people

who already present a disposition for Machiavellianism should, in theory, be more prone to the professional burnout syndrome. The last personal variable adopted as relevant for this model of predicting and explaining teacher Machiavellianism is the satisfaction of reaching professional goals.

In the case of context-specific factors an assumption was made that individuals with a high level of personality resources have a higher stress resistance and do not suffer from work-related problems. Individuals with a low level of personality resources are expected to manifest stronger Machiavellian tendencies. As for other context-specific variables based on the above theoretical assumptions, Machiavellianism increases in successive levels of education and in relation to the type of school (occupational vs. general).

Another factor that may explain the increase and execution of Machiavellian tendencies by an individual is work experience. It is related to the tenure (length of employment) and the professional status one has achieved. With growing experience over the years of one's work, new educational methods are implemented, thus increasing professional self-efficacy, freeing an individual from the temptation of using Machiavellian strategies.

Based on a theoretical analysis and the adopted assumptions, a new hypothetical model of variable interdependency was created (Fig. 1), which was empirically verified in the successive steps of the study. This model presents hypothetical relations between Machiavellianism, professional burnout, satisfaction from reaching set goals and the level of self-efficacy. Machiavellianism, as well as self-efficacy, are both a predictor and an effect in this model (Frazier et al 2004).

## Method

### Selection of subjects

The selection of the sample was nonrandomized and the study used volunteers. A list of attributes was made for a typical Polish teacher and that was the basis for the sample structure. 400 surveys were distributed, but because of their size and time needed to fill out one survey (about 45 minutes), only 44% were sent back completed – participation in the research was completely voluntary. Eventually, 179 teachers took part in the survey. Among them 154 were women (86%), 24 were men (13.5%), and 1 person did not answer the sex question (0.5%). The subjects were 22 to 60 years old. The average age was 37.8 (SD = 8.99). The tenure of the subjects was between 1 to 4 years (M = 13.8; SD = 9.25).

### Measures

To measure Machiavellianism, the Teacher Machiavellianism Scale (Orłowski, Bańka 2006) was constructed. The scale consists of three factors. The first factor, called

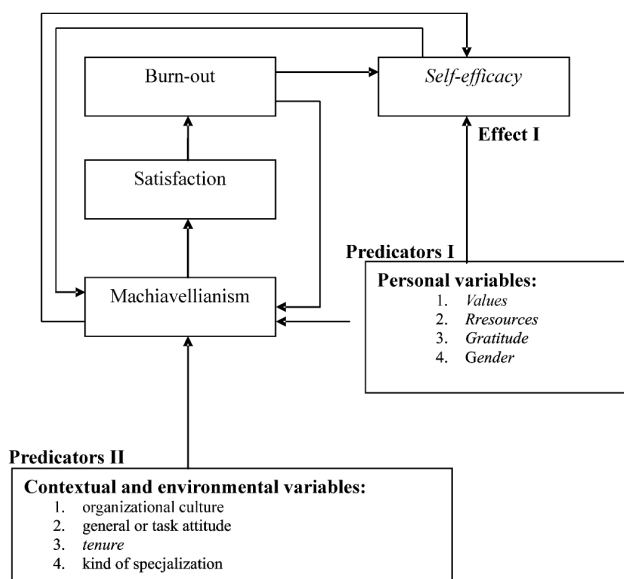


Figure 1. The theoretical model of dependency between variables as predictors of teacher Machiavellianism in social interactions in a school environment.

„Beliefs on the Human Condition”, consists of 9 items. The second one, called “Morality”, consists of 4 items. The third factor, “Tactics”, consists of 5 items. The results in relation to the factor structure are similar to the classic results of the MACH scale. overall scale reliability, measured by Cronbach- $\alpha$ , is 0.78. In an additional verification performed with a confirmatory factor analysis the result was as follows:  $Chi^2=274.58$ ,  $df = 135$  ( $p=0.000$ );  $GFI = 0.86$ ;  $AGFI = 0.88$ .

Teacher self-efficacy was measured with the Teacher Self-Efficacy Scale constructed by Karol Orłowski. It consists of four factors. The first factor consists of 18 items and measures the “General Sense of Competence”. The second factor is called the “General Communicative Abilities” and consists of 13 items. The third factor, called „Coping in Difficult Situations”, consists of 13 items, and the fourth factor consists of 16 items. Factor loadings are in the range  $<0.376; 0.733>$ . The overall scale reliability, measured by Cronbach- $\alpha$ , is 0.83.

Disposition for gratitude, defined as a general tendency of recognizing and responding with gratitude to people in exchange for their positive support, was measured with the Polish version of the McCullough, Emmons and Tsanga (2002) *The Grateful Disposition Scale – GQ-6*. Subjects responded on a seven-point scale, where: 1 – I disagree completely, 7 – I agree completely. The Cronbach- $\alpha$  for the six-item scale is 0.795. A confirmatory factor analysis showed high coefficients of convergence of the single factor model ( $GFI = 0.97$ ,  $AGFI = 0.86$ ,  $Chi^2 = 14.2$ ,  $df = 2$ ,  $p < 0.001$ ).

Values were measured with the classic Rokeach Value Survey (RVS), including the terminal values subscale. The psychometric properties of the Rokeach Value Survey have been analyzed numerous times (Debats, Bartelds 2005).

Personal resources were measured with the Personal Resources Inventory constructed by Ed Diener, Frank Fujita (1995), consisting of 21 resources declared as relatively constant personal and social factors that influence the way an individual copes with life crises and stress transactions. These resources are threefold: tangible property, e.g. money, the social roles carried out, e.g. being a chairman of an organization, and personality traits, e.g. intelligence.

For a measurement of professional burnout, a Polish adaptation (Sęk 2004) of the standard, 22-item MBI inventory was used. The Cronbach- $\alpha$  for this test is for the interval  $<0.71; 0.9>$ . The lowest reliability was revealed by the depersonalization subscale. Satisfaction from reaching the goals set was measured by 2 items (9 and 19) from the MBI scale.

## Results

### Study I

Empirical data gathered with the use of the previously mentioned methods served to verify the theoretical teacher

Machiavellianism model presented in Figure 1. This model encapsulates the relations between every variable and the way they affect each other. The main variables of the model are: self-efficacy, Machiavellianism, professional burnout and satisfaction from reaching set goals. Other variables, such as type of school, tenure, work status, preferred values, one’s personal resources, disposition for gratitude and sex, are seen as factors affecting the main variables. In order to verify the model, while analyzing all the relations between the variables, the technique of path analysis and Structural Equations Modeling (SEM) was used. SEM allows the researcher to simultaneously analyze a whole set of regression equations. It is one of the most advanced techniques of path analysis. For empirical verification of the theoretical model AMOS was used as part of the path analysis of the SPSS. Analytical capabilities given by the Structural Equations Modeling to shed new light on teacher Machiavellianism.

Because every variable needs to be expressed as a separate object in AMOS, the previously proposed model needed to be tweaked. The result of using the procedures, i.e., the new model, is presented in Figure 2.

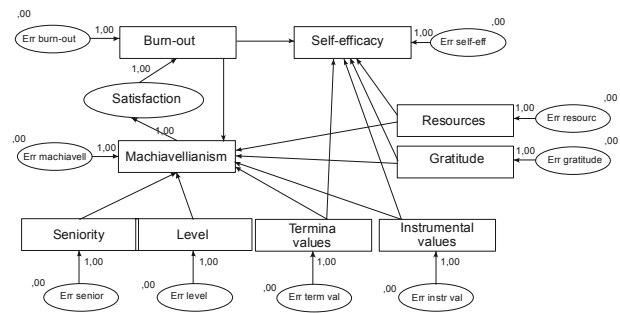


Figure 2. Dependency model between teacher Machiavellianism variables in path analysis.

Qualitative variables like sex and the type of school were not directly incorporated into the model. It is because these are variables measured by a nominal scale, thus unnecessarily complicating the analysis process. However, to check if they affect the model, a selection of data was made for the particular values and, for instance, the same model was tested separately for men and women and the values were compared.

Empirical verification of the initial theoretical model proves that it does not match the empirical data gathered from the teacher sample at a satisfactory level. Values of the model’s affinity index are not high:  $Chi^2 = 168.82$  for  $p < 0.05$ ,  $CFI = 0.329$ ,  $RMSEA = 0.195$ . Based on the presented data, it may be concluded that the model initially proposed did not pass the verification. We started to look out for a sub-model that would be satisfactory from the goodness-of-fit index standpoint.

**Study II**

Searching for a new model that would fit the empirical reality better is about eliminating variables that proved to have insignificant influence.

The model that was approved as the final version is depicted in Figure 3. The following variables were eliminated from it: instrumental values, disposition for gratitude, tenure, work status. The age of the teachers proved to be a much better fit than the last set of mentioned variables. For the relation between variables one was especially significant – the relation between one’s personal resources and professional burnout.

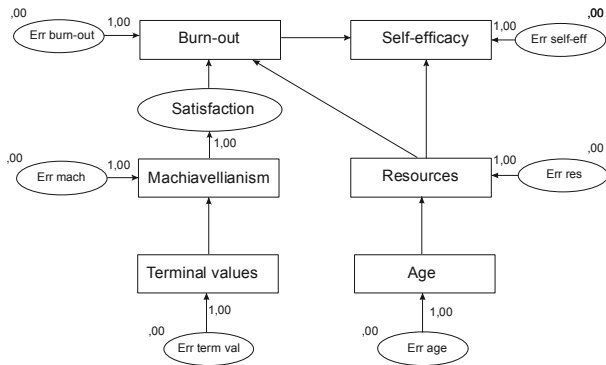


Figure 3. Modified dependency model between teacher Machiavellianism variables.

In the modified model, the goodness-of-fit index is high enough to warrant a statement that the empirical data is suitable for the dependency model:  $Chi^2 = 8.133$  for  $p < 0.52$ , CFI=0.93 and RMSEA= 0.08. The  $Chi^2$  result is statistically insignificant, which means there is no difference between the data gathered the survey and the theoretical dependencies forced by SEM. The same graph of dependency between the variables of the modified model expressed in the standardized regression coefficient index is shown Figure 4.

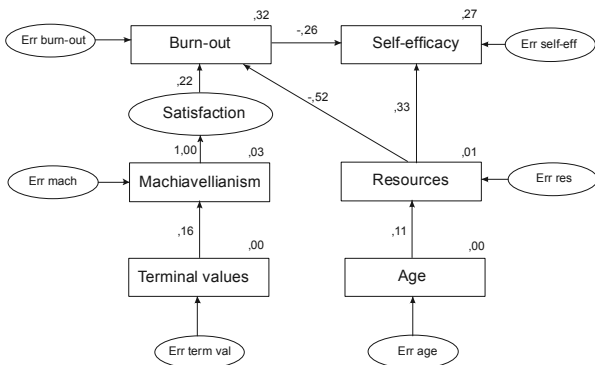


Figure 4. Results of the path analysis in the modified dependency model between teacher Machiavellianism variables expressed in standardized regression coefficients (values above the rectangles standing for dependent variables indicate R<sup>2</sup> coefficients).

Regardless of the fairly high goodness-of-fit coefficients, the R<sup>2</sup> values in the model for each variable are not particularly high. This indicates still the need to find other predictors that influence the most essential Machiavellian model variables. The results gathered after the path analysis indicate that one’s resources influence the self-efficacy (0.33), as well as the professional burnout level (-0.516). The more the resources one possesses, the stronger one’s self-efficacy is. An opposite dependency was observed for the influence of one’s resources on professional burnout, meaning the more resources one possesses, the lower is the level of professional burnout. It is consistent with one of the theoretical definitions of resources as a strategy for coping with stress. The professional burnout and the resources variables explain 27% of the self-efficacy variance. The influence of one’s age on one’s resources is from the statistical standpoint insignificant. However, the coefficient is positive and removing this variable from the model would weaken. Hence, an assumption may be made that one’s age correlates positively with the resources one possesses.

From the two groups of values tested in the model, the group of ultimate values had significant influence on the results. This variable consists of the sum of results from ten items that weighed the most. According to the model presented in Figure 4, their influence on Machiavellianism is small (0.17), but significant. Unfortunately, the R<sup>2</sup> value is very low here – 0.03. Machiavellianism increases when the most significant values are freedom, happiness and inner harmony, while it decreases in the case of national security, family and mature love. The result is consistent with the theoretical assumption that Machiavellians respect only those norms that further their cause and that their aim is often success in interpersonal quarrels. One may assume that the peculiar understanding of freedom and happiness as being able to do whatever one wants, regardless of other people, may be the reason for the obtained study results.

The next part of the model involves the influence of Machiavellianism on professional burnout through an unobserved variable – satisfaction from reaching the goals set. The regression weight equals 0.224 and is statistically significant. The hypothesis that an increase in Machiavellianism is followed by an increase in satisfaction from reaching set goals and simultaneously increases the level of professional burnout has been proven correct. The directly calculated correlation coefficients confirm it as well.

Machiavellianism is significantly correlated with professional burnout ( $r=0.267$ ,  $p=0.002$ ), but the strongest correlation is with the depersonalization subscale ( $r=0.433$ ,  $p=0.002$ ). An increase in Machiavellianism strengthens depersonalization, which is consistent with the conception of Machiavellianism that others are just objects that may be manipulated. Hence, depersonalization is necessary and inseparable from Machiavellian manipulation. Relations

with other human beings are void of emotional commitment, which depersonalization precisely achieves.

### Discussion

The gathered data, as well as the theoretical dependency model between variables, in the light of path analysis, correspond with each other. The coefficients obtained do not force a rejection of the analyzed model. Of course, in the light of the theoretical foundations of the analysis, one may think of various other alternative models that are a better fit to the gathered data, however, this one fits adequately enough to consider it valid.

The study results presented in this article primarily confirms the validity of the opinions of the researchers who declared that trying to find a general model of Machiavellianism to explain the phenomenon in every non-clinical population should be ended (Kessler et al 2010). Instead, our efforts should be directed into finding specific, optimal models explaining Machiavellianism in social interactions taking place in constricted social, occupational and institutional environments. The reasoning behind this argumentation relies on the fact that Machiavellianism is an elaborate phenomenon and is highly context-specific. Constructing a coherent and adequate empirical model of Machiavellianism is difficult even in the case of such a constricted social environment as a school and its teachers and students. The presented data confirms it more than enough. Even though the initial theoretical model was relatively simple (Study I), it turned out that it does not work well and does not reflect the reality, as diagnosed by the teacher sample. The working model of Machiavellianism turned out to be a much simpler system of interrelated personal and situational variables (Study II). However, even though the introduced system of variables was more simple than the initial model, it turned out to contain paradoxes that are difficult to explain.

Putting this into context of the result for the latent variable – “satisfaction from reaching the goals set” – is unclear. The relation of increase in Machiavellianism > increase in satisfaction > increase in professional burnout (see Figure 4) is illogical unless we adopt an opposite understanding that what is called “satisfaction” is indeed “anti-satisfaction”. In this case, if this variable has an inverted direction on the scale, everything falls back into its place, becomes logical and consistent with the theoretical foundations. Because the variable that is of impact in this part of the model is only suppositious, it might be rational to adopt the inverted scale variant.

Generally speaking, juxtaposing Machiavellianism, self-efficacy and professional burnout variables together with one’s own resources and values in one model has proven to be a valid assumption. According to the theory, one’s resources have proven to be a factor that prevents professional burnout. The higher the resource result, the lower the chances that the symptoms of professional burnout

syndrome appear (see Figure 4). In turn, the above also has an opposite effect on self-efficacy. The higher the level of professional burnout, the lower the self-efficacy. Personal resources not only help prevent professional burnout, but also positively stimulate self-efficacy. Machiavellianism goes hand in hand with professional burnout. Machiavellian manipulations further depersonalization and emotional burnout. The lack of correlation between age and Machiavellianism is in fact comforting, in that this variable does not increase with age, but rather depends on one’s personality predispositions and environmental factors.

Machiavellian result model (Study II) appeared to be simpler than expected, since certain variables previously deemed necessary proved otherwise. Interestingly, the disposition for gratitude was among them. Incorporating this variable into the model was based on a premise that individuals perceive their own success as related to other people’s efforts. Self-efficacy was to be based not only on one’s own achievements, but also derived from cooperating with others when solving work-related problems. Generally speaking, it is possible to expect that people with a high disposition for gratitude are directed to perceive their own lives as having a deeper meaning, with supernatural powers coming into play, like luck, fate, God, etc. It may be suggested that the lack of the influence from disposition for gratitude is derived from the preferred configuration of resources. It shows that teachers cannot count on others when it comes to solving problems at the workplace. Each teacher, when facing students, is in most cases alone and needs to solve student- or parent-related problems alone. There is no administrative backup, and all the colleagues are in a similar position. Therefore, any success one might achieve in such an environment will not be perceived as dependent on others, but as a direct result of one’s own effort and abilities.

Apart from that, the assumed direct dependencies between the significant model variables have not been confirmed, and particularly between values and Machiavellianism, Machiavellianism and self-efficacy, Machiavellianism and tenure, Machiavellianism of individuals with low and high level of personal resources. The lack of significant differences between Machiavellianism and the above variables may be an indirect proof that Machiavellianism is not a trait acquired through coping in certain conditions, but is a personality attribute that is independent from them. Conditions may facilitate the manifestation of Machiavellianism, but will not be its source.

Regardless of the above considerations, this dilemma, like other deviations from the expected results, indicates a need for further research that would eliminate the shortcomings of this study. The first limitation is among other things the validity and reliability of the measurement methods, for example the GQ-6 scale. Another limitation was the insufficient sample size, specifically, the small number of men participating in the study. However,

this limitation is very hard to eliminate, because this occupation is dominated by women. A very important conclusion derived from the presented data is the fact that structural equation modeling is a useful tool in studies on Machiavellianism.

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