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The role of personality in the form of temperament in relation to bullying at work

Abstract: Bullying at work is a long-standing area of research interest that requires investigation of the role of the individual exposed to systematic negative behaviour. Studies using cross-sectional samples and broad personality measures have found some distinguishing personal characteristics of employees who are bullied compared to others. Few, however have applied theoretical frameworks to explain why personality can play a part in why an individual ends up at the receiving end of bullying and harassment at work. This article applies an overall and specific theoretical model, the vulnerability thesis, to investigating the role of temperament in relation to workplace bullying. The results show that (1) some employees exposed to bullying at work also acted as perpetrators (provocative victims), that (2) exposure to bullying at work is connected with temperamental emotional vulnerability, and that (3) hostility and self-oriented aggression mediate the role of personality in the form of temperament in relation to workplace bullying. Strengths and weaknesses and potential practical implications for helpers of employees exposed to bullying at work are discussed.

Keywords: personality, temperament, workplace bullying, work environment thesis, vulnerability thesis

Introduction

The field of bullying at work has for long had an interest in investigating the role of the individual being exposed to systematic negative behaviour at work. Studies that have applied broad personality measures have found that some personal characteristics distinguish employees who are bullied from other employees. However, few have applied theoretical frameworks to explain why personality can play a part in why an individual ends up at the receiving end of bullying and harassment at work. This article will first present an overall and specific theoretical model, the vulnerability thesis, and will secondly investigate the role of personality in the form of temperament in relation to workplace bullying.

Workplace bullying

Bullying is when an employee is repeatedly and systematically exposed to negative behaviours at work that he or she are unable to defend themselves from (see

e.g. Branch, Shallcross, Barker, Ramsay, & Murray, 2018; Einarsen, Hoel, Zapf, & Cooper, 2003; Nielsen & Einarsen, 2018). Bullying can develop from a conflict over a specific argument or as a result of personal focused disagreement (see e.g., Björkqvist, 1992, after Einarsen, 2000; Leymann, 1996). Antecedents in a bullying process can include such as the situation, the context and the personality of both the person who is bullying someone at his or her workplace, often denominated as the perpetrator, and the employee who is exposed to the bullying. In addition to these antecedents, the organisations actions, the exhibited and perceived individual actions, as well as the reactions and outcomes for both the organisation and the individuals in question are assumed to have an influence on the development of the process. Workplace bullying may also be the result of an interaction between situational and individual factors where the individual and the organization mutually influences each other in way that some have described as a spiral of incivility (Andersson & Pearson, 1999; P. Ferris, 2004; Salin, 2003). Consultancy

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work with employees exposed to bullying at work has shown that most of the individuals “could identify that some type of challenge to the alleged perpetrator or their objection to their treatment by the alleged perpetrator likely played a role in their being targeted” (Ferris, 2009, p. 173). Therapeutic studies have shown that when consequences on health after bullying are severe and aggravated, an existent explanatory style, as e.g., that of experiencing the bullying as something that purely is caused by others than the individual themselves, may be difficult to alter (Bechtoldt & Schmitt, 2010).

Two of the main hypotheses in the explanation of why workplace bullying takes place are the work environment hypothesis (Leymann, 1996; see also Hauge, 2010; Hauge, Skogstad, & Einarsen, 2007; Hauge, Einarsen, Knardahl, Lau, Notelaers, & Skogstad, 2011) and the vulnerability hypothesis (Bowling & Beehr, 2006; Hauge, 2010; Matthiesen, 2006). While the first assumes that work environment factors such as type of leadership and climate can explain the development of bullying at work, the vulnerability hypothesis assumes that factors within the individual can explain the development of bullying at work. Motivating structures and processes (e.g., internal competition) and precipitating processes (e.g., restructuring and crisis) can influence the occurrence of each other and as well as have an impact on enabling structures and processes, such as for instance perceived imbalance in power. Together, these factors can make workplace bullying both more likely and possible within the organisation.

The work environment hypothesis

Leymann (1996) described how the work organization could be a factor in exposure to workplace bullying based on case studies. These studies showed that bullying existed in cases where working processes were poorly organized and management was uninterested or helpless. Research testing the impact of work environment (e.g., individual role stress) on individual bullying has shown that these relationships not are as clear cut as previously assumed (Hauge, Skogstad, & Einarsen, 2010). Hauge and colleagues found that workplace bullying is an antecedent of subsequent individual role stress, as were other work environment variables (e.g., individual role ambiguity, role conflict and role overload). These findings question the commonly held notion that individually experienced high role stress can elicit negative behaviours directed at the same individual (Hauge et al., 2010). Hauge and colleagues therefore argue that, although these relationships may exist, it is highly questionable whether these relationships are detectable even though we can apply large and representative samples, due to the fact of the small number of employees being exposed to bullying at work within these samples. Further, work environment factors, such as ambiguous and conflicting working conditions, can just as well influence an individual to project “their tension and frustration onto a suitable scapegoat in the workgroup, thereby becoming perpetrators of bullying” (Hauge et al., 2010, p. 15). Thus, according to Hauge and colleagues, if the aim is to test the impact of the work

environment hypothesis, studies based on individual level data may not be powerful enough to detect these relationships.

The vulnerability hypothesis

Leymann (1996) also described how personality often is an addressed issue in bullying cases and warned that empirical evidence was scarce and that even though future studies “should reveal personality as a source of conflicts of this kind”, it is vital to also take the effect of exposure to bullying into account, as personality changes also may be a symptom (p. 179). Studies on the vulnerability hypothesis have to some extent found that employees previously exposed to bullying at work could be characterised by low self-esteem, low aggressiveness and lack of social competencies (Matthiesen & Einarsen, 2007). Employees previously exposed to bullying have also been described as less social and talkative, as well as less likeable, understanding and diplomatic (Glasø, Matthiesen, Nielsen, & Einarsen, 2007). In addition, employees exposed to bullying at work have been described as less assertive, less independent and extroverted, less mentally stable as well as more neurotic than other employees (Coyne, Seigne, & Randall, 2000). Exposure to bullying has also been found to be associated with employees described as achievement-oriented, conscientious, rigid and intolerant for diversity (Einarsen, 2000; Matthiesen et al., 2003; Matthiesen & Einarsen, 2007), as well as low on agreeableness (Lind, Glasø, Pallesen, & Einarsen, 2009). In a meta-analysis study it has been shown that exposure to harassment was positively associated with neuroticism, and negatively associated with extraversion, agreeableness, and conscientiousness (Nielsen & Einarsen, 2016; see also Persson, Mikkelsen, & Høgh, 2018). Moreover, findings from prospective studies indicate on the one hand that negative emotionality (Bowling, Beehr, Bennett, & Watson, 2010) and neuroticism (Nielsen & Knardahl, 2015) predispose individuals to be subjected to workplace bullying, and on the other hand lowered agreeableness, conscientiousness, and openness are outcomes of exposure to bullying (Nielsen & Knardahl, 2015; Podsiadly & Gamian-Wilk, 2017).

Previous studies have to large extent applied personality measures such as the Minnesota Multiphasic Personality Inventory (MMPI-2, Butcher, Graham, Williams, & Yossef, 1990), the International Personality Item Pool (IPIP, Goldberg, 1999; Goldberg et al., 2006), the ICES Personality Inventory (Bertram, 1993) and the Neo-Five Factor Inventory (NEO-FFI, Costa & McCrae, 1992). As presented above have studies on the impact of the work environment shown that exposure to bullying can influence subsequent individual role stress, as well as other work environment variables (e.g., individual role ambiguity, role conflict and role overload). Overall and broad personality measures as presented here may not be powerful enough to detect general patterns in how an individual reacts to stressful situations. It may thus be useful to investigate individual temperament as a form of personality measure. This article will apply the model

described by Einarsen, Hoel, Zapf and Cooper (2003) as the overall theoretical model of workplace bullying. This model argues that bullying is a social phenomenon that includes a variety of factors at many explanatory levels such as the individual level, the dyadic level, on a social group level as well as an organisational level (see e.g., p. 23). Secondly, we will apply a model of how personality in the form of temperament can be associated with bullying at work. In the following we will turn to the role of personality in the form of temperament in relation to workplace bullying.

Temperament as a form of personality

In general personality is a term so “resistant to definition and so broad in usage that no coherent simple statement about it can be made” (Reber, 1995, p. 555). Thus, the most common way to go about is to define the term based on the theoretical framework that the term is applied within (e.g., type theories, trait theories, psychodynamic and psychoanalytic theories, behaviourism, humanism, social learning theories, situationism, and interactionism, see e.g., Reber, 1995). In this context, personality is defined as an individual’s consistent way to act across situations and across persons (Zawadzki, Strelau, Szczepaniak, & Śliwińska, 1998). The theoretical framework where personality is applied here is that of temperament, which may be classified within a type theoretic framework while it also acknowledges the situationism and interactionism in that, even though personality may be said to be a distinct entity, it does not exist outside a context, it is to be found in “the field of social interaction” (Allport & Allport, 1921, p. 7). Thus, in this paper, personality in the form of temperament is assumed to influence consistent behavioural patterns within a given context of social interaction.

Being bullied at work is however a very specific action. An individual’s temperament is assumed to have a biologically base and to be more stable during the lifespan than general measures of personality (see e.g., Strelau, 1996). According to Strelau and Zawadzki (1993), temperament can be defined as “basic, relatively stable personality traits which are present since early childhood, occur in man, and have their counterpart in animals” (p. 72). According to the Regulative Theory of Temperament (RTT, Strelau, 2006; Strelau & Zawadzki, 1993), temperament regulates behaviour by moderating both stimuli and temporal factors. An individuals’ behaviour is again divided into having an energetic (e.g., sensory sensitivity, endurance, emotional reactivity and activity) as well as a temporal characteristic (e.g., briskness and perseveration). The energetic and temporal main traits may again be divided into subcomponents. The energetic-oriented traits for example consist of (1) sensory sensitivity (e.g., differences in sensory threshold in different senses such as detecting subtle smells or tastes), (2) endurance, which is the ability to react adequately in situations demanding long-lasting or high stimuli activity and under intensive external stimulation. High levels of endurance are connected to persistent low levels of arousal. Emotional reactivity (3) indicates the

tendency to react intensively to emotion generating stimuli expressed in high emotional sensitivity and low emotional endurance. The subcomponent activity (4) further refers to the amount of time a person utilises when performing any kind of action. The second temperamental personal characteristic which is temporal consists of the two subcomponents (1) briskness (e.g., speed, mobility and tempo) and (2) perseveration (e.g., recurrence and persistence). Briskness indicates an individuals’ (a) level of speed, as in how fast one reacts to stimuli or other external demands, the individuals (b) mobility, which concerns how easily an individual can change his or her behaviour in response to changes in his or her environment, and his or her (c) tempo, which refers to the frequency of occurrence of homogeneous reaction within a given time unit). Perseverance indicates an individual’s level of (a) repeating the same behaviour after the stimulus evoking the given behaviour has terminated and his or her level of (b) persistence or maintenance of behaviour after the stimulus that evoked the behaviour has been terminated.

Studies have shown that the traits from RTT are comparable to other temperament and personality constructs (Strelau & Zawadzki, 1995). For instance Strelau and Zawadzki (1995) found that energetic characteristics such as activity are associated with action-oriented traits (e.g., extraversion), while temporal characteristics such as mobility is close to adaptability (e.g., speed to impulsivity). Strelau (2006) argues that temperament can impact individually linked stressors and that individually linked stressors can impact coping and temperament. This can again influence the state of stress and the consequences of being in a stressful situation.

In addition to that personality in the form of temperament can impact a stressful situation; an individual’s characteristic way of behaving in stressful situations can also potentially modify the relationship between exposure to bullying at work and consequences. In this way, temperamental traits can play an important role in relation to intensity of experienced symptoms of stress. Previous studies have for instance found that emotions (e.g., frustration, shame, fear, anger and distress) can mediate the relationship between bullying and outcomes on health (Glasø, Vie, Holmdal, & Einarsen, 2011). Both the two main temperamental traits can impact how an individual deals with pressure. However, according to Strelau (2006), the energetic-oriented trait emotional reactivity (e.g., the tendency to react intensively to emotion-generating stimuli) is most related to consequences of stress. Emotional reactivity has also been related to for instance the intensity of symptoms of post-traumatic stress (Kaczmarek & Zawadzki, 2012; Kaczmarek, Kaźmierczak, & Strelau, 2009; Zawadzki, Strelau, & Kaczmarek, 2008).

Emotions such as anger can also further aggravate an existing conflict, as may be the case in workplace bullying cases (Ferris, 2009). According to Glasø and Vie (2009), bullying can in this regard act as a toxic event which again can influence an escalation of other toxic emotions. While some studies have found that employees exposed

to bullying at work are characterised by low levels of aggression, others have found that some employees that have been bullied can turn to act as perpetrators (Hauge, Skogstad, & Einarsen, 2009) or provocative victims (Matthiesen & Einarsen, 2007). Findings on the social phenomena of ostracism (e.g., silent treatment) can explain this to some extent (Twenge, 2005). Experimental data have found that individuals that are socially excluded, as can be the case in workplace bullying cases, can retaliate against others (Twenge, Baumeister, Tice, & Stucke, 2001), and aggression is most likely when such social rejection is characterised by lack of control over an unpleasant situation (Williams & Zadro, 2005). Ma (2001) demonstrated such a victim-offender cycle. Individuals displaying bullying behaviours perform various forms of aggression, ranging from subtle and latent ones to physical and sexual violence, and as proactive aggression, while individuals that were exposed to bullying behaviours mainly performed hostility towards the environment or a kind of reactive aggression (Ireland & Archer, 2002; Palmer & Thakordas, 2005). The emotion hostility is a cognitive reaction of resentment and suspiciousness (Buss & Perry, 1992, cited in Palmer & Thakordas, 2005). In workplace bullying cases, such hostility and reactive forms of aggression can take the form of for instance talking behind the abuser's back and evolve into cycles of incivility (Andersson & Pearson, 1999; Lutgen-Sandvik, 2006).

Aim of study

Personality in the form of temperament, which is biologically based and stable, can both have an impact on how stress is perceived, as well as moderate the impact of stress and subsequently, which consequences that are developed. If so, which temperamental traits will then be most influential in relation to workplace bullying? Previous studies have been inconsistent in relation to finding a stable picture of the role of personality in relation to workplace bullying (Bowling, Beehr, Bennett, & Watson, 2010; Coyne, Seigne, & Randall, 2000; Einarsen, 2000; Glasø, Matthiesen, Nielsen, & Einarsen, 2007; Matthiesen et al., 2003; Matthiesen & Einarsen, 2007; Nielsen & Knardahl, 2015; Lind, Glasø, Pallesen and Einarsen, 2009; Podsiadly & Gamian-Wilk, 2017). According to Matthiesen and Einarsen (2007), employees that had been exposed to bullying at work are characterised by low self-esteem, depression as well as neurotic and negative emotions. Thus, energetic characteristics of behaviour, which concern both emotions and level of activity, can be associated with workplace bullying. We therefore expect that a high score on emotional reactivity will be associated with workplace bullying.

Hypothesis 1: Energetic temperament characteristics and especially emotional reactivity, is associated with workplace bullying.

Further, Lind and colleagues (2009) found that personality in the form of high conscientiousness and low agreeableness was related to workplace bullying. These two dimensions are however not temporal in nature and have

been shown to only be slightly correlated with temporal temperamental traits (see e.g., Strelau and Zawadzki, 1995).

Hypothesis 2: Temporal temperament characteristics are not related to workplace bullying.

Social rejection can both be a form of bullying as well as an antecedent of hostility, and reactive aggression (Twenge, 2005). Anti-social behaviour may for instance be a way to aim for control and recognition (Williams, 2007). In relation to workplace bullying, which can include social rejection, employees exposed to bullying can therefore also perform indirect forms of aggression such as hostility.

Hypothesis 3: Exposure to workplace bullying is associated with reactive aggression in the form of hostility.

As shown in the model by Strelau (1996), personality in the form of temperament can also modify the relationship between exposure to bullying at work and how an employee reacts to stressful events. In this way indirect forms of aggression, such as hostility, can mediate the relationship between temperament and workplace bullying.

Hypothesis 4: Indirect forms of aggression such as hostility can mediate the relationship between temperament and exposure to bullying at work.

Method

Sample and procedure

Data was collected by approaching 484 employees from various occupations doing professional studies. Questionnaires were distributed during lectures, with a response rate of 84 percent ($N = 406$). The participants were aged 19 to 53 ($M = 25.11$, $SD = 5.93$) and 88.6 percent of the sample were female. The majority (72%) of the sample worked as teachers in nursery or primary school, while a minority worked in merchandising (18%) or catering (10%). The study was an integrated part of an academic course and participants were not rewarded for their cooperation. All participants were students in pedagogy. Half of the respondents had an educational level at the bachelor level and were completing a master's degree, 50 percent had no higher education and were completing a bachelor's degree.

Instruments

Bullying

Workplace bullying was measured by two different methods. First, workplace bullying was measured by a Polish version of the Negative Acts Questionnaire – Revised, NAQ (Warszewska-Makuch, 2007), developed by Einarsen and colleagues (Einarsen, Hoel, & Notelaers, 2009). NAQ-R consists of 22 items and describes different behaviours which may be perceived as bullying or harassment if they occur on a regular basis. All items are formulated in behavioural terms, with no reference to the phrase “bullying and harassment”. The NAQ-R contains items referring to both direct (e.g., open attack) and indirect (social isolation, slander) behaviour. It also

contains items referring to personal as well as work-related forms of bullying. For each item the respondents were asked how often they had been exposed to the behaviour at their present workplace during the last six months. Response categories were (1) “never,” (2) “now and then,” (3) “monthly,” (4) “weekly,” and (5) “daily”. The NAQ-R showed good internal consistency in the present study (Cronbach’s $\alpha = .95$).

After the NAQ-R was listed in the questionnaire, the respondents were asked to indicate whether they had been exposed to bullying at work during the last six months according to a formal definition of bullying at work (see also Einarsen & Skogstad, 1996, p. 191): *Bullying (for example harassment, badgering, niggling, freezing out, or offensive teasing and jokes) is a problem in some workplaces and for some workers. We would like to know what the situation is like at your workplace. To label something bullying it has to occur repeatedly over a period of time, and the person confronted has to have difficulties defending himself/herself. It is not bullying if two parties of approximately equal “strength” are in conflict or the incident is an isolated event.* The response categories were (1) “No,” (2) “Yes, but occasionally,” (3) “Yes, now and then,” (4) “Yes, once a week,” and (5) “Yes, several times a week”. Respondents are characterized as “not bullied” if they answer “No,” and as “bullied” if they answered any of the other response categories.

Personality in the form of temperament

Temperament was measured with the Formal Characteristics of Behaviour – Temperament Inventory (FCB-TI; Strelau & Zawadzki, 1993, 1995). The FCB-TI yields information about six temperament domains and consists of 120 items, where respondents indicate whether or not they agree with a number of statements. The first of the six subscales is briskness. It includes 20 items ($\alpha = .76$) with statements such as ‘People often tell me to walk more quickly’ and ‘I can easily organise my work (change my plans) when I have to do somebody else’s duties’. A high briskness score indicates the tendency to make quick decisions and flexibility in relation to changing one’s behaviour. The perseverance dimension consists of 20 items ($\alpha = .74$) and includes statements such as ‘I can quickly forget about being insulted’ and ‘I often go back in my mind to past events’. A high score in perseveration indicates a tendency towards detailed analyses of life events as well as frequent rumination about past decisions or actions. The dimension of sensory sensitivity consists of 20 items ($\alpha = .71$) and includes statements such as ‘I can notice if it is getting dark’ and ‘I am only able to taste strong spices’. A high score on sensory sensitivity indicate the tendency to be delicate, alert and open to external events. The endurance dimension consists of 20 items ($\alpha = .82$) and includes statements such as ‘I can be involved in my work despite harsh pain’ and ‘I can continue to work regardless of exhaustion’. A high score on endurance indicates the tendency to handle various life difficulties. The dimension of activity consists of 20 items ($\alpha = .74$) and includes statements such as ‘I often engage

in situations that involve contact with others’ and ‘I like to lead a group’. A high score in activity implies the tendency to be sociable, impulsive and risk taking. The emotional reactivity dimension consists of 20 items ($\alpha = .83$) and includes statements such as ‘It is difficult to hurt me’ and ‘I lose my self-confidence when criticised’. A high score on emotional reactivity implies the tendency to be tense, emotionally unstable and vulnerable. The FCB-TI alpha values in this study were in accordance with the alpha values reported in previous studies (Strelau, 2006).

Aggression

Aggression was measured by the Aggression Syndrome Psychological Inventory (ASPI, Gaś, 1980). The ASPI measures aggression with 83 items and 10 subscales. Respondents are asked to indicate whether or not they agree with a range of statements with response categories ‘? (I do not know)’ (0), ‘No’ (1) and ‘Yes’ (2). The first subscale (control of aggressive behaviours) consists of 11 items ($\alpha = .46$) and includes statements such as ‘When I am irritated I can restrain myself’. The second subscale (tendency for retaliatory acts) consists of 10 items ($\alpha = .68$) and includes statements such as ‘When somebody hurts me I do the same’ (as in pay back). The third subscale (self-aggression) consists of the two subscales emotional, and physical self-aggression. Whereof the first (emotional self-aggression) consists of 9 items ($\alpha = .796$) that includes statements such as ‘I hate myself as I know I am a bad person’. The second subscale (physical self-aggression) consists of 6 items ($\alpha = .79$) that includes statements such as ‘When I am helplessly aggressive I sometimes hurt myself’ (e.g., fingers). The fourth subscale, latent aggression, consists of two sub scales (a) hostility towards environment with 8 items ($\alpha = .702$) and includes statements such as ‘I would like to take revenge on somebody I do not like’, and (b) unconscious aggressive tendencies with 9 items ($\alpha = .81$) and includes statements such as ‘While walking in a forest I like to kick mushrooms’. The fifth subscale, outwardly directed aggression, consists of four sub scales (a) displaced aggression with 8 items ($\alpha = .79$) and includes statements such as ‘When I am angry everything around me is in a danger’, (b) indirect aggression with 8 items ($\alpha = .72$) which includes statements such as ‘I am glad of others’ failures’, (c) verbal aggression with 8 items ($\alpha = .24$) and includes statements such as ‘Someone who interrupts my work may hear something unpleasant’, and (d) physical aggression with 6 items ($\alpha = .82$), including statements such as ‘If somebody irritates me in a bus I kick him or I stand on his feet’. The ASPI alpha values in this study were in accordance with the alpha values reported in previous studies (Gaś, 1980).

Results

This study investigates the role of personality in the form of temperament in relation to workplace bullying. The correlation analysis revealed that exposure to workplace bullying was positively related to emotional

self-aggression and hostility towards environment, and negatively related to physical self-aggression. Moreover, the more participants were exposed to bullying, the higher were their levels of emotional reactivity, endurance, and sensory sensitivity. Calculations of the means and standard

deviations for the main variables included are presented in Table 1, correlations between exposure to bullying and forms of aggression are found in Table 2, while correlations between exposure to bullying and temperament traits are shown in Table 3.

Table 1. Means and Standard Deviations and Minimum and Maximum Results in Exposure to Bullying and Temperament Features and Aggression Symptoms

Indicators	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Exposure to bullying	34.47	14.23	22	92
Briskness	34.46	3.67	21	40
Perseveration	33.02	3.42	21	38
Emotional reactivity	28.45	4.61	20	40
Endurance	31.72	4.63	20	40
Sensory sensitivity	24.91	3.19	20	35
Activity	30.13	3.93	21	40
General score	103.47	21.15	24	153
Control of aggressive behaviours	17.68	2.93	8	26
Tendency for retaliatory acts	11.97	3.54	0	19
Emotional self-aggression	11.61	3.59	0	18
Physical self-aggression	6.83	2.49	0	12
Hostility towards environment	10.04	2.95	0	16
Unconscious aggressive tendencies	10.17	3.42	8	18
Displaced aggression	9.33	3.19	0	16
Indirect aggression	8.78	2.75	0	16
Physical aggression	6.62	2.49	0	12
Verbal aggression	10.58	5.61	0	44

Table 2. Correlations Between Exposure to Bullying and Aggression

Measures	1	2	3	4	5	6	7	8	9
1. Exposure to bullying	–								
2. Control of aggressive behaviours	–.04	–							
3. Tendency for retaliatory acts	–.03	–.42**	–						
4. Emotional self-aggression	.33**	–.34**	.53**	–					
5. Physical self-aggression	–.13**	–.38**	.56**	.54**	–				
6. Hostility towards environment	.24**	–.37**	.59**	.75**	.56**	–			
7. Unconscious aggressive tendencies	–.05	–.57**	.67**	.53**	.75**	.59**	–		
8. Displaced aggression	–.07	–.29**	.59**	.53**	.80**	.59**	.70**	–	
9. Indirect aggression	–.04	–.48**	.63**	.51**	.73**	.57**	.80**	.67**	–
10. Verbal aggression	.05	–.09	.33**	.27**	.14**	.34**	.18**	.29**	.24**

* $p < .05$, ** $p < .01$.

Table 3. Correlations Between Exposure to Bullying and Temperament Features

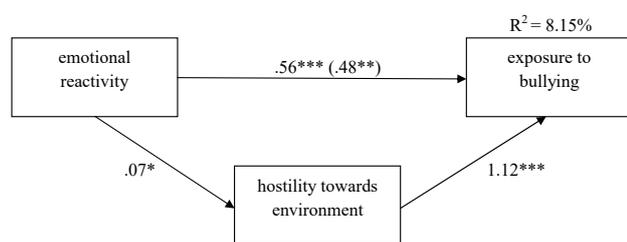
Measures	1	2	3	4	5	6
1. Exposure to bullying	–					
2. Briskness	–.09	–				
3. Perseveration	.03	–.02	–			
4. Emotional reactivity	.16**	.42**	–.37**	–		
5. Endurance	.10*	–.37**	.44**	–.57**	–	
6. Sensory sensitivity	.12**	–.35**	–.22**	–.01	.01	–
7. Activity	–.07	–.21**	–.03	–.27**	.28**	.13**

* $p < .05$, ** $p < .01$.

Next, the result show that indirect forms of aggression mediate the relationship between temperament traits and exposure to bullying. To analyse the direct and indirect effects in a hypothesized model of temperament and exposure to bullying at work, including particular forms of aggression, we used sampling with replacement and with a bias-corrected bootstrapping procedure (5,000 samples) using the PROCESS macro (Hayes, 2013). A series of mediation analyses were conducted with emotional reactivity as an independent variable, particular forms of aggression as mediators, and exposure to bullying as a dependent variable. Two of the forms of aggression played the role of mediators: hostility towards environment (fig. 1) and emotional self-aggression (fig. 2).

In the case of hostility, the overall model presented in Figure 1 explains $R^2 = 8.15\%$ of the variance in the dependent variable, $F(2, 398) = 25.76$, $p < .001$. The total effect of emotional reactivity on exposure to bullying was significant (effect = .56, $se = .16$, $t = 3.58$, $p = .0004$); therefore, emotional reactivity affect directly exposure to bullying or vice versa. The direct effect of emotional reactivity on exposure to bullying (controlling for the indirect effects through high hostility) was also significant (effect = .48, $se = .15$, $t = 3.10$, $p = .002$). The 95% bootstrapped confidence interval for the indirect effect of hostility did not include zero, 95% $CI [.02, .18]$, effect = .08, boot $se = .04$, indicating that hostility was a mediator.

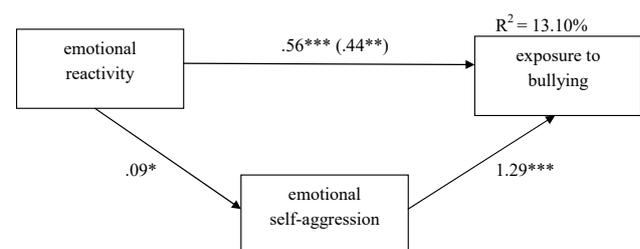
Figure 1. Hostility towards environment as a mediator of emotional reactivity – exposure to bullying (unstandardized coefficients), indirect effect = .08 [.02, .18]



* $p = .02$, ** $p = .002$, *** $p < .0001$.

In the case of emotional self-aggression, the overall model presented in Figure 2 explains $R^2 = 13.10\%$ of the variance in the dependent variable, $F(2, 399) = 30.08$, $p < .001$. The total effect of emotional reactivity on exposure to bullying was significant (effect = .56, $se = .16$, $t = 3.58$, $p = .0004$); therefore, emotional reactivity was directly linked to exposure to bullying. The direct effect of emotional reactivity on exposure to bullying (controlling for the indirect effects through emotional self-aggression) was significant (effect = .44, $se = .15$, $t = 2.94$, $p = .004$). The 95% bootstrapped confidence interval for the indirect effect of emotional self-aggression did not include zero, 95% $CI [.02, .25]$, effect = .12, boot $se = .06$, indicating that the emotional self-aggression was a mediator.

Figure 2. Emotional self-aggression as a mediator of emotional reactivity – exposure to bullying (unstandardized coefficients), indirect effect = .12 [.02, .25]



* $p = .02$, ** $p = .004$, *** $p < .001$.

Discussion

The purpose of the present study was to investigate the relationship between personality in the form of temperament and exposure to workplace bullying. To get more insight into the workplace bullying process we examined the role of emotions (aggression) in the personality – bullying relationship. We examined if emotionally reactive targets' indirect forms of aggression may lead to an escalation of workplace bullying.

The findings of the present study confirmed our predictions (H1): emotional reactivity was associated with

workplace bullying, and (H2): temporal temperament characteristics were not related to workplace bullying. As several authors indicate, the energetic-oriented trait emotional reactivity, the tendency to react intensively to emotion-generating stimuli, is highly related to consequences of stress (Kaczmarek & Zawadzki, 2012; Kaczmarek, Kaźmierczak, & Strelau, 2009; Strelau, 2006; Zawadzki, Strelau, & Kaczmarek, 2008). As exposure to workplace bullying is very much connected with experiencing stress symptoms (Tehrani, 2012) we expected that emotionally reactive individuals faced with exposure to workplace bullying would exhibit indirect forms of aggression. Previously it has been shown that emotionally reactive employees experience being bullied more seriously in that they exhibit higher level of anxiety and depression (Gamian-Wilk, 2010). As we predicted in H3, exposure to workplace bullying occurred to be associated with reactive aggression in the form of hostility and emotional self-aggression. This result is in line with findings on social ostracism which indicate that aggression is the most natural response to being socially excluded and rejected (DeWall, Twenge, Gitter, & Baumeister, 2009; Leary, Twenge, & Quinlivan, 2006; Twenge, 2005). Workplace bullying is a form of social rejection (e.g. Smart Richman & Leary, 2009). If even single acts of social ostracism result in aggressive response (Twenge, 2005) it is not surprising that workplace bullying, which consists of series of negative activities including exclusion and rejection, is associated with aggression. Moreover, our findings are in line with previous suggestions that emotions (e.g., frustration, shame, fear, anger and distress) can mediate the relationship between bullying and outcomes on health (Glasø, Vie, Holmdal, & Einarsen, 2011).

We have shown that employees exposed to bullying display indirect forms of aggression such as hostility and emotional self-aggression which may lead to further harassment. Thus, indicating a circular relationship, or a 'vicious circle'. We argue that exposure to bullying may be described through the spiral of incivility (Andersson & Pearson, 1999; Ferris, 2004; Salin, 2003) in that it may generate targets' psychosomatic negative consequences, and emotional responses including aggression. Bullying as a stressful event potentially produces severe psychosomatic outcomes (Tehrani, 2012), challenges psychological stability, a person's sense of self and their self-system, and weakens their sense of positive identity. Therefore, we argue that bullying targets' aggression first and foremost is a protective measure and response to outside circumstances. Then, targets' exhibiting aggression may annoy perpetrators and elicit further bullying, which is in line with the spiral of incivility (Andersson & Pearson, 1999). Our results are in line with Lutgen-Sandvik (2006) findings suggesting that retaliation is one of the responses to exposure to workplace bullying, as suggested by among others, Williams (2007). It was found that exposure to bullying for instance generated hostile gossiping, which again might constitute an escalation of the bullying process (Lutgen-Sandvik, 2006).

Most importantly, H4 has been confirmed. Hostility and emotional self-aggression mediated the relationship

between emotional reactivity and exposure to bullying. In line with Strelau (1996) we have shown that personality in the form of temperament modifies the relationship between a stressful event, here exposure to bullying at work, and how employees respond to stressful events. Indirect forms of aggression mediate the relationship between temperament and workplace bullying. In sum, our findings partly confirm the vulnerability hypothesis. We have found that emotionally reactive bullying targets faced with negative circumstances are more prone to exhibit hostility and emotional self-aggression. Therefore, faced with a negative workplace climate, more emotionally reactive workers tend to respond more intensively. These findings are in line with the literature on emotionally reactive individuals functioning. Emotional reactivity is the temperamental trait that has been found to relate most strongly to the intensity of post-traumatic stress symptoms across studies and samples (Strelau, Kaczmarek, & Zawadzki, 2006). In line with the work of Williams (2007), negative reactions may be a way to protect oneself from exposure to social exclusion, for instance the "silent treatment".

In sum, our findings are in line with results from previous prospective studies. Both negative emotionality (Bowling, et al., 2010) and neuroticism (Nielsen & Knardahl, 2015) have been found to play a predictive role in increasing risk of exposure to bullying. Emotional reactivity is positively associated with neuroticism and negative emotionality (Strelau & Zawadzki, 1995). However, apart from neuroticism, other personality traits appear to have little impact on victimisation from bullying (Nielsen & Knardahl, 2015). Therefore, although personality is a central factor in some theoretical models of bullying (Bowling & Beehr, 2006) and the vulnerability hypothesis (Matthiesen, 2006) this may be connected with exaggerated focus on individual characteristics instead of on situational cues.

Organisational factors are important antecedents of exposure to bullying (Hauge et al., 2010). It was argued that work environment factors, such as ambiguous and conflicting working conditions may influence targeted individuals by generating their tension and frustration (Hauge et al., 2010). Bullying targets' negative emotionality, frustration and hostility may contribute to negative workplace climate, and thereby to the escalation of bullying at work (Ferris, 2009). Because of negative emotions bullying targets can turn to act as perpetrators (Hauge, Skogstad, & Einarsen, 2009) or provocative victims (Matthiesen & Einarsen, 2007). Negative emotions may thus be due to a victim-offender cycle (Ma, 2001) or the cycles of incivility (Andersson & Pearson, 1999; Lutgen-Sandvik, 2006).

This is one of the few studies aiming to apply a model of how personality in the form of temperament is related to bullying at work. We found that emotionally reactive bullying targets' negative emotions, emotional self-aggression and hostility may contribute to the escalation of bullying and coercive actions at work. Generally, our results are in line with Ferris (2009) suggestions that emotions

such as anger can aggravate an existing conflict, as may be the case in workplace bullying cases. On the other hand, bullying can act as a toxic event which again can influence an escalation of other toxic emotions (Glasø & Vie, 2009). The present study was based on one measurement point. Future studies should focus on conducting prospective studies to further verify the role of bullying targets negative emotions and aggression in the cycle of incivility.

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Ethical statements

We declare to have no conflict of interest in the conduct and reporting research.

The study was approved by local SWPS University of Social Sciences and Humanities committee in accordance with the Helsinki Declaration. The data were collected and analyzed anonymously.

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