

# Relationships Between Machiavellianism, Organizational Culture, and Workplace Bullying: Emotional Abuse from the Target's and the Perpetrator's Perspective

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**Abstract** Exposure to bullying at work is a serious social stressor, having important consequences for the victim, the co-workers, and the whole organization. Bullying can be understood as a multi-causal phenomenon: the result of individual differences between workers, deficiencies in the work environment or an interaction between individual and situational factors. The results of the previous studies confirmed that some characteristics within an individual may predispose to bullying others and/or being bullied. In the present study, we intend to clarify the relationships between workplace bullying considered from the victim's and the perpetrator's points of view, the employee Machiavellianism as a personality factor and the perceptions of organizational culture as depicted by Cameron and Quinn. The sample consisted of 117 workers, employed in different organizations in Poland. The empirical data regarding both being exposed to bullying as well as being a perpetrator of bullying were obtained by the use of self-reports from participants. According to the expectations, Machiavellianism predicted involvement in bullying others. The groups of bullies and bully-victims had a higher Machiavellianism level compared to the groups of victims and persons non-involved in bullying. The results showed that being bullied was negatively related to the perceptions of clan and adhocracy cultures and positively related to the perceptions of hierarchy culture. The results of a moderated regression analysis demonstrated that Machiavellianism was a significant moderator of the relationships between the perceptions of adhocracy and hierarchy cultures and

being bullied. Theoretical and practical implications of the results were discussed.

**Keywords** Bullying · Mobbing · Machiavellianism · Organizational culture · Personality · Workplace

## Workplace Bullying

Workplace bullying may be treated as a complex phenomenon. Its occurrence is connected with the victim's and the perpetrator's features, as well as with external conditions: features of the organization and properties of widely understood social environment. Research on workplace bullying appears under many different labels, however, it could be acknowledged that the terms *bullying* (Einarsen et al. 2003), *emotional abuse* (Keashly 1998), *mobbing* (Leymann 1990), and *workplace harassment* (Bowling and Beehr 2006) are synonymous. The following definition was accepted for the needs of the paper: “bullying has been defined as all those repeated actions and practices that are directed to one or more workers, which are unwanted by the victim, done deliberately or unconsciously, but clearly causing humiliation, offense and distress, and that may interfere with job performance and/or cause an unpleasant working environment” (Einarsen 1999, p. 17). Bullying includes different types of behavior, mostly of verbal character (indirect or direct, passive, or active), and only under rare circumstances is accompanied by physical violence (Keashly 1998). Workplace bullying “is not an either-or phenomenon, but rather a gradually evolving process” (Einarsen 1999, p. 19). Bullying occurrence, based on research, ranges from 1 % to over 40 %, depending on the method of measurement, kind of organization, and country (Matthiesen and Einarsen 2010; Zapf

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et al. 2010, pp. 90–96). Workplace bullying has negative consequences for affected individuals and the organization as a whole (Vartia 2001; Hoel et al. 2003).

Bullying can be understood as a multi-causal phenomenon: the result of individual differences between workers, deficiencies in the work environment or an interaction between individual and situational factors (Salin 2003). Different types of bullying are distinguished by researchers. Etiological explanations include dispute-related bullying (the result of strong interpersonal conflict), authoritative-bullying (the result of authority abuse), displaced-bullying (the result of transmitting aggression to the third party), discriminatory-bullying (the result of outsider-considered discrimination), and organizational-bullying (oppressive organizational practices) (Lutgen-Sandvik et al. 2009).

Researchers use two different strategies to measure bullying: via self-judgment based on a definition of bullying and via self-reported exposure to predefined negative and potentially harassing acts (Salin 2001). The instruments used to measure exposure to bullying in the workplace include different types of abusive behavior. For example, in the Negative Acts Questionnaire-Revised, 22-item instrument (Einarsen et al. 2009), personal bullying, work-related bullying, and physically intimidating forms of bullying were distinguished. Factor analyses of the Leymann Inventory of Psychological Terrorization (LIPT) identified seven factors. These are the following: attacking the victim with organizational measures (e.g., questioning a person's decisions), social isolation (e.g., refusal to be talked to), attacking the victim's private life (e.g., telephone terror), physical violence (e.g., sexual offers), attacking the victim's attitudes (e.g., religious or political attitudes), verbal aggression (e.g., verbal threats), and rumors (Zapf et al. 1996).

### Bullying and Personality

Most researchers believe that there is probably neither "victim's personality," nor "perpetrator's personality" (Leymann 1996; Zapf and Einarsen 2003). However, certain traits and behaviors (anxiety, submission, lack of assertiveness, avoiding conflict, aggressive communication, overachieving, lack of social skills, low or unrealistic high self-esteem, suspiciousness) are linked to being targeted (Lutgen-Sandvik et al. 2009; Einarsen 1999). More recently, some researchers have put forward a suggestion that personality traits may be viewed as a risk factor for exposure to bullying (Coyne et al. 2000; Glasø et al. 2007). Recent evidence suggests that "targets of workplace bullying seem to be submissive, anxious and neurotic, lacking social competence and self-esteem, and characterized by behavioral patterns related to overachievement and

conscientiousness" (Glasø et al. 2007, p. 315). However, some studies have found that a general victim personality profile may not exist (Glasø et al. 2007; Matthiesen and Einarsen 2001). The researchers discovered that only a subgroup of victims differed from non-victims on several personality dimensions. Other investigations have revealed only a weak relationship between personality and exposure to bullying (Lind et al. 2009).

The traits and behaviors associated with violent workplace behavior, such as lack of self-control, low empathy and perspective-taking, depressiveness, negative affectivity, Type A personalities, and unrealistic high self-esteem, may aggravate the probability of being the perpetrator of workplace bullying (Lutgen-Sandvik et al. 2009; Zapf and Einarsen 2003).

Aquino and Lamertz (2004) name two types of victims and two types of perpetrators of bullying at work. The domineering perpetrator harms others in order to emphasize his or her power, domination and control, whereas the reactive perpetrator reacts with aggression to violation of social exchange standards. On the other hand, in the group of victims there is the provocative victim—aggressive and hostile, and the submissive victim—passive, submissive, anxious, often rejected by peers. In the first case, the employee behaves in an irritating way, as for the second one—the victim has features making him or her vulnerable to victimization. However, the typology used in our study assumes that being a victim and being a perpetrator are not mutually exclusive. Studies on children (e.g., Andreou 2004) and adults (e.g., Lee and Brotheridge 2006) showed that some victims undertake the activities typical of perpetrators. Hauge et al. (2009) reported that in a large group of employees exposure to bullying behaviors was the most important predictor of being a perpetrator. Considering the above, the analysis of the bullying phenomenon in the workplace should cover four separate groups of individuals: victims (individuals who experience violence never being aggressors), bullies (perpetrators of violence who never experience violence themselves), bully-victims (being both perpetrators and targets), and individuals who are not involved in bullying. Studies on adults have demonstrated that bullies and bully-victims reveal a higher level of aggression, and bully-victims additionally show a low level of self-esteem (Matthiesen and Einarsen 2007). The recent studies have shown that workplace bullies and bully-victims are similar in relation to a number of other personality traits (Linton and Power 2013). The determination of the specificity of bully-victims compared to non-bully victims and non-victim bullies requires simultaneous measurement of the exposure to bullying and perpetration of bullying. Individuals classified to the group of bully-victims may also be described as provocative victims (Matthiesen and Einarsen 2007).

The personality of individuals involved in workplace bullying is usually not considered to be the leading determinant of this process. One of the reasons may be the fact that personality traits that have been analyzed so far cannot be usually considered to be characteristic for all perpetrators or all victims but only for their specific subgroup. In the case of the personality of perpetrators, the set of significant traits which may prove to be crucial for understanding the group specificity is the Dark Triad of personality (Machiavellianism, subclinical psychopathy, and subclinical narcissism) (Paulhus and Williams 2002). Despite their distinct difference, these traits are related by treating people like objects, manipulateness, and lack of empathy, which favors undertaking of the activities classified as bullying (Baughman et al. 2012). The second potential cause of the conviction regarding relatively low significance of the personality of the perpetrator and the victim as the factors explaining the bullying phenomenon may be the underestimation of the role of interaction between the traits of the individual and organizational or contextual factors. Certain bullying-related elements of work environment can prove significant only in the case when the employee displays a specific level of the trait or when he or she possesses a particular personality traits profile. Identification of personality traits which moderate relationships between organizational factors and the perpetration of bullying and/or being exposed to bullying may contribute to the better understanding of the role of the personality involved in workplace bullying.

### Bullying and Organizational Culture

Among the organizational factors influencing the frequency of bullying acts there are, among others, a chaotic and unpredictable work environment, reduced work control, role conflicts and role ambiguity, work changes, pressure of work, performance demands, interpersonal conflicts, destructive management style, low moral standard, organizational culture and organizational climate (Bowling and Beehr 2006; Matthiesen and Einarsen 2010; Agervold 2009; Harvey et al. 2008). Among the above-mentioned factors a significant place is occupied by organizational culture which may be related to bullying. In some cultures bullying and aggression may be considered to be an effective way of achieving goals. If management concentrates on effects disregarding the ways of their achievement, if the results of achieved effects are not considered with regards to the organization members, and if competition and fight are valued, consent to mobbing will be bigger (Aquino and Lamertz 2004). Organizational culture may allow certain forms of bullying (Salin 2003). Aquino and Lamertz (2004) mention two types of cultural

norms supporting bullying. Organizational culture may support aggressive behaviors if they are thought to be functional for motivating employees and if disrespectful behaviors and those harming others are tolerated and standards support incivility and rude behavior. Wright and Smye (1998) distinguished three types of culture connected with different forms of abuse: win/lose (forcing competition), blaming (making people fearful about stepping out of line), and sacrificing (sacrificing everything for work).

In the classification of organizational culture proposed by Cameron and Quinn, four types of culture are described. They occupy four quadrants created by two dimensions: (1) flexibility, discretion, dynamism—stability, order, control and (2) internal orientation, integration, unity—external orientation, differentiation, rivalry. In the previous study (Omari 2007), three out of those distinguished cultures were significantly related to bullying. Lower level of bullying was observed in clan culture (high flexibility, internal orientation), assuming concentration on the community of values and aims, preference for team work and friendly atmosphere, and in adhocracy culture (high flexibility, external orientation), characterized by supporting entrepreneurship, innovativeness, creativity, and risk tolerance. Both the above culture types are similar in terms of flexibility and freedom of action—the features which rather do not build favorable conditions for the occurrence of three types of abuse described by Wright and Smye. However, hierarchy culture (high stability, internal orientation) which is characterized by a high degree of formalization, hierarchization, control, and the necessity to undertake rivalry for the position in the hierarchic system was related to the higher level of bullying. To some extent, the features of this culture are convergent with the features of the two above-mentioned culture types which favor bullying: win/lose (competition) and blaming (strict rules). Similarly to hierarchy, market culture, which is the fourth of the organizational cultures described by Cameron and Quinn, is the culture inducing rivalry. However, this rivalry is rather directed outside toward members of other rival organizations.

### Machiavellianism

Machiavellianism is a personality syndrome, describing a duplicitous interpersonal style connected with cynical beliefs regarding people and the social world, pragmatic morality, and egocentric motivation (Christie and Geis 1970; Jones and Paulhus 2009; Wilson et al. 1996). Individuals high in Machiavellianism (high Machs) treat partners instrumentally and aim at realization of their own goals with every possible means, taking into consideration profit and loss account. They give high priority to money, power, and competition (Stewart and Stewart 2006).

Research confirms Machiavellians' tendency to engage in unethical behavior, among others at work (Bass et al. 1999; Kish-Gephart et al. 2010) as well as to lie and deceive (Kashy and DePaulo 1996). Christie believed that high Machs get what they want without having to resort to open aggression (Christie and Geis 1970). At present, there is no strong evidence that adult Machiavellians use overt aggression observed directly (Jones and Paulhus 2009), however, in self-report studies the Machiavellians admitted to hostile feelings and hostile behavior (Locke and Christensen 2007) as well as to verbal and nonverbal aggression in the work environment (Corzine and Hozier 2005). Research on children showed a positive relationship between Machiavellianism and aggression: the level of Machiavellianism was connected with both abuse and with being an object of aggression at school (Andreou 2004). It could be assumed that Machiavellianism may be positively related to being a perpetrator, especially in the situation where such a behavior could bring measurable profits. Recently, two research studies have investigated the relationship between bullying and Machiavellianism. Baughman et al. (2012) have found the association between Machiavellianism treated as a part of the Dark Triad of personality traits (Paulhus and Williams 2002) and bullying behaviors (direct and indirect), beyond a workplace setting. In another study (Linton and Power 2013), Machiavellianism was positively associated with both being a victim and being a perpetrator of workplace bullying.

Individuals low in Machiavellianism (low Machs) are prosocial, nonmanipulative, cooperative, and altruistic; they give priority to community building and family concerns (McHoskey 1999). Compared to high Machs, they are characterized by higher emotional intelligence (Pilch 2008). Low Machs are trustful and may be seen as gullible and avoiding conflict (Christie and Geis 1970), and the strategies of social conduct used by them may encourage exploiters to achieve goals at their expense. It is possible that Machiavellianism is negatively connected with being a victim, especially in the case of dispute-related bullying, and authoritative-bullying. On the other hand, socially skilled low Machs can build strong social relationships and cooperative alliances (Jones and Paulhus 2009), which can help them to cope with aggression.

### Features of National and Organizational Cultures in Poland

The present study on the relationships between personality, organizational culture, and bullying was conducted on the group of Polish employees. Despite the fact that the aim of the study was not to compare the relationships across

cultures, a basic knowledge regarding social conditions of bullying behaviors in the workplace in Poland may be useful, especially due to the fact that the vast majority of the studies on bullying was conducted in the Western Europe and the USA.

The studies show that Polish society is still under the influence of Catholic ethics to a large extent. Despite the fact that Polish people declare moral rigorism, religiousness, attachment to the traditional system of values, the exorbitant social norms and the severity of law contribute to the dissonance between noble rules and norms of conduct realized on daily basis (Skarżyńska 2005). Polish people are more focused on material values and the certainty of employment compared to other European societies, which can be considered to be the risk factor of bullying since the employee can strive to maintain his or her job at any costs independently of the experienced violence (Skarżyńska 2005). Among the values most appreciated by employees are the following: sense of security, good relationships with the manager and co-workers, modesty, not showing ambition whereas achievements are valued relatively lower; so-called losers are frequently most liked (Hryniewicz 2004). This aspect is related to "Polish culture of complaining" in which dissatisfaction from the social world and one's situation in this world is still a dominant element of social interaction (Wojciszke and Baryła 2005). It may increase the tolerance for bullying behaviors since reports of victims of violence are treated as the ones which are within the organizational norm of complaining. The studies show that Polish managers prefer autocratic style of management; a considerable distance is observed between the employee and the manager, and employees frequently unite against the management (Hryniewicz 2004). Interestingly, such solidarity was not present with reference to the observed bullying behaviors.

Poland possesses legal regulations preventing bullying, which were incorporated into Labor Law. However, Polish employees show the tendency to disobey these procedures, and they also show a large tolerance for negligence of their co-workers. This, in turn, permits the employers to disrespect with impunity the commitments toward employees (Szcześniak 2006). A difficult situation on the labor market causing the threat of losing a job favors bullying in Polish organizations (Chomczyński 2008; Grzesiuk 2008). Such a situation results in the fact that many victims of unethical conduct face a difficult choice—either to have a job and to be oppressed or to face the risk of unemployment. The occurrence of bullying in Polish companies is still not fully recognized, and the indexes provided range from approximately 17 % (Derczyński 2002) to 61.5 % (Kmieciak-Baran and Rybicki 2004). In sum, Poland appears to be the country where workplace bullying constitutes a significant

social problem despite the implementation of many anti-bullying policies for instance by the Polish National Anti-mobbing Association.

## The Present Study

The objective of this study was to investigate relationships between bullying, Machiavellianism, and organizational culture. Previous studies show that some characteristics within an individual may predispose to bullying others and/or being bullied (Lutgen-Sandvik et al. 2009). However, bullying is a complex phenomenon, therefore, the analysis of antecedents of bullying behavior should include individual and personality factors, as well as work-related and organizational factors (Zapf and Einarsen 2003; Lutgen-Sandvik et al. 2009). In the present study, Machiavellianism was taken into account as a personality variable and perceptions of organizational culture as an organizational variable.

Considering the results of studies on bullying behavior in children (Andreou 2004), aggressive and unethical behavior of adult Machiavellians (Jones and Paulhus 2009), as well as the findings of the recent investigations (Baughman et al. 2012; Linton and Power 2013) it could be assumed that Machiavellianism is an individual factor that might be related to bullying behavior. In line with the previous findings, we expected that a person's Machiavellianism may increase the likelihood of bullying others at work (H1).

Some targets of bullying may be involved in bullying others. They are called provocative victims or bully-victims (Matthiesen and Einarsen 2007). Studies on children (Andreou 2004) and on adult subjects (Linton and Power 2013) have shown that bully-victims manifest the highest level of Machiavellianism. Andreou suggested that bully-victims are characterized by a more anxious style of Machiavellianism, as they have a negative view of themselves and also of other people (Andreou 2004, p. 306). We thus predicted that subgroups of people distinguished based on the declared frequencies of bullying others and being bullied would differ significantly with respect to Machiavellianism. The bully group and the bully-victim group would report a higher level of Machiavellianism compared to the groups of not involved in bullying and victims (H2).

Organizational culture may be directly related to bullying behavior. Different types of employees' behaviors can be regarded as appropriate and acceptable or inappropriate and unacceptable, depending on organizational culture (Salin 2003; Aquino and Lamertz 2004). The organization can promote and encourage bullying behavior. We expected organizational culture by Cameron and Quinn (2005) to be a significant predictor of being bullied. The respondents who

were targets of bullying would rate their organization as lower on clan and adhocracy culture, and higher on hierarchy (H3). These expectations were based on the results of the previous study (Omari 2007, p. 91).

As stated above, agreeable and altruistic non-Machiavellians may seem an easy target for bullies. On the other hand, the potential perpetrator may be discouraged by numerous strong social relationships established by non-Machiavellian employees. Studies on children showed that targets of bullying were similar to children not involved in bullying with respect to Machiavellianism. Thus, a direct relationship between Machiavellianism and being bullied was not expected. We anticipated that a person's Machiavellianism would moderate the association between organizational cultures (clan, adhocracy, market, and hierarchy) and being bullied, and this association would be stronger in non-Machiavellians rather than Machiavellians (H4).

## Method

### Participants

The study was conducted in Poland. It was approved by the local Research Ethics Committee of the University of Silesia. To obtain a sample of employees from different companies, a snow ball sampling technique was adopted. The research was anonymous and was done outside the work place. There were 52 male and 65 female participants, with a mean age of 38 ( $SD = 7.1$ , range = 20–55). The majority of the participants were working in the private sector (66 %). Thus, 34 % of them were public employees. About 22 % of the respondents worked in organizations with more than 150 employees, and 16 % in organizations with five or fewer employees. The sample had a relatively high education level (6 % primary school, 47 % high school, 47 % university). The organizational status of the participants was classified as subordinate (66 %) and supervisor (34 %).

### Measures

#### *Bullying*

Self-reported bullying was measured by the Unethical Behavior Questionnaire (UBQ) (Chudzicka and Makselon-Kowalska 2004). The questionnaire consists of 20 descriptions of negative interpersonal behaviors which have been frequently identified with bullying, gathered in six categories: social isolation (e.g., impeding or blocking off informal contacts at work), blackmail (e.g., threat of dismissal from work), humiliation (e.g., offending, ridiculing), demonstrating power (e.g., setting irrational

demands), unfair treatment (e.g., not keeping to contract conditions), and discrimination (e.g., racial, age, sex discrimination). The participants rated how often they experienced their co-workers performing each of these behaviors toward them and how often they performed these behaviors toward their co-workers. Response alternatives were “never,” “rarely,” “from time to time,” “often” and “very often.” The answers were summed up to obtain the scores of exposure to and perpetration of workplace bullying. The scores ranged from 20 to 100.

### *Machiavellianism*

Machiavellianism was measured by the 20-item Mach IV inventory, the most widely used instrument, developed by Christie and Geis (1970). Participants respond to belief statements (“The best way to handle people is to tell them what they want” or “Most people are basically good and kind”) on a 1 (strongly disagree) to 7 (strongly agree) scale. Raw scores range from 40 to 160, because a constant of 20 is added to all scores.

### *Organizational Culture*

Perceptions of organizational culture were measured using Cameron and Quinn’s (2005) Organizational Culture Assessment Instrument (OCAI). It is a tool based on the Competing Values Framework. The framework consists of two dimensions: internal versus external orientation and stability versus flexibility. The intersection of two dimensions generates a four-quadrant matrix with four sets of values corresponding to four types of organizational culture: hierarchy, market, clan, and adhocracy. An organization with a culture of hierarchy is a highly formalized place, where procedures dictate what people are to do. The term market concerns an organization which functions as a market—the essence is attention paid to efficiency, results and profits, and emphasizing the meaning of position on the market and control. In an organization with a dominating culture of clan common values as well as common goals are important; cohesion, a high level of participation and a high sense of community are observed. An adhocracy culture is characteristic of dynamic, enterprising, and creative organizations, it puts emphasis on non-stereotypical solutions, readiness for risky proposals and an ability to predict the development of the situation in the future.

The OCAI questionnaire diagnoses a given type of culture in the scope of 6 following categories: dominant characteristic of the organization, organizational leadership, employee management, organizational glue, strategic emphases, and criteria of success. The tool consists of six questions, each with four alternative answers corresponding with four types of organizational culture. The

participants assess the degree to which each of the four statements is true, dividing 100 points between four statements in each dimension (Cameron and Quinn 2005). The points are totaled for each culture.

## **Results**

SPSS for Windows version 17.0 was used in the calculations, with the maximum significance level set to 0.05. The descriptive statistics, reliability coefficients, and intercorrelations between the variables are presented in Table 1. No significant sex differences were found ( $p > .05$ ). Bullying others was positively correlated with Machiavellianism ( $r = .31, p < .01$ ), which constituted preliminary confirmation of Hypothesis 1. Being a target of bullying was positively correlated with the culture of hierarchy ( $r = .232, p < .05$ ), and negatively with the culture of clan ( $r = -.243, p < .01$ ) and adhocracy ( $r = -.212, p < .05$ ), confirming Hypothesis 3.

To provide an additional test for Hypothesis 1, a simple linear regression analysis was performed with bullying others as a dependent variable and Machiavellianism as a predictor. Machiavellianism was a significant predictor of bullying,  $b = .31, t(115) = 3.48, p = .001$ , and accounted for over 9 % of the variance,  $R^2 = .096, F(1, 115) = 12.11, MSE = 87.17, p = .001$ . H1 was thus confirmed.

To capture the differences in bullying behavior, a median split was performed on the subjects’ UBC scores. Four categories of people were distinguished: non-bullied (bullying others and being bullied below median;  $N = 34$ ), victims (bullying others below median and being bullied above median;  $N = 27$ ), bullies (bullying others above median and being bullied below median;  $N = 28$ ), and bully-victims (bullying others and being bullied above median;  $N = 28$ ). According to the expectations, differences in bullying behavior between thus composed groups were significant. The bully-victims ( $M = 51$ ) and victims ( $M = 50.9$ ) scored significantly higher on being bullied compared to the bullies ( $M = 33.1$ ) and the non-bullied persons ( $M = 28.9$ ),  $F(3, 113) = 67.27, MSE = 59.68, p < .001$ . The bullies ( $M = 36.9$ ) and bully-victims ( $M = 40.1$ ) scored significantly higher on bullying others compared to the victims ( $M = 23.8$ ) and non-bullied persons ( $M = 23.4$ ),  $F(3, 113) = 55.68, MSE = 39.57, p < .001$ .

A one-way ANOVA was computed to investigate the differences in Machiavellianism between the four groups (non-bullied, bully, victim and bully-victim). The statistics revealed significant group differences between the four subsamples,  $F(3, 113) = 7.352, MSE = 241.9, p < .001$ , Brown-Forsythe  $F(3, 103.66) = 7.423, p < .001$ . We used a Games-Howell approach to determine differences

**Table 1** Descriptive statistics, reliability coefficients, and intercorrelations between study variables

Variable	Mean	SD	1.	2.	3.	4.	5.	6.	7.
1. Machiavellianism	93.7	17.7	(.80)						
2. Bullying-target (being bullied)	40.3	12.7	-.031	(.90)					
3. Bullying-perpetrator (bullying others)	30.6	9.7	.310**	.121	(.91)				
4. Culture of clan	139.1	90.7	-.051	-.243**	.037	(.86)			
5. Culture of adhocracy	105.3	54.7	-.092	-.212*	-.072	.226*	(.72)		
6. Culture of market	149.3	80.6	.008	.138	-.049	-.706**	-.089	(.73)	
7. Culture of hierarchy	204.5	94.8	.085	.232*	.031	-.480**	-.726**	-.130	(.75)

\*  $p < 0.05$ ; \*\*  $p < 0.01$  (two-tailed). Cronbach's  $\alpha$  coefficients are in parentheses on the diagonal

**Table 2** Linear regressions estimating being bullied from the perceptions of organizational cultures (clan, adhocracy, and hierarchy)

Predictor	<i>B</i>	<i>SE B</i>	<i>b</i>	<i>F</i> (1,115)	<i>R</i> <sup>2</sup>
Constant	45.03	2.10	-.24	7.23**	.059
Culture of clan	-0.03	.013			
Constant	45.46	2.51	-.21	5.40*	.045
Culture of adhocracy	-0.05	.02			
Constant	33.94	2.73	.23	6.55*	.054
Culture of hierarchy	0.03	.01			

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

because our data violated Leven's equality of variances. The perpetrators ( $M = 96.9$ ) reported a higher level of Machiavellianism than the non-bullied group ( $M = 90.4$ ,  $p = .012$ ) and the victims ( $M = 88.3$ ,  $p = .002$ ). The bully-victim group ( $M = 100.1$ ) reported a higher level of Machiavellianism than the non-bullied group ( $M = 90.4$ ,  $p = .05$ ), and the victims ( $M = 88.3$ ,  $p = .008$ ). In sum, we may regard H2 as confirmed.

To provide a more accurate test for Hypothesis 3, a series of simple linear regression analyses was conducted with being bullied as a dependent variable and cultures of clan, adhocracy, and hierarchy as predictors. The results are presented in Table 2. The culture of market was excluded from the analysis because it was not correlated with being bullied. Relatively the best predictor of being bullied was the culture of clan (it accounted for about 6 % of the variance in being bullied), then hierarchy (over 5 %) and adhocracy (4.5 %). Thus, H3 was verified.

To test the hypotheses about the moderation effects of Machiavellianism, three separate moderation analyses were conducted, using three organizational cultures related to being bullied (hierarchy, adhocracy, and clan) as an independent variable, being bullied as a dependent variable and Machiavellianism as a moderating variable. The interaction was probed using the MODPROBE macro for SPSS designed by Hayes and Matthes (2009).

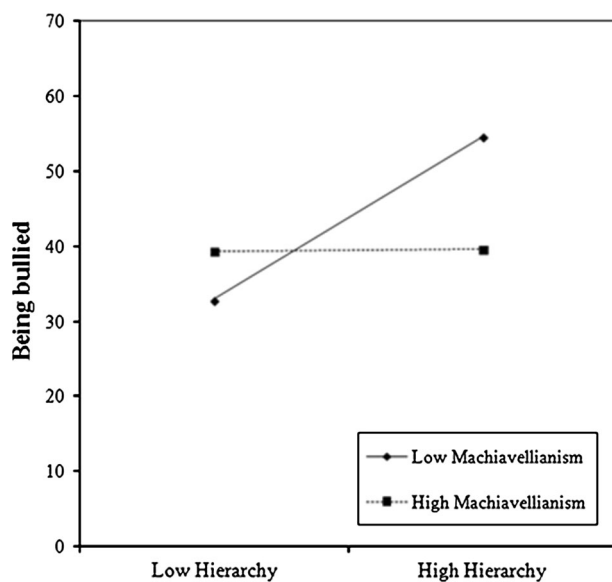
**Table 3** Linear regression estimating being bullied from the culture of hierarchy, Machiavellianism, and their interaction

Predictors	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	40.5124	1.1363	35.6525	<.001
Hierarchy ( <i>F</i> )	0.0268	0.0123	2.1803	.031
Machiavellianism ( <i>M</i> )	-0.0580	0.0642	-0.9030	.368
<i>F</i> × <i>M</i>	-0.0015	0.0006	-2.2791	.024

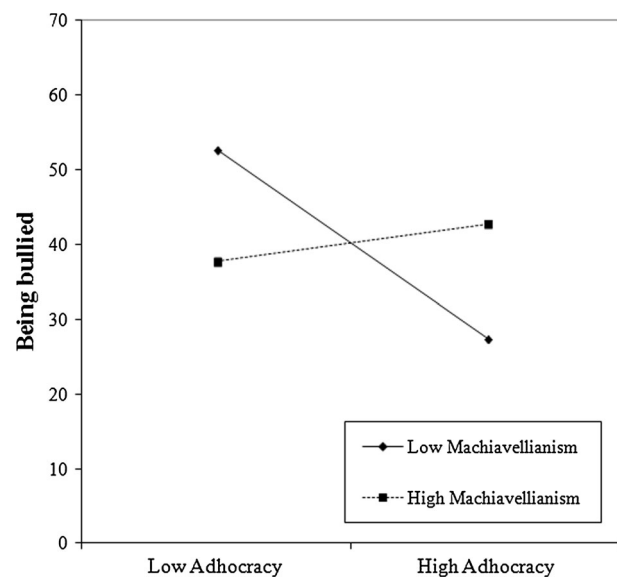
Note  $R^2 = .098$ ,  $F(3,113) = 4.0994$ ,  $p < .01$

The results of a moderated regression analysis using evaluations of being bullied as a dependent variable, culture of hierarchy as an independent and Machiavellianism as a moderating variable are presented in Table 3. When the interaction between hierarchy and Machiavellianism was not accounted for,  $F(2,117) = 3.426$ ,  $p < .05$ ,  $R^2 = .057$ , there was a significant main effect of hierarchy,  $B = .032$ ,  $t = 2.595$ ,  $p = .011$ ,  $b = .237$ , but there was not a significant main effect of Machiavellianism,  $B = -.037$ ,  $t = -.577$ ,  $p > .05$ , on being bullied. The interaction between hierarchy and Machiavellianism explained significantly more variance in the model above and beyond the combined effect of hierarchy and Machiavellianism,  $R^2$  change = .041,  $F = 5.1942$ ,  $p = .024$ . The respondents who perceived more characteristics of the culture of hierarchy reported being bullied more frequently when they were relatively low in Machiavellianism. No relationships were found between perceptions of hierarchy and being bullied among those who were relatively high in Machiavellianism. The interaction is shown in Fig. 1.

The results of a moderated regression analysis using evaluations of being bullied as a dependent variable, the culture of adhocracy as an independent variable and Machiavellianism as a moderating variable are shown in Table 4. When the interaction between adhocracy and Machiavellianism was not accounted for,  $F(2,117) = 2.845$ ,  $p = .06$ ,  $R^2 = .048$ , there was a significant main effect of adhocracy,  $B = -.05$ ,  $t = 2.361$ ,  $p = .02$ ,  $b = -.217$ , but there was not a significant main effect of Machiavellianism,



**Fig. 1** Interaction between culture of hierarchy and Machiavellianism in predicting being bullied



**Fig. 2** Interaction between culture of adhocracy and Machiavellianism in predicting being bullied

**Table 4** Linear regression estimating being bullied from the culture of adhocracy, Machiavellianism, and their interaction

Predictors	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	40.6270	1.1081	36.6644	<.001
Adhocracy ( <i>F</i> )	-0.0433	0.0203	-2.1348	.034
Machiavellianism ( <i>M</i> )	-0.0304	0.0620	-0.5480	.584
<i>F</i> × <i>M</i>	0.0036	0.0010	3.5362	<.001

Note  $R^2 = .142$ ,  $F(3,113) = 6.2566$ ,  $p < .001$

$B = -.37$ ,  $t = -.565$ ,  $p > .05$ , on being bullied. The interaction between adhocracy and Machiavellianism explained significantly more variance in the model in addition to the combined effect of adhocracy and Machiavellianism,  $R^2$  change = .094,  $F = 12.5044$ ,  $p < .001$ . The respondents who perceived more features of adhocracy reported being bullied less frequently when they were relatively low in Machiavellianism. There were no relationships between perceptions of adhocracy and being bullied among the participants who were relatively high in Machiavellianism. The interaction is shown in Fig. 2.

The results of a moderated regression analysis using evaluations of being bullied as a dependent variable, the culture of clan as an independent variable and Machiavellianism as a moderating variable did not show an interaction between the variables,  $F(3,113) = 2.4529$ ,  $p > .05$ . To sum up, the hypothesis that an interaction effect would be found for Machiavellianism and the cultures of hierarchy, adhocracy, and clan on being bullied (H4), was partially confirmed (for hierarchy and adhocracy).

## Discussion and Conclusions

The present study has shown that Machiavellianism may be recognized as a personality variable related to bullying behavior. It was discovered that employees who were high in Machiavellianism exhibited higher levels of bullying behavior. These findings support the research into school bullying (Andreou 2004), workplace bullying (Linton and Power 2013), and bullying in adults, beyond the workplace setting (Baughman et al. 2012). For Machiavellians, bullying may be a particular way of influencing others. Bullying behavior may also be the result of high Machs' negative view of other people. A higher level of Machiavellianism characterizes both perpetrators (who bully others) and bully-victims (bully others and are bullied). Previous studies on bullying in the workplace have shown a high level of fear and a low level of social competence of bully-victims (Matthiesen and Einarsen 2007). This relationship is compatible with the need for distinguishing two types of Machiavellians (fearful, with low self-esteem, as well as with an average, or even reduced level of fear), as suggested by some researchers (Draheim 2004).

Jones and Paulhus (2009) emphasize the strategic element of high Machs' behavior. A Machiavellian is capable of behaving in an unethical manner and manipulating others. However, when he or she enters into relatively permanent relationships with people (as in the working environment) he or she takes into consideration his or her long-term interest. High Machs are social manipulators so they are interested in being presented as socially attractive. According to Jones and Paulhus (2009, p. 104), "Machs



engage in aggression (including revenge) only to the degree that it is deemed profitable.” Therefore, Machiavellian employees will bully others when they come to a conclusion that they may benefit from bullying, that is when the results of cost-benefit analysis will be profitable for them.

The results have shown that being bullied is related to perceptions of the cultures of clan, adhocracy, and hierarchy, however, these connections are weak. The relationships between the clan and adhocracy cultures and being bullied are negative. However, in the case of the hierarchy culture, the relationship is positive. The above findings are consistent with the results of the previous study on the relationship of Machiavellianism and organizational cultures (Omari 2007). The cultures of clan and adhocracy are connected by placement in the dimension of “stability versus flexibility” on the side of flexibility and freedom of action, however, they differ by placement in the dimension of “internal versus external orientation” (clan—internal orientation, adhocracy—external orientation) (Cameron and Quinn 2005). Flexibility, as a common feature, may to a certain degree decide about the negative connection of both cultures with bullying behavior. This result may lead to a conclusion that lack of excessive rules limiting freedom of action may be advantageous to minimizing the phenomenon of bullying. Clan does not favor bullying because of appreciating interpersonal contacts, cooperation, and team work, a friendly atmosphere and a sense of community. Adhocracy may limit bullying used by managers toward employees, with regard to the fluent structure and lack of strict hierarchy, distinguishing it from the culture of hierarchy and market. However, the culture of hierarchy seems to be in favor of bullying behaviors. In large bureaucratic structures employees’ problems may not be noticed and authority may be abused. Predicting the phenomenon of bullying based on the dependences described above seems difficult. Organizations are usually a conglomeration of features attributed to certain types of cultures. Further studies should identify individual characteristics favoring bullying and characteristics limiting this disadvantageous phenomenon, operating within the configuration created by the dominating type of culture.

Machiavellianism was a moderator of the relations between perceptions of the hierarchy and adhocracy culture and being a victim of workplace bullying. If the culture is in favor of bullying behaviors (as it is in the case of hierarchy), non-aggressive and prosocial non-Machiavellians may experience violence more often than manipulative and cynical Machiavellians. On the other hand, when the culture consists of features discouraging from abusing others (adhocracy), employees low in Machiavellianism benefit more. Interestingly, Machiavellianism did not moderate the association between the culture of clan and being bullied.

The favorable working environment seems to have a protective function also toward high-Machiavellian employees.

The present study is the first to investigate the relationship between Machiavellianism (as a personality factor), organizational culture (as an organizational factor), and workplace bullying. The results contribute to the conception of Machiavellianism showing that adult Machiavellians, like children, show a tendency to abuse. Recently, researchers have shown an increased interest in the impact of Machiavellianism on organizational life (Zettler and Solga 2013; Den Hartog and Belschak 2012; Zettler et al. 2011; Kessler et al. 2010). Until now, organizational researchers have focused on employees with high Machiavellianism because Machiavellians are more likely to engage in deviant, unethical workplace behaviors and their actions may have potentially negative effects on the entire organization (Winter et al. 2004). The literature on Machiavellianism describes several organizational factors which are likely to contribute to the emergence of unethical Machiavellian behavior and offers some suggestions on how to reduce the likelihood of such behavior (Tang and Chen 2008). The results of the present study suggest that certain features of the work environment may be significant for non-Machiavellians, potentially affecting their productivity and work satisfaction. This might encourage organizational researchers to devote more attention to examining the organizational factors which influence the behavior of this group of employees.

The study has some practical implications. So far the need for special supervision and thorough training of newly employed Machiavellians has been emphasized, in order to prevent unproductive and unethical behaviors to the detriment of the organization (such as theft or fraud). Our results show that high Machs’ actions may be detrimental to co-workers and organization also due to their tendency to abuse others. Attention should be paid to shaping proper communicative behaviors and a proper attitude toward co-workers in this type of employees. Managers should also be aware that the culture of hierarchy may be conducive to workplace bullying.

Machiavellianism as an undesired feature of the employee and the leader is currently frequently studied and analyzed as the element of the Dark Triad of personality together with subclinical narcissism and psychopathy (Spain et al. 2013; O’Boyle et al. 2012; Harms et al. 2011). It is both significant and appropriate to consider the remaining aspects of the Triad in further studies, which will permit more advanced analysis of the relationships between dark personalities and workplace bullying.

#### Limitations

The present study has some limitations. This study was based on the self-report data obtained by means of a cross-

sectional design, therefore, drawing conclusions on the cause and effect directions of the observed relationships is not possible. Although self-reports are the most often used method of studying violence in the workplace (Aquino and Lamertz 2004), despite the assurance of anonymity, self-reports may not be acknowledged as objective measurements of victimization. Self-report of being a perpetrator of bullying is especially problematic and there is a possibility that participants will underreport involvement in such behavior. For the reasons given above research with different measurements, such as observer reports and archival data, is required. The sample is small and not representative, therefore, generalisability of the findings is limited, and it is not possible to draw any conclusions regarding the intensity of bullying behavior in Poland based on these data.

## References

- Agervold, M. (2009). The significance of organizational factors for the incidence of bullying. *Scandinavian Journal of Psychology*, 50(3), 267–276.
- Andreou, E. (2004). Bully/victim problems and their association with Machiavellianism and self-efficacy in Greek primary school children. *British Journal of Educational Psychology*, 74(2), 297–309.
- Aquino, K., & Lamertz, K. (2004). A relational model of workplace victimization: Social roles and patterns of victimizations in dyadic relationships. *Journal of Applied Psychology*, 89(6), 1023–1034.
- Bass, K., Barnett, T., & Brown, G. (1999). Individual difference variables, ethical judgments, and ethical behavioral intentions. *Business Ethics Quarterly*, 9(2), 183–206.
- Baughman, H. M., Dearing, S., Giammarco, E., & Vernon, P. (2012). Relationships between bullying behaviours and the Dark Triad: A study with adults. *Personality and Individual Differences*, 52(5), 571–575.
- Bowling, N. A., & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: A theoretical model and meta-analysis. *Journal of Applied Psychology*, 91(5), 998–1012.
- Cameron, K., & Quinn, R. (2005). *Diagnosing and changing organizational culture*. Upper Saddle River, NJ: Prentice Hall.
- Chomczyński, P. (2008). *Mobbing w pracy z perspektywy interakcyjnej. Proces stawianie się ofiarą*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
- Christie, R., & Geis, F. (1970). *Studies in Machiavellianism*. New York: Academic Press.
- Chudzicka, A., & Makselon-Kowalska, B. (2004). Zachowania nieetyczne w środowisku pracy. In K. Popiolek (Ed.), *Kryzysy, katastrofy, kataklizmy. Zjawiska współczesnej cywilizacji*, (pp. 232–244). Poznań: Stowarzyszenie Psychologia i Architektura.
- Corzine, J. B., & Hozier, G. C. (2005). Exploratory study of Machiavellianism and bases of social power in bankers. *Psychological Reports*, 97(2), 356–362.
- Coyne, I., Seigne, E., & Randall, P. (2000). Predicting workplace victim status from personality. *European Journal of Work and Organizational Psychology*, 9(3), 335–349.
- Den Hartog, D. N., & Belschak, F. D. (2012). Work engagement and Machiavellianism in the ethical leadership process. *Journal of Business Ethics*, 107(1), 35–47.
- Derczyński, W. (2002). *Szykany w miejscu pracy. Komunikat z badań*. Warszawa: Centrum Badania Opinii Społecznej.
- Draheim, S. E. (2004). *Makiaweliczna osobowość niepełnoletniego świadka*. Poznań: Wydawnictwo Naukowe UAM.
- Einarsen, S. (1999). The nature and causes of bullying at work. *International Journal of Manpower*, 20(1/2), 16–27.
- Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress*, 23(1), 24–44.
- Einarsen, H., Hoel, H., Zapf, D., & Cooper, C. L. (2003). *Bullying and emotional abuse in the workplace, International perspectives in research and practice*. London: Taylor and Francis.
- Glasø, L., Matthesen, S. B., Nielsen, M. B., & Einarsen, S. (2007). Do targets of workplace bullying portray a general victim personality profile? *Scandinavian Journal of Psychology*, 48(4), 313–319.
- Grzesiuk, L. (2008). Mobbing w miejscu pracy—czynniki ryzyka i konsekwencje. In J. Brzeziński, & M. Cierpiałkowska (ed.), *Zdrowie i choroba. Problemy teorii, diagnozy i praktyki*, (pp. 227–274). Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Harms, P. D., Spain, S. M., & Hannah, S. T. (2011). Leader development and the dark side of personality. *The Leadership Quarterly*, 22(3), 495–509.
- Harvey, M., Treadway, D., Thompson Heames, J., & Duke, A. (2008). Bullying in the 21st century global organization: An ethical Perspective. *Journal of Business Ethics*, 85(1), 27–40.
- Hauge, L. J., Skogstad, A., & Einarsen, S. (2009). Individual and situational predictors of workplace bullying: Why do perpetrators engage in the bullying of others? *Work and Stress*, 23(4), 349–358.
- Hayes, A. F., & Matthes, J. (2009). Computational procedures for probing interactions in OLS and logistic regression: SPSS and SAS implementations. *Behavior Research Methods*, 41(3), 924–936.
- Hoel, H., Einarsen, S., & Cooper, C. L. (2003). Organisational effects of bullying. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 145–161). London: Taylor & Francis.
- Hryniewicz, J. (2004). *Polityczny i kulturowy kontekst rozwoju gospodarczego*. Warszawa: Wydawnictwo Scholar.
- Jones, D. N., & Paulhus, D. L. (2009). Machiavellianism. In M. R. Leary & R. H. Hoyle (Eds.), *Individual differences in social behavior* (pp. 93–108). New York: Guilford.
- Kashy, D. A., & DePaulo, B. M. (1996). Who lies? *Journal of Personality and Social Psychology*, 70(5), 1037–1051.
- Keashly, L. (1998). Emotional abuse in the workplace: Conceptual and empirical issues. *Journal of Emotional Abuse*, 1(1), 85–117.
- Kessler, S. R., Bandelli, A. C., Spector, P. E., Borman, W. C., Nelson, C. E., & Penney, L. M. (2010). Re-examining Machiavelli: A three-dimensional model of Machiavellianism in the work-place. *Journal of Applied Social Psychology*, 40(8), 1868–1896.
- Kish-Gephart, J. J., Harrison, D. A., & Treviño, L. K. (2010). Bad apples, bad cases, and bad barrels: Meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology*, 95(1), 1–31.
- Kmiecik-Baran, K., & Rybicki, J. (2004). *Mobbing—zagrożenie współczesnego miejsca pracy*. Gdańsk: Pomorski Instytut Demokratyczny.
- Lee, R. T., & Brotheridge, C. M. (2006). When prey turns predatory. *European Journal of Work and Organizational Psychology*, 15(3), 352–377.
- Leymann, H. (1990). Mobbing and psychological terror at workplaces. *Violence and Victims*, 5(2), 119–126.
- Leymann, H. (1996). The content and development of bullying at work. *European Journal of Work and Organizational Psychology*, 5(2), 165–184.

- Lind, K., Glasø, L., Pallesen, S., & Einarsen, S. (2009). Personality profiles among targets and nontargets of workplace bullying. *European Psychologist, 14*(3), 231–237.
- Linton, D. K., & Power, J. L. (2013). The personality traits of workplace bullies are often shared by their victims: Is there a dark side to victims? *Personality and Individual Differences, 54*(6), 738–743.
- Locke, K. D., & Christensen, L. (2007). Re-construing the relational-independent self-construal and its relationship with self-consistency. *Journal of Research in Personality, 41*, 389–402.
- Lutgen-Sandvik, P., Namie, G., & Namie, R. (2009). Workplace bullying: Causes, consequences and corrections. In P. Lutgen-Sandvik & B. D. Sypher (Eds.), *Destructive organizational communication* (pp. 41–88). New York: Routledge Press.
- Matthiesen, S. B., & Einarsen, S. (2001). MMPI-2 configurations among victims of bullying at work. *European Journal of Work and Organizational Psychology, 10*(4), 467–484.
- Matthiesen, S. B., & Einarsen, S. (2007). Perpetrators and targets of bullying at work: Role of stress and individual differences. *Violence and Victims, 22*(6), 735–753.
- Matthiesen, S. B., & Einarsen, S. (2010). Bullying in the workplace: Definition, prevalence, antecedents and consequences. *International Journal of Organization and Behavior, 13*(2), 202–248.
- McHoskey, J. W. (1999). Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination theory analysis. *Motivation and Emotion, 23*(4), 267–283.
- O’Boyle, E. H. Jr., Forsyth, D. R., Banks, G. C., & McDaniel, M. A. (2012). A meta-analysis of the Dark Triad and work behavior: A social exchange perspective. *Journal of Applied Psychology, 97*(3), 557–579.
- Omari, M. (2007). *Towards dignity and respect at work: An exploration of bullying in the public sector*. Unpublished doctoral dissertation, Edith Cowan University, Western Australia.
- Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality, 36*(6), 556–563.
- Pilch, I. (2008). Machiavellianism, emotional intelligence and social competence. Are the Machiavellians interpersonally skilled? *Polish Psychological Bulletin, 39*(3), 158–164.
- Salin, D. (2001). Prevalence and forms of bullying among business professionals: A comparison of two different strategies for measuring bullying. *European Journal of Work and Organizational Psychology, 10*(4), 425–441.
- Salin, D. (2003). Ways of explaining workplace bullying: A review of enabling, motivating, and precipitating structures and processes in the work environment. *Human Relations, 56*(10), 1213–1232.
- Skarżyńska, K. (2005). Czy jesteśmy prorozwojowi? Wartości i przekonania ludzi a dobrobyt i demokratyzacja kraju. In M. Drogosz (Ed.), *Jak Polacy przegrywają, jak Polacy wygrywają* (pp. 69–93). Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Spain, S. M., Harms, P., & LeBreton, J. M. (2013). The dark side of personality at work. *Journal of Organizational Behavior*. doi:10.1002/job.1894.
- Stewart, A. E., & Stewart, E. A. (2006). The preference to excel and its relationship to selected personality variables. *Journal of Individual Psychology, 62*(3), 270–284.
- Szcześniak, A. (2006). Kultura organizacyjna polskich przedsiębiorstw. In M. Bąk, P. Kulawczuk, & A. Szcześniak (Eds.), *Kultura zatrudnienia w polskich przedsiębiorstwach* (pp. 67–75). Warszawa: Instytut Badań nad Demokracją i Przedsiębiorstwem Prywatnym.
- Tang, T. L. P., & Chen, Y. J. (2008). Intelligence vs. wisdom: The love of money, Machiavellianism, and unethical behavior across college major and gender. *Journal of Business Ethics, 82*(1), 1–26.
- Vartia, M. A.-L. (2001). Consequences of workplace bullying with respect to the well-being of its targets and the observers of bullying. *Scandinavian Journal of Work, Environment & Health, 27*(1), 63–69.
- Wilson, D. S., Near, D., & Miller, R. R. (1996). Machiavellianism: A synthesis of the evolutionary and psychological literatures. *Psychological Bulletin, 119*(2), 285–299.
- Winter, S. J., Stylianou, A. C., & Giacalone, R. A. (2004). Individual differences in the acceptability of unethical information technology practices: The case of Machiavellianism and ethical ideology. *Journal of Business Ethics, 54*(3), 279–301.
- Wojciszke, B., & Baryła, W. (2005). Kultura narzekania, czyli o psychicznych pułapkach ekspresji niezadowolenia. In M. Drogosz (Ed.), *Jak Polacy przegrywają, jak Polacy wygrywają* (pp. 35–53). Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Wright, L., & Smeje, M. (1998). *Corporate abuse*. New York: Simon and Schuster.
- Zapf, D., & Einarsen, S. (2003). Individual antecedents of bullying. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 165–184). London: Taylor & Francis.
- Zapf, D., Escartin, J., Einarsen, S., Hoel, H., & Vartia, M. (2010). Empirical findings on prevalence and risk groups of bullying in the workplace. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace. Developments in theory, research, and practice* (2nd ed., pp. 75–105). Boca Raton, FL: CRC Press.
- Zapf, D., Knorz, C., & Kulla, M. (1996). On the relationship between mobbing factors, and job content, social work environment, and health outcomes. *European Journal of Work and Organizational Psychology, 5*(2), 215–237.
- Zettler, I., Friedrich, N., & Hiblig, B. E. (2011). Dissecting work commitment: The role of Machiavellianism. *Career Development International, 16*(1), 20–35.
- Zettler, I., & Solga, M. (2013). Not enough of a ‘Dark’ trait? Linking Machiavellianism to job performance. *European Journal of Personality, 27*(6), 545–554.