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Review

Exposure to workplace harassment and the Five Factor Model of personality: A meta-analysis



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ABSTRACT

Although a growing body of studies has investigated the role of personality traits as correlates of exposure to workplace harassment, the true magnitude of the relationships between harassment and targets' personality characteristics remains unknown. To address this issue, relationships between traits in the Five-Factor Model of personality and exposure to harassment were examined by means of meta-analysis. Including studies published up until January 2015, 101 cross-sectional effect sizes from 36 independent samples, totaling 13,896 respondents, showed that exposure to harassment was positively associated with neuroticism ($r = 0.25$; $p < 0.01$; $K = 32$), and negatively associated with extraversion ($r = -0.10$; $p < 0.05$; $K = 17$), agreeableness ($r = -0.17^{**}$; $p < 0.01$; $K = 19$), and conscientiousness ($r = -0.10^{*}$; $p < 0.05$; $K = 22$). Harassment was not related to openness ($r = 0.04$; $p > 0.05$; $K = 11$). Moderator analyses showed that the associations between harassment and neuroticism, agreeableness and conscientiousness, respectively, were conditioned by measurement method for harassment, type of harassment investigated, and geographical origin of study. Summarized, the findings provide evidence for personality traits as correlates of exposure to workplace harassment.

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1. Introduction

The relationships between personality and exposure to workplace harassment have been examined in a range of studies (e.g., Bamberger & Bacharach, 2006; Bowling, Beehr, Bennett, & Watson, 2010; Milam, Spitzmueller, & Penney, 2009). While some studies show clear differences in personality dispositions between victims and non-victims of harassment (Coyne, Seigne, & Randall, 2000; Rammsayer, Stahl, & Schmiga, 2006), others indicate that personality traits do not easily differentiate harassed from non-harassed employees (Glasø, Nielsen, & Einarsen, 2009; Lind, Glasø, Pallesen, & Einarsen, 2009). Based on the contradicting findings of individual studies it is therefore difficult to conclude whether or not personality dispositions actually are associated with exposure to workplace harassment. Hence, an unresolved issue in psychology is therefore whether, and eventually how, personality characteristics of targets are related to workplace harassment.

Valid knowledge about correlates of workplace harassment is important for the understanding of the phenomenon (Bowling & Beehr, 2006), and is needed for theoretical, applied, and methodological reasons. That is, in order to build comprehensive theoretical models of

the nature, causes, and consequences of harassment, the individual characteristics of targets must be understood (Milam et al., 2009; Zapf & Einarsen, 2011). For applied purposes, managers, consultants and HR personnel need to understand the true role of personality traits in order to avoid being a captive of the fundamental attribution error which may lead them to overestimate the role these dispositions play in the harassment process when handling actual cases (Ross, 1977). Likewise, psychologists, counselors and even family physicians, need information about the role of personality characteristics when involved in the treatment and rehabilitation of targets. Methodologically, we need to know to which extent we must control for personality dispositions when investigating other plausible causes of harassment, such as leadership and job characteristics (see also Spector & Brannick, 2011; Spector, Zapf, Chen, & Frese, 2000).

Meta-analysis has been viewed as an efficient approach to synthesize research findings, especially since stronger conclusions can be reached compared to individual studies or traditional impressionistic literary reviews (Hunter & Schmidt, 2004; Lipsey & Wilson, 2001). Although a meta-analysis does not resolve the limitations inherent in the existing individual studies, this approach has the advantage of shifting the focus to the whole body of research on a given topic by bringing effects, strengths, and limitations of the field into sharper focus. Using meta-analysis, we will add to the current understanding of the relationships between personality dispositions and harassment,

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as well as factors that influence these relationships, by 1) determining cross-sectional associations between exposure to psychological harassment at work and the traits in the Five Factor Model (FFM) of personality, and 2) determine the impact of geographical origin of studies, sampling method, measurement method of harassment, and form of harassment as possible moderators of the associations between FFM-traits and exposure to harassment.

2. Definitions and theoretical background

It is common to distinguish between physical and psychological forms of harassment. Whereas the former describes aggressive acts of a direct physical nature, e.g., sexual harassment and even physical assault/violence, the latter refers to mistreatment of workers of a non-physical nature which in the scientific literature has been conceptualized with a range of labels such as abusive supervision (Tepper, 2007), incivility (Cortina, Magley, Williams, & Langhout, 2001), bullying/mobbing (Einarsen, Hoel, Zapf, & Cooper, 2011), victimization (Aquino & Thau, 2009), interpersonal deviance (Berry, Ones, & Sackett, 2007), emotional abuse (Keashly, 1998), ostracism (Williams, 2007), and social undermining (Duffy, Ganster, & Pagon, 2002). It has been argued that this proliferation of constructs has led to a confusing state of affairs in which many scholars are studying virtually identical forms of mistreatment of subordinates and fellow workers, but with different terminology (Hershcovis, 2011; Raver & Barling, 2007). To avoid such proliferation, we will, in line with the seminal work “The harassed worker” by Carroll Brodsky (1976), use *workplace harassment* as a higher order construct to describe different forms of non-physical yet systematic mistreatment of and among employees. As the aim of this study was to examine psychological and emotional harassment, exposure to physical aggression will not be assessed.

According to Brodsky (1976, p. 2), workplace harassment is defined as repeated and persistent attempts by one person to torment, wear down, frustrate or get a reaction from another. It is treatment that persistently provokes, pressures, frightens, intimidates, or otherwise discomforts the target. Hence, workplace harassment is not about isolated and one-off instances of aggression, but do rather refer to ongoing and repeated exposure to mistreatment. These main elements of Brodsky's definition have been integrated in later conceptualizations of harassment. For instance, Tepper (2007) defines abusive supervision as the extent to which subordinates perceive supervisors to engage in the sustained display of hostile verbal and nonverbal behaviors while at work, yet excluding physical abuse. Similarly, Lutgen-Sandvik, Tracy and Alberts (2007, p. 837) define workplace bullying as “a type of interpersonal aggression at work that goes beyond simple incivility and is marked by the characteristic features of frequency, intensity, duration and power imbalance”. Although there is no definitive list of harassing behavior, harassment mainly involves exposure to verbal hostility, being made the laughing stock of the department, having one's work situation obstructed, or being socially excluded from the peer group. Empirically, such behavior has been differentiated into seven categories: work-related harassment, social isolation, attacking the private sphere, verbal aggression, the spreading of rumors, intimidation, and attacking personal attitudes and values (Zapf, Knorz, & Kulla, 1996). In some cases physical forms of intimidation or even threats occur in conjunction with such acts.

Due to inconsistencies and differences in definitions, operationalizations, and measurement methods (Nielsen, Matthiesen, & Einarsen, 2010), as well as cultural and geographical differences (Van de Vliert, Einarsen, & Nielsen, 2013), estimates of the prevalence of harassment varies from one study to another. For example, in a large scale study among US employees, 41.1% of the respondents, representing nearly 47 million workers, reported exposure to some sort of psychological harassment over the past 12 months (Schat, Frone, & Kelloway, 2006). Altogether 31.4% of these workers experienced harassment on a weekly basis. In a study employing latent class

cluster analysis in a representative sample of Norwegian employees assessing the prevalence of destructive leadership, it was established that 6% of the respondents had observed highly abusive supervision over the last six months (Aasland, Skogstad, Notelaers, Nielsen, & Einarsen, 2010). Finally, in a meta-analysis of 102 prevalence estimates of workplace bullying, a global rate of 14.6% was established across 86 independent samples comprising 130,973 respondents (Nielsen et al., 2010). These numbers clearly show that workplace harassment is a large-scale problem faced by many employees even on a daily basis.

Harassment is not only a prevalent problem, but also one with strong detrimental outcomes for those targeted (Høgh, Mikkelsen, & Hansen, 2011), as well as for the organization as such (Hoel, Sheehan, Cooper, & Einarsen, 2011). With regard to individuals, both cross-sectional and longitudinal evidence suggests that exposure to psychological harassment in the workplace has detrimental effects on the targets' health and well-being (see Bowling & Beehr, 2006; Hershcovis, 2011; Nielsen & Einarsen, 2012; Nielsen, Indregard, & Øverland, 2016; Nielsen, Tangen, Idsoe, Matthiesen, & Magerøy, 2015 for meta-analytic overviews; Verkuil, Atasayi, & Molendijk, 2015). In longitudinal research, psychological and somatic health problems, such as anxiety (Finne, Knardahl, & Lau, 2011), depression (Kivimäki, Elovainio, & Vathera, 2000; Kivimäki et al., 2003), suicidal ideation (Nielsen, Nielsen, Notelaers, & Einarsen, 2015) and muscle-skeletal problems (Tynes, Johannessen, & Sterud, 2013), are among the observed individual health outcomes. However, a reoccurring finding in several of the prospective studies is that symptoms of distress also predict subsequent exposure to workplace harassment (Nielsen & Einarsen, 2012; Nielsen, Magerøy, Gjerstad, & Einarsen, 2014). Based on these findings it has therefore been questioned whether specific individual characteristics and dispositions of the target constitute a vulnerability factor with regard to exposure to harassment or whether exposure to harassment leads to changes in individual dispositions among targets of harassment (Glasø, Matthiesen, Nielsen, & Einarsen, 2007; Kivimäki et al., 2003; Nielsen, Hetland, Matthiesen, & Einarsen, 2012).

According to Nielsen and Knardahl (2015) there are at least four different causal mechanisms that can explain how individual dispositions may be related to workplace harassment. Serving as a null-hypothesis, the *no-relationship mechanism* suggests that exposure to harassment is not associated with individual dispositions at all. Building on the concept of “provocative victims” (Olweus, 1993), the second mechanism, labeled *the target-behavior mechanism*, suggests that employees with specific dispositions elicit aggressive behaviors in others through violating expectations, underperforming, and even breach social norms of polite and friendly interactions (Einarsen, 1999; Felson, 1992). As a third explanation, *the negative perceptions mechanism* suggests that certain individual dispositions are associated with a lowered threshold for interpreting behaviors as negative and as harassing and that employees with such dispositions therefore have a higher risk than others for labeling and reporting negative events at the workplace as harassment (Nielsen, Notelaers, & Einarsen, 2011). Finally, *the reverse causality mechanism* view individual dispositions as outcomes rather than antecedents of workplace harassment something which implies that exposure to workplace harassment is a traumatic stressor which causes changes in individual dispositions among those exposed (Leymann, 1996).

3. The Five Factor Model of personality and workplace harassment

While there are several different theories about the nature and content of individual dispositions, trait theories, with the FFM as the prominent model, seems to be most influential in contemporary psychology (McCrae & Costa, 1987, 1991). Being founded through theory and a large body of empirical evidence, the FFM suggest that personality traits, i.e., an individual's tendency to think, feel, and act in consistent ways, can be structured into the five broad dimensions extraversion, conscientiousness, agreeableness, neuroticism (emotional stability), and openness to experience (McCrae & John, 1992). Building on the explanatory mechanisms suggested by Nielsen and Knardahl (2015),

we will in the upcoming sections present the factors included in the FFM, suggest how these factors can be related to exposure to workplace harassment, and present our study hypotheses. Due to the lack of longitudinal evidence on the associations between workplace harassment and personality it should be noted that the causal relationships described in this introduction are solely theoretical mechanisms and that this is not a meta-analysis of causal associations.

Extraversion pertains to one's preferred quantity and intensity of interpersonal interaction (Pervin, 1993), that is, an individual's preference towards sociability, talkativeness, and excitement seeking (Costa & McCrae, 1992). Extravert persons are predisposed to experience positive emotions. Evidence also indicates that extraverts engage more in interpersonal relationships and spend more time in social situations than do introverts and, because of their social facility, are likely to find interpersonal interactions more rewarding (Watson & Clark, 1997). In meta-analyses, extraversion has been found to be related to subjective well-being (DeNeve & Cooper, 1998; Judge, Heller, & Mount, 2002), higher job satisfaction (Judge et al., 2002), but unrelated to organizational and interpersonal deviance (Berry et al., 2007). Bowling and Beehr (2006) found that positive emotions, which can be considered as a facet of extraversion (Watson & Clark, 1997), was not related to workplace harassment. Similarly, in two different prospective studies on workplace harassment, indicators of extraversion were unrelated to subsequent harassment (Bowling et al., 2010; Nielsen & Knardahl, 2015).

Following the Target behavior mechanism, a relationship between extraversion and harassment may be multifold. On the one hand it can be argued that highly extravert persons have a need for attention and a tendency to control and dominate groups and discuss something which may annoy colleagues and thereby trigger aggressive behavior (Nielsen & Knardahl, 2015). On the other hand, extreme introverts may risk annoying others due to a tendency to being overly private and reserved and something colleagues may interpret as being unfriendly, cold, and uninvolved. A potential relationship between harassment and extraversion can also exist via a perception mechanism. As the experience of positive emotions is a central component of extraversion, it may be that an extravert target does not easily perceive that misbehavior or aggression has occurred because he or she will have either not perceived the infraction or interpreted it in a somewhat more pleasant light (Milam et al., 2009). In contrast, as introverts are more internally aware and reflective they may be more attentive to aggressive behaviors. With regard to a Reversed causality mechanism, exposure to harassment could make targets withdraw from social contexts at the workplace, and thereby perceiving themselves as more introverted. Although both a positive and a negative relationship are likely, the mechanism seems to provide most support for a negative relationship between extraversion and exposure to harassment. We therefore propose that:

H1. Extraversion is negatively related to exposure to workplace harassment.

Agreeableness refers to the extent that an individual is likeable, understanding, and diplomatic (Pervin, 1993). McCrae and Costa (1991) found that individuals who are high in agreeableness experience more positive affect and generally have higher levels of well-being. This conclusion is supported by meta-analytical findings showing that high levels of agreeableness is related to higher job satisfaction (Judge et al., 2002), while being negatively related to interpersonal and organizational deviance (Berry et al., 2007) thereby suggesting that persons high on this trait experience an overall positive work situation, with persons with a low score may be more easily involved in harassment.

With regard to the Target behavior mechanism, individuals who are low in agreeableness are said to be mistrustful and skeptical (McCrae & Costa, 1987). They may therefore be more likely to behave in ways that may provoke others, and thereby increasing the risk of experiencing harassment from others. In the light of a Negative perceptions mechanism, this mistrust in others may also make them see instances of workplace

harassment even when hardly present (Milam et al., 2009). A negative relationship between harassment and agreeableness can also be expected through the Reversed causality mechanism. That is, as systematic and on-going harassment is an extreme social stressor, it is quite plausible that a target becomes even more skeptical and mistrustful towards others after exposure to harassment. Taken together the theoretical mechanisms seem to point to negative relationship between agreeableness and harassment:

H2. Agreeableness is negatively related to exposure to workplace harassment.

Conscientiousness is the individual's degree of organization, persistence, and motivation in goal-directed behavior (McCrae & Costa, 1991) and relates to the "control of impulses". Individuals scoring high on this dimension tend to be traditional, organized, and dependable (Pervin, 1993). Meta-analytic findings show a clear positive relationship between conscientiousness and job satisfaction (Judge et al., 2002), while strong negative associations have been established with regard to interpersonal and organizational deviance (Berry et al., 2007). With regard to exposure to harassment, Brodsky (1976) claimed, on the basis of clinical work with actual cases of bullying, that many targets tend to be overly dependable and organized, which both are characteristics of high conscientiousness. As an explanation for this positive association, emerging research have shown that conscientiousness, as reflected through high levels job performance, is a potential precursor of aggression from colleagues and that envy explains this relationship (Jensen, Patel, & Raver, 2014; Kim & Glomb, 2014). However, in light of both the Target behavior and Negative perception mechanisms low levels of conscientiousness may also be related to exposure to harassment. For instance, employees who do not deliver their work on time or who do not perform in line with expected standards will probably be subjected to closer monitoring by leaders. If these employees perceive this monitoring as illegitimate, unfair and systematic, they may perceive and interpret it as some form of harassment.

Following the Reversed causality mechanism, the most consistent theoretical explanation for a relationship between conscientiousness and harassment can be found in theories about experience of inequity and cognitive dissonance. For instance, according to the well-established Effort-Reward Imbalance model (Siegrist, 1992), work-related benefits depend upon a reciprocal relationship between efforts and rewards at work. Specifically, the model claims that work characterized by both high efforts and low rewards represents a reciprocity deficit between high 'costs' and low 'gains', which could elicit negative emotions in exposed employees. Consequently, employees who are harassed may become less conscientious at work because they perceive the harassment as unfair and thereby respond by withdrawing work tasks and obligations. Such a reversed relationship between conscientiousness and harassment was supported in a full-panel prospective study which showed that victimization from workplace bullying was significantly related to a decrease in conscientiousness two years later (Nielsen & Knardahl, 2015). The findings did also show that conscientiousness at baseline was positively related to bullying at follow-up, but only after adjusting for the impact of role-conflict and role ambiguity. Taken together, conscientiousness can be related to harassment in numerous and even contradictory ways. Still, as both theory and empirical evidence seems to support a negative relationship between the variables we will test the following hypothesis:

H3. Conscientiousness is negatively related to exposure to workplace harassment.

Neuroticism refers to adjustment versus emotional instability and points to whether an individual tends to be relaxed and stable, or anxious and easily upset (Pervin, 1993). Persons with high scores on this trait are characterized by feelings of nervousness, worrying, and insecurity. Meta-analyses show that neuroticism is negatively related to job

satisfaction (Judge et al., 2002) and positively related to interpersonal and organizational deviance (Berry et al., 2007). With regard to harassment, neuroticism and the related construct negative affectivity, has been found to be positively related to harassment in both meta-analyses (Bowling & Beehr, 2006) and prospective studies (Bowling et al., 2010; Nielsen & Knardahl, 2015).

Because of their essentially pessimistic nature, neurotic individuals experience more negative life events than do other individuals (Magnus, Diener, Fujita, & Pavot, 1993). Hence, following the Target behavior and the Negative perceptions mechanisms, it is reasonable that they also have a greater risk of being exposed to, as well as perceiving, workplace harassment. As for the Target behavior mechanism, the public perspective of neuroticism may contribute to workplace harassment as behaviors associated with nervousness and insecurity (e.g., fidgeting, nervous speech, excessive talking, ruminating aloud) may be viewed by others as annoying or bothersome, and may make the outwardly neurotic individual a provocative but also easy target of harassment (Milam et al., 2009, p. 61).

Building on the Negative perceptions mechanism, neurotic persons perceive themselves and a variety of aspects of the world around them in generally negative terms (McCrae & Costa, 1991) and may therefore have a lower threshold than more emotionally stable persons for experiencing certain behaviors as harassment. Yet, due to the traumatic nature of exposure to workplace harassment, it is also possible that people become more nervous and insecure as a consequence of prolonged exposure to harassment, thus suggesting a Reversed causality relationship, where harassment causes changes in the personality of the targets. To determine whether the expected association between neuroticism and exposure to harassment holds true, the following hypothesis will be tested:

H4. Neuroticism is positively related to exposure to workplace harassment.

Openness refers to an individual's interest in culture and to the preference for new activities, experiences and emotions, and is related to scientific and artistic creativity, divergent thinking, and political liberalism (Judge et al., 2002). People who score low on openness tend to be conventional and traditional in their outlook and behavior and prefer familiar routines to new experiences, and generally have a narrower range of interests. Openness to experience has been found to "...have modest associations with happiness, positive affectivity, and quality of life and to be unrelated to life satisfaction, negative affectivity, and overall affect in people in general" (Steel, Schmidt, & Shultz, 2008, p. 145). Meta-analytic investigations of relationship between personality and job-related factors such as job satisfaction (Judge et al., 2002), deviance (Berry et al., 2007), and burnout (Alarcon, Eschleman, & Bowling, 2009) have found that openness to experience is the least predictive of the Big Five Factors. However, since it is plausible that exposure to harassment will make employees more reserved in social situations and therefore withdraw from interactions it is likely that harassment influence the openness trait through a reversed mechanism where bullying leads to lower levels of openness to new experiences. Such a reversed association between the variables was established in the previously described study by Nielsen and Knardahl (2015) in that exposure to bullying at baseline was associated with a significant decrease in scores on openness two years later. Consequently, the following hypothesis will be tested:

H5. Openness is negatively related to exposure to workplace harassment.

4. Moderating variables

While there are good reasons to expect relationships between the FFM-traits and exposure to harassment across studies, it is also likely that these relationships are influenced by specific characteristics of individual primary studies. In order to determine the impact of study

characteristics on the association between personality and harassment we will conduct a series of moderator analyses. First, because there are differences in the use of conceptualizations and operationalizations of harassment in geographical regions, and especially between North America and Europe (Einarsen et al., 2011; Keashly & Jagatic, 2003; Tepper & Henle, 2011) we will test whether any relationships between FFM-traits and harassment varies between geographical regions.

Secondly, previous research has shown that findings on harassment are dependent upon both sampling- and measurement method. For instance, research on prevalence estimates of harassment have shown that non-probability samples produce more profound estimates of harassment compared to probability samples, thus questioning the external validity of such samples (Ilies, Hauserman, Schwochau, & Stibal, 2003; Nielsen & Einarsen, 2008; Nielsen et al., 2010; Tepper & Henle, 2011). As for measurement method, it has been found that studies which measure harassment with a behavioral experience inventory provide both higher prevalence rates of harassment and stronger associations with relevant correlates compared to studies based on single item self-labeling measures of harassment (Nielsen & Einarsen, 2012; Nielsen et al., 2010). Following these findings we will in the current meta-analysis examine whether relationships between FFM-traits and harassment are influenced by probability vs. non-probability sampling as well as behavioral experience vs. self-labeling measures of harassment.

Finally, due to distinctions between different forms of harassment with regard to the nature, persistency and severity of harassing behaviors it is possible that associations with personality traits varies between the various types of harassment which have been investigated in the literature such as workplace bullying, incivility, abusive supervision, social mistreatment, emotional abuse and so on. In order to determine the impact of conceptual differences between different forms of harassment with regard to relationships with FFM-traits we will include form of harassment as a potential moderator.

5. Method

5.1. Literature search

To identify relevant studies on the relationships between the factors in the FFM and workplace harassment, we followed the literature search strategies proposed by Durlak and Lipsey (1991). This included the use of multiple searches in several databases, multiple broad key words, and clear and exhaustive inclusion and exclusion criteria. *Harassment, aggression, bullying, mobbing, social undermining, incivility, abusive supervision, emotional abuse, hostile working environment, exclusion, ostracism, and victimization/victimisation* are all concepts that have been used to describe exposure to systematic psychological harassment at work (Einarsen et al., 2011; Hershcovis, 2011; Zapf & Einarsen, 2005). They were each combined with the keywords: *personality, dispositions, traits, Big-5/Big-Five, Five-Factor Model, extraversion, introversion, neuroticism, emotional (in-)stability, openness, intellect, conscientiousness, and agreeableness*. Workplace harassment is investigated not only in psychology, but also in related disciplines such as medicine, sociology, and law. Therefore, we conducted a broad literature search in databases from various disciplines: PsychINFO, ISI Web of Science, Science Direct, Pubmed, and Proquest. Internet searches via www.google.com and Google Scholar were also performed to find other available articles. Further, the authors' personal collection of publications on workplace harassment gathered from around 1988 to the present was examined to find any missing publications. As a final step, citations in the collected publications were inspected. Following the description by Lipsey and Wilson (2001), the coding form included information about personality factors, sample size, effect sizes, year study published, country of origin, response rate, sampling method, form of harassment investigated, and how harassment was measured. The literature search was finalized in January 2015.

5.2. The studies included

To be included in this meta-analysis, studies had to report findings on the relationship between workplace harassment and individual dispositions in the form of the traits included in the FFM. To have consistent indicators of the FFM-traits, and to avoid overrepresentation of specific sub-facets of each trait, only studies that had measures of one or more full traits were included. Studies which only assessed sub-facets of the full traits were not included in this meta-analysis. Third, studies had to provide the zero-order correlations between the investigated personality traits and workplace harassment, or provide sufficient information for effect sizes to be calculated. Studies that lacked this information (and where it could not be obtained from the authors) or reported effect sizes that could not be transformed into correlations were excluded from the analyses. Unlike some previous meta-analyses on harassment (Bowling & Beehr, 2006; Hershcovis, 2011), studies on interpersonal conflict were not included in the current meta-analysis. As interpersonal conflict can refer to one-off minor episodes between two parties of equal strength rather than being persistent and systematic exposure to aggression where one of the parties perceive him- or herself to be the inferior part, the concept of interpersonal conflict is not in line with the definition of harassment as it is presented in the introduction of this paper and studies on conflict do therefore not warrant inclusion in this meta-study.

In line with previous meta-analyses within the field (Bowling & Beehr, 2006; Hershcovis & Barling, 2010; Nielsen & Einarsen, 2012), studies that did not include appropriate data (i.e., descriptive data, no measure of harassment, a higher level of analysis (group or organizational level), inappropriate variables, theoretical papers, or papers

with qualitative data), or for which we were unable to obtain missing information from the corresponding author, were excluded from the analyses. To avoid double-counting variables and effect sizes from overlapping samples, findings were excluded if they had previously been reported in another study (Senn, 2009).

In total, we identified 32 papers on the relationships between workplace harassment and one or more of the factors in the FFM that were in line with our inclusion criteria. Two studies had a prospective research design, whereas the remaining studies relied on cross-sectional designs. Four studies provided data from multiple samples, resulting in a total of 36 different samples to be included in the meta-analysis. All studies were based on self-reported data provided by targets as opposed to perpetrators or third parties. In all, 101 effect size measures of the relationship between workplace harassment and FFM-traits were included in this meta-analysis. The total sample size for the 36 independent samples was 13,896 respondents (Mean $N = 386$). All studies included in the meta-analysis, as well as their characteristics, are presented in Table 1.

5.3. Meta-analytic approach

All meta-analyses and analyses of publication bias were carried out using the Comprehensive Meta-Analysis (version 2 and 3) software developed by Biostat (Borenstein, Hedges, Higgins, & Rothstein, 2005). In contrast to some other meta-analytic methods, such as the Hunter and Schmidt approach (Hunter & Schmidt, 2004), which weights studies by sample size, the Comprehensive Meta-analysis program weights studies by inverse variance. Inverse-variance weighting is a method of aggregating two or more random variables where each random variable is weighted in inverse proportion to its variance in order to minimize

Table 1
Characteristics of the studies included in the meta-analysis.

Study	Country	Sample size	Sampling method	Measurement method harassment	Type of harassment investigated	Personality traits investigated
Aquino and Bommer (2003)	USA	448	Probability	Behavioral	Victimization	N
Aquino and Byron (2002)	USA	131	Non-probability	Behavioral	Victimization	N
Balducci, Fraccaroli, and Schaufeli (2011)	Italy	609	Non-probability	Behavioral	Bullying	N
Bamberger and Bacharach (2006)	USA	1473	Probability	Behavioral	Abusive supervision	O, C, E, A, N
Casimir, McCormack, Djurkovic, and Nsubuga-Kyobe (2012)	Australia	631	Non-probability	Behavioral	Bullying	N
Coyne et al. (2000) Sample 1	UK	60	Non-probability	Self-label	Bullying	O, C, E, A, N
Coyne et al. (2000) Sample 2	UK	60	Non-probability	Self-label	Bullying	O, C, E, A, N
Coyne et al. (2003)	UK	149	Non-probability	Self-label	Bullying	C, E, N
Deniz and Gulen Ertosun (2010)	Turkey	186	Non-probability	Behavioral	Bullying	E, N
Djurkovic et al. (2006)	Australia	127	Non-probability	Behavioral	Bullying	N
Duffy, Shaw, Scott, and Tepper (2006) Sample 1	USA	333	Non-probability	Behavioral	Social undermining	N
Duffy et al. (2006) Sample 2	USA	291	Non-probability	Behavioral	Social undermining	N
Glasø et al. (2007)	Norway	144	Non-probability	Self-label	Bullying	O, C, E, A, N
Henle and Gross (2014)	USA	222	Non-probability	Behavioral	Abusive supervision	C, A, N
Hitlan and Noel (2009)	USA	104	Probability	Behavioral	Ostracism	O, C, E, A, N
Jockin, Arvey, and McGue (2001)	USA	466	Probability	Behavioral	Victimization	C, A, N
Lind et al. (2009)	Norway	496	Probability	Self-label	Bullying	O, C, E, A, N
Mathisen, Ogaard, and Einarsen (2012)	Norway	207	Non-probability	Behavioral	Victimization	O, C, E, A, N
Mawritz, Dust, and Resick (2014)	USA	221	Non-probability	Behavioral	Abusive supervision	C
Milam et al. (2009)	USA	179	Non-probability	Behavioral	Incivility	E, A, N
Naimon, Mullins, and Osatuke (2013)	USA	102	Non-probability	Behavioral	Incivility	O, C, E, A, N
Nandkeolyar, Shaffer, Li, Ekkirala, and Bagger (2014) study 1	India	363	Non-probability	Behavioral	Abusive supervision	C
Nandkeolyar et al. (2014) study 2	India	105	Non-probability	Behavioral	Abusive supervision	C
Nielsen and Knardahl (2015)	Norway	3060	Non-probability	Self-label	Bullying	O, C, E, A, N
Persson et al. (2009)	Sweden	216	Non-probability	Self-label	Bullying	E, N
Rammsayer et al. (2006)	Germany	309	Non-probability	Self-label	Bullying	O, C, E, A, N
Scott and Judge (2013) study 1	USA	130	Non-probability	Behavioral	CWB	A, N
Scott and Judge (2013) study 2	USA	149	Non-probability	Behavioral	CWB	A, N
Sulea, Fine, Fischmann, Sava, and Dumitru (2013)	Romania	236	Non-probability	Behavioral	Abusive supervision	C, A, N
Taylor and Klumper (2012)	USA	404	Non-probability	Behavioral	Incivility	C, A, N
Taylor, Bedeian, and Klumper (2012)	USA	190	Non-probability	Behavioral	Incivility	C, A, N
Tepper (2001)	USA	388	Probability	Behavioral	Abusive supervision	C, E, A, N
Vartia (1996)	Finland	913	Probability	Self-label	Bullying	N
Wang, Harms, and Mackey (2014)	USA	376	Non-probability	Behavioral	Abusive supervision	O, C, E, A, N
T.-Y. Wu and Hu (2013)	China	210	Non-probability	Behavioral	Abusive supervision	O, E, N
Wu, Wei, and Hui (2011)	China	208	Probability	Behavioral	Ostracism	C, E, A

Note. O = Openness; C = Conscientiousness; E = Extraversion; A = Agreeableness; N = Neuroticism.

the variance of the weighted average. The inverse variance is roughly proportional to sample size, but is a more nuanced measure, and serves to minimize the variance of the combined effect (Borenstein, Hedges, & Rothstein, 2007).

The Q_{within} -statistic was used to assess the heterogeneity of studies. A significant Q_{within} -value rejects the null hypothesis of homogeneity. An I^2 -statistic was computed as an indicator of heterogeneity in percentages. Increasing values show increasing heterogeneity, with values of 0% indicating no heterogeneity, 50% indicating moderate heterogeneity, and 75% indicating high heterogeneity (Higgins, Thompson, Deeks, & Altman, 2003). As considerable heterogeneity was found in our analyses, we calculated the pooled mean effect size using the random effects model. Random effects models are recommended when accumulating data from a series of studies where the effect size is assumed to vary from one study to the next, and where it is unlikely that studies are functionally equivalent (Borenstein et al., 2007). Random effects models allow statistical inferences to be made to a population of studies beyond those included in the meta-analysis (Berkejon & Baldwin, 2009). Under the random effects model two levels of sampling and two sources of error are taken into consideration. First, the true effect sizes are distributed about the mean with a variance that reflects the actual distribution of the true effects about their mean. Second, the observed effect for any given effect size will be distributed about that effect size with a variance that depends primarily on the sample size for that study. Therefore, in assigning weights to estimate the mean one need to deal with both sources of sampling error, that is within studies and between studies (Borenstein et al., 2007; Borenstein, Hedges, Higgins, & Rothstein, 2009).

The “one-study-removed” procedure was used to determine whether the overall estimates between harassment and FFM-traits were influenced by outlier-studies. This sensitivity analysis provides average estimates for a given relationship by running a series of analyses where the overall effect size is re-estimated by removing one study in each successive analysis. That is, in the first analysis all studies except the first are included, in the second all studies except the second are included, and so on. It is a potential shortcoming of meta-analyses that overall effect sizes can be overestimated due to a publication bias in favor of significant findings. To approach this “file drawer problem” the following four indicators of publication bias were included: Funnel Plot, Rosenthal’s Fail-Safe N, Duval and Tweedies Trim and fill procedure, and Egger’s Regression Intercept (Borenstein et al., 2009). The procedure proposed by Hedges and Olkin (1985) was used to investigate potential moderator effects. The presence of a moderator is indicated by a statistically significant Q_{between} , which suggests a difference between the mean effect sizes across groups.

6. Results

6.1. Descriptive findings

With the exception of one study (Vartia, 1996), all articles included in the meta-analysis were published in the 2000’s (15 studies) or

2010s (16 studies). Altogether 47% of the samples originated from USA, whereas 33% originated from European countries (Finland, Germany, Italy, Norway, Romania, Sweden, and UK). The remaining studies were from Australia, China, India, and Turkey. For the 18 studies that provided information on survey response rate, the average response rate was 60.4%. This rate is somewhat higher than the average response rate of 52.7% which has been established for surveys from occupational health research in general (Baruch & Holtom, 2008). Following the criteria for probability and non-probability study designs developed by Ilies, Hauserman, Schwochau, and Stibal (Ilies et al., 2003), 25% of the samples were based on probability sampling procedures, whereas 75% were based on non-probability sampling. A behavioral experience inventory measuring the respondents’ exposure to different harassing behavior was used to measure harassment in 72% of the studies, whereas the remaining employed a self-labeling procedure asking whether the respondent perceive him- or herself as a victim of harassment (see Nielsen et al., 2011 for description of the methods). Exposure to harassment was conceptualized in the included studies as “workplace bullying” (13 samples), “abusive supervision” (9 samples), “victimization” (4 samples), “incivility” (4 samples), social undermining (2 samples), ostracism (2 samples), or interpersonal counterproductive workplace behavior (2 samples).

6.2. Meta-analysis

Overall relationships between the FFM-traits and workplace harassment are displayed in Table 2. In the upcoming paragraphs we will describe findings on relationships between each trait in the FFM and harassment and analyses of publication bias in detail.

6.2.1. Extraversion

Altogether 17 samples, comprising 7717 respondents, reported associations between extraversion and workplace harassment. A significant average weighted correlation of $r = -0.10$ (95% CI = -0.17 to -0.02 ; $p < 0.05$) was found for the overall association between exposure to harassment and extraversion. High levels of heterogeneity was found between the included samples ($Q_{\text{within}} = 132.88$; $p < 0.001$; $I^2 = 87.96$). A sensitivity analysis removing one study at a time resulted in 17 point estimates (one for each removal) with point estimates ranging from $r = -0.11$ to $r = -0.05$. As the -0.05 estimate was non-significant, these results indicate that the association between extraversion and harassment was dependent upon a single study (Coyne et al., 2000) and that the overall estimate should be interpreted with caution. A cumulative analysis ordered by the year the included studies were published indicated a small shift towards zero for each year (from 2000 to 2003). Yet, the established association between extraversion and harassment was consistent for studies published from 2009 and onwards. This shift seems to be caused by the fact that two out of three studies published before 2003 were conducted by the same research group through the use of the same measurement instruments. Both these studies were based small and specific samples with a case-control design, something which may have attenuated the

Table 2
Cross-sectional relationships between workplace harassment and Big-5 personality traits, total $N = 29,105$ (Random effects model).

Personality traits	K	N	Mean r	95% CI	80% PI	Q_{within}	I^2	Tau	Tau ²	Fail safe N
Extraversion	17	7717	-0.10*	-0.17–0.02	-0.22–0.02	132.88**	87.96	0.14	0.02	85
Neuroticism	32	12,997	0.25**	0.18–0.30	0.10–0.39	389.52**	92.04	0.17	0.03	4040
Agreeableness	19	8843	-0.17**	-0.24–0.10	-0.30–0.04	176.05**	89.78	0.15	0.02	630
Conscientiousness	22	9343	-0.10*	-0.18–0.01	-0.25–0.06	285.49**	92.64	0.18	0.03	451
Openness	11	6689	0.04 ^{ns}	-0.01–0.08	-0.00–0.07	19.26 ^{ns}	48.09	0.04	0.00	4

Note. K = number of correlations; N = total sample size for all studies combined; mean r = average weighted correlation coefficient; 95% CI = lower and upper limits of 95% confidence interval; 80% PI = lower and upper limits of 80% prediction interval.

^{ns} = Not significant.

** $p < 0.001$.

* $p < 0.05$.

established associations. The Duval and Tweedie's Trim and Fill procedure revealed no missing studies to the right of the mean, thus leaving the point estimate unchanged. After checking for missing studies to the left, four missing studies were revealed, something which shifted the point estimate to $r = -0.16$ (95% CI = -0.24 to -0.08). The classic Fail Safe N resulted in 85 missing studies. Following the recommendations for interpretations by Sterne et al. (2011), a funnel plot provided no indications of missing studies. Following Egger's regression test, the intercept was significantly different from zero ($B0 = -2.51$; 95% CI = -4.99 to -0.04), thus indicating a minor asymmetry in the included studies. A meta-regression analysis showed that sample size of the included studies had no impact on the established estimates ($b = 0.00$, $p > 0.05$).

6.2.2. Neuroticism

The meta-analytical summary of studies on neuroticism included 32 independent samples with altogether 12,997 respondents. The random effects analysis provided a point estimate of $r = 0.25$ (95% CI = 0.18 – 0.30) for the association between neuroticism and exposure to workplace harassment. Analyses of heterogeneity showed considerable heterogeneity between studies ($Q_{\text{Within}} = 389.52$; $p < 0.001$; $I^2 = 92.04$). The one-study-removed resulted in 19 point estimates ranging from $r = 0.22$ to $r = 0.25$. The cumulative analysis by the year the included studies were published indicated relatively high consistency in estimates across years (range: 1996 to 2014). The Trim and Fill procedure revealed no missing studies to the left of the mean. Altogether nine missing studies were revealed after checking for missing studies to the right of the mean. This changed the point estimate to $r = 0.31$ (95% CI = 0.24 – 0.38). The classic Fail Safe N resulted in 4040 missing studies. Following Egger's regression test, the intercept was significantly different from zero ($B0 = 3.92$; 95% CI = 1.47 – 6.36), thus indicating asymmetry in the included studies. A funnel plot for observed studies gave no indications of missing studies. A meta-regression analysis showed that sample size of the included studies had no impact on the established estimates ($b = 0.00$, $p > 0.05$).

6.2.3. Agreeableness

An average point estimate of $r = -0.17$ (95% CI = -0.24 to -0.10) was found between the agreeableness trait and workplace harassment. This estimate was based on 8843 respondents from 19 independent samples. The level of heterogeneity between samples was high ($Q_{\text{Within}} = 176.05$; $p < 0.001$; $I^2 = 89.78$). The one-study-removed resulted in 19 point estimates ranging from $r = -0.15$ to $r = -0.18$. The cumulative analysis by the year the included studies were published indicated high consistency in estimates across years (range: 2001 to 2014). The Trim and Fill procedure revealed no missing studies to the right or to the left of the mean. The classic Fail Safe N resulted in 630 missing studies. Following Egger's regression test, the intercept was significantly different from zero ($B0 = -4.05$; 95% CI = -6.41 to -1.70), thus indicating asymmetry in the included studies. The funnel plot for observed studies gave no indications of missing studies. A meta-regression analysis showed that sample size of the included studies had no impact on the established estimates ($b = 0.00$, $p > 0.05$).

6.2.4. Conscientiousness

Altogether 9343 respondents from 22 independent samples were included in analysis of the association between conscientiousness and workplace harassment. An average point estimate of $r = -0.10$ (95% CI = -0.18 to -0.01) was established between the variables. The level of heterogeneity was high ($Q_{\text{Within}} = 285.49$; $p < 0.001$; $I^2 = 92.64$). The one-study-removed analysis gave 22 estimates ranging from $r = -0.08$ to $r = -0.11$. The cumulative analysis ordered by publication year revealed that the five first samples (from studies published in 2000–2003) provided positive associations between conscientiousness and harassment, but that a shift towards negative associations between the variables occurred after 2003. All published studies from

2005 to this date produced negative associations. It is likely that this shift is caused by the impact of two early studies (Coyne, Chong, Seigne, & Randall, 2003; Coyne et al., 2000) which found strong positive associations between conscientiousness and harassment and that this positive association was leveled out by later studies that found negative associations. The Trim and Fill analysis revealed one missing study to the left of the mean, changing the point estimate to $r = -0.11$ (95% CI = -0.19 to -0.03). No missing studies were found at the right of the mean. The Fail Safe N analysis revealed 451 missing studies. Egger's regression test showed that the intercept did not deviate from zero ($B0 = 0.48$; 95% CI = -2.84 – 3.80). A funnel plot for observed studies showed gave no indications of publication bias. A meta-regression analysis showed that sample size of the included studies had no impact on the established estimates ($b = 0.00$, $p > 0.05$).

6.2.5. Openness

The analysis of the association between the openness trait and harassment was based on 6689 respondents from 11 independent samples. The analysis resulted in an average correlation of $r = 0.04$ (95% CI = -0.01 – 0.08), a finding which indicate that the variables are not related. Heterogeneity was moderate ($Q_{\text{Within}} = 19.26$; $p > 0.05$; $I^2 = 48.09$). The 11 estimates in the one-study-removed analysis ranged from $r = 0.02$ to $r = 0.04$. The cumulative analyses of publication year indicated a shift from positive to non-significant associations between openness and harassment. The Trim and Fill procedure revealed no missing studies to the right or to the left of the mean. The Fail Safe N analyses showed that four missing studies were needed in order to reduce the point estimate to zero. Egger's regression test indicated that the intercept did not deviate from zero ($B0 = 0.46$; 95% CI = -1.36 – 2.27). Inspection of the funnel plot suggested that there were no publication bias. A meta-regression analysis showed that sample size of the included studies had no impact on the established estimates ($b = 0.00$, $p > 0.05$).

6.3. Moderating factors

Geographical region, sampling procedure (probability vs. non-probability), measurement method for harassment (behavioral experience vs. self-labeling), and type of harassment were tested as moderators of the relationships between exposure to harassment and the FFM-traits. For geographical regions countries were coded into the categories "USA", "Europe", and "Asia/Oceania". In order to achieve satisfying statistical power for each category, type of harassment classified into "Bullying", "Abusive supervision" and an "Other"-category comprising victimization, social undermining, ostracism, incivility and counterproductive workplace behavior. Findings from the moderator analyses are presented in Table 3. The moderator analyses for extraversion and openness resulted in insignificant Q_{Between} -values, thus indicating the established associations are consistent across geographical region, type of sample and measurement method, and form of harassment.

The moderator analyses showed that estimates of associations between harassment and neuroticism were conditioned by geographical region ($Q_{\text{Between}} = 6.11$; $df = 2$; $p < 0.05$). Studies from Europe ($r = 0.33$; 95% CI = 0.21 – 0.44) provided stronger associations compared to studies from USA ($r = 0.21$; 95% CI = 0.13 – 0.29) and Asia/Oceania ($r = 0.16$; 95% CI = 0.10 – 0.22). The overall associations between harassment and neuroticism was also moderated by measurement method ($Q_{\text{Between}} = 4.48$; $df = 1$; $p < 0.05$) and type of harassment examined ($Q_{\text{Between}} = 9.10$; $df = 2$; $p < 0.05$), whereas sampling procedure ($Q_{\text{Between}} = 0.02$; $df = 1$; $p > 0.05$) had no impact on the associations between harassment and neuroticism. As for differences between measurement methods, studies based on the self-labeling method ($r = 0.38$; 95% CI = 0.22 – 0.52) reported stronger correlations compared to the behavioral experience method ($r = 0.19$; 95% CI = 0.14 – 0.26). The findings on type of harassment showed that studies on workplace bullying ($r = 0.31$; 95% CI = 0.20 – 0.41) reported stronger correlations

Table 3
Findings from moderator analyses of point estimates for the correlation between FFM-traits and exposure to workplace harassment (Number of studies for each effect size, K, in brackets).

Moderator		Point estimate for the FFM-traits				
		Extraversion	Neuroticism	Agreeableness	Conscientiousness	Openness
Geographical region						
	Asia/Oceania	−0.14* (2)	0.16*** (4)	−0.27*** (1)	−0.15*** (3)	0.05 ^{NS} (2)
	Europe	−0.16* (9)	0.33*** (12)	−0.05 ^{NS} (6)	0.03* (9)	0.07 ^{NS} (5)
	USA	−0.01 (6)	0.21*** (16)	−0.22*** (12)	−0.19*** (10)	0.01 ^{NS} (4)
		$Q_{\text{Between}} = 4.96^{\text{NS}}$	$Q_{\text{Between}} = 6.11^*$	$Q_{\text{Between}} = 13.62^{***}$	$Q_{\text{Between}} = 14.19^{***}$	$Q_{\text{Between}} = 1.66^{\text{NS}}$
Sampling procedure						
	Non-probability	−0.12* (12)	0.25*** (24)	−0.14*** (13)	−0.08* (16)	0.05 ^{NS} (7)
	Probability	−0.07 ^{NS} (5)	0.24** (8)	−0.23** (6)	−0.15 ^{NS} (6)	0.01 ^{NS} (4)
		$Q_{\text{Between}} = 0.48^{\text{NS}}$	$Q_{\text{Between}} = 0.02^{\text{NS}}$	$Q_{\text{Between}} = 0.94^{\text{NS}}$	$Q_{\text{Between}} = 0.49^{\text{NS}}$	$Q_{\text{Between}} = 0.97^{\text{NS}}$
Measurement method						
	Behavioral experience	−0.04 ^{NS} (9)	0.20*** (23)	−0.21*** (15)	−0.17*** (15)	0.00 ^{NS} (7)
	Self-labeling	−0.18* (8)	0.38*** (9)	−0.02 (4)	0.07 ^{NS} (7)	0.09 ^{NS} (4)
		$Q_{\text{Between}} = 2.73^{\text{NS}}$	$Q_{\text{Between}} = 4.48^*$	$Q_{\text{Between}} = 11.34^{***}$	$Q_{\text{Between}} = 12.88^{***}$	$Q_{\text{Between}} = 2.69^{\text{NS}}$
Type of harassment						
	Abusive supervision	−0.00 ^{NS} (3)	0.12** (5)	−0.09** (5)	−0.20** (8)	0.01 ^{NS} (3)
	Bullying	−0.16* (9)	0.31*** (13)	−0.02 ^{NS} (4)	0.07 ^{NS} (7)	0.09 ^{NS} (4)
	Other	−0.10 ^{NS} (5)	0.23*** (14)	−0.27*** (10)	0.14*** (7)	−0.03 (4)
		$Q_{\text{Between}} = 5.7^{\text{NS}}$	$Q_{\text{Between}} = 9.10^*$	$Q_{\text{Between}} = 15.93^{***}$	$Q_{\text{Between}} = 14.26^{***}$	$Q_{\text{Between}} = 3.38^{\text{NS}}$

^{NS} Not significant.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

than studies on abusive supervision ($r = 0.12$; 95% CI = 0.05–0.19) and “victimization, social undermining, ostracism, incivility or counterproductive workplace behavior” ($r = 0.23$; 95% CI = 0.14–0.31).

For agreeableness, the overall estimate was not influenced by sampling procedure. However, a significantly ($Q_{\text{Between}} = 13.62$; $df = 2$; $p < 0.001$) higher estimate was found in studies from USA ($r = -0.22$; 95% CI = -0.31 to -0.12) compared to Europe ($r = -0.05$; 95% CI = -0.11 – 0.02). In addition, studies based on the behavioral experience method ($r = -0.22$; 95% CI = -0.28 to -0.13) provided significantly ($Q_{\text{Between}} = 11.34$; $df = 1$; $p < 0.001$) higher correlations between agreeableness and harassment than studies based on the self-labeling method ($r = -0.02$; 95% CI = -0.10 – 0.05). As for type of harassment, studies which investigated “victimization, social undermining, ostracism, incivility or counterproductive workplace behavior” ($r = -0.27$; 95% CI = -0.35 to -0.17) reported significantly ($Q_{\text{Between}} = 15.93$; $df = 2$; $p < 0.001$) higher estimates of the association than studies on abusive supervision ($r = -0.09$; 95% CI = -0.16 to -0.03) and studies on bullying ($r = -0.02$; 95% CI = -0.10 – 0.05).

With regard to the estimates of the association between conscientiousness and harassment, we found similar moderator effects as was established for agreeableness. That is, the overall estimate was not influenced by sampling procedure, but significant moderator effects were found for geographical region ($Q_{\text{Between}} = 14.19$; $df = 2$; $p < 0.001$), measurement method ($Q_{\text{Between}} = 12.88$; $df = 1$; $p < 0.001$), and type of harassment ($Q_{\text{Between}} = 14.26$; $df = 2$; $p < 0.001$). As for geographical region, studies from USA ($r = -0.19$; 95% CI = -0.29 to -0.09) and Asia/Oceania ($r = -0.15$; 95% CI = -0.23 to -0.08) reported significantly higher estimates than studies from Europe ($r = -0.03$; 95% CI = -0.05 – 0.11). The findings on measurement method showed that studies based on the behavioral experience method ($r = -0.17$; 95% CI = -0.25 to -0.09) at average reported higher estimates than studies based on the self-labeling method ($r = -0.07$; 95% CI = -0.04 – 0.17). Finally, studies in the abusive supervision category ($r = -0.20$; 95% CI = -0.32 to -0.08) and in the “victimization, social undermining, ostracism, incivility, and counterproductive workplace behavior” category ($r = -0.14$; 95% CI = -0.20 to -0.08) reported significantly higher estimates than studies on workplace bullying ($r = -0.07$; 95% CI = -0.04 – 0.17).

7. Discussion

The overarching aim of this meta-analytical investigation was to determine whether exposure to workplace harassment is related to the personality traits in the FFM and whether associations are influenced by moderating factors in the form of geographical differences, sampling method, measurement method for assessing workplace harassment, and type of harassment investigated. It was hypothesized that workplace harassment was positively related to neuroticism and negatively related to extraversion, agreeableness, conscientiousness, and openness. With the exception of a non-significant relationship between harassment and openness, all hypotheses were supported. Additional analyses of potential outlier-studies and publication bias indicated that the established associations were robust. The exception being the association between extraversion and harassment as the sensitivity analysis indicated that the association was somewhat attenuated. The findings from the moderator analyses showed that geographical differences, measurement method, and type of harassment investigated had some impact on the established relationships between the FFM-traits and exposure to harassment.

The results of this meta-analytic review show that exposure to harassment is related to the personality traits of targets. This suggests that research on workplace harassment needs to consider individual dispositions when explaining the potential antecedents and outcomes of harassment. Following Cohen's (1988) interpretation of effect sizes, neuroticism had a moderate average association with harassment and seems therefore to be especially important with regard to understanding the nature of harassment. Agreeableness had a small to moderate relationship with harassment, while both conscientiousness and extraversion had only small associations with harassment. As this is the first meta-analytic review of the relationship of all FFM-traits with workplace harassment, these results fill an important gap in the literature.

The finding that neuroticism emerged as the strongest and most consistent correlate of exposure to harassment came as no surprise as this trait has been highlighted in many theoretical models of harassment (Bowling & Beehr, 2006; Djurkovic, McCormack, & Casimir, 2006). Hence, this meta-analysis has now substantiated a long assumed relationship between neuroticism and exposure to harassment. In some

studies, neuroticism has been treated as a control variable, or bias, which is used to adjust relationships between harassment and outcomes (e.g., [Tepper, 2001](#)). However, in order to be considered a bias, a variable must distort the assessment of a particular intended construct and it cannot be causally interlinked with the true underlying construct as either cause or effect ([Spector et al., 2000](#)). It has therefore been argued against controlling for neuroticism in studies on work stress because of the potential to remove substantive effects rather than actual bias. [Spector et al. \(2000\)](#) claim that one should only control for a variable when the variable in question has been demonstrated conclusively to be a bias and only a bias. In relation to harassment, the findings of the current study clearly indicate that neuroticism should be seen as a likely predictor and/or outcome of such experiences. Hence, rather than partialling out the impact of neuroticism, researchers should acknowledge neuroticism as an important factor with regard to the understanding of workplace harassment.

While it was hypothesized that the openness trait would be negatively associated with exposure to harassment, the findings revealed a non-significant relationship between the variables. While the empirical basis for this association was only 11 studies, and thereby smaller than for other FFM-traits, analyses of publication bias indicated no missing studies. The association between openness and harassment was also consistent across moderator variables. Hence, the findings seem to indicate that the established non-relationship is robust. Still, as the findings of the present meta-analysis are based on cross-sectional evidence only, it may be that there is a time-lagged relationship between harassment and openness. In the prospective study by [Nielsen and Knardahl \(2015\)](#) openness was not associated with victimization from bullying at baseline. However, the findings showed a significant negative association between baseline bullying and scores on the openness trait two years later. Following [Zapf, Dormann, and Frese \(1996\)](#) this time-lagged relationship may indicate the existence of a “sleeping effect” between the variables where the dysfunction in the openness trait appears a long time after the exposure to harassment has come to a stop.

In the introduction of this paper we presented four different causal explanations for how the FFM-traits can be related to harassment. While the findings from the meta-analyses provide support for a relationship between harassment and personality traits, the results are based on cross-sectional evidence. It should therefore be highlighted that the findings cannot be used to conclude whether dispositional characteristics among those harassed are causes or consequences of harassment. For instance, although a clear positive association has been established between exposure to harassment and neuroticism, we do not know whether a target becomes more neurotic after experiencing workplace harassment, if neurotic workers have a higher risk of becoming a target of harassment due their behavior, or if neurotic persons simply are more susceptible for perceiving behaviors as harassment. In order to further understand the impact of the specific mechanisms, longitudinal evidence, where behavior and perceptions are included as mediating factors, is needed.

Although the longitudinal evidence on relationships between personality dispositions and harassment is scarce, existing studies point to such a bidirectional relationship between the variables. In a 13 month two wave prospective study, [Bowling et al. \(2010\)](#) established a reciprocal relationship between negative affectivity and workplace bullying as negative affectivity was associated with subsequent workplace victimization ($r = 0.33$; $p < 0.01$), whereas baseline victimization also was related to increased negative affectivity ($r = 0.27$; $p < 0.01$) at follow-up ([Bowling et al., 2010](#)). In their 24 month two-wave study on workplace bullying and the FFM, [Nielsen and Knardahl \(2015\)](#) found evidence for neuroticism and conscientiousness as predictors of subsequent bullying, whereas bullying at baseline was negatively related to agreeableness, conscientiousness, and openness at follow-up. These longitudinal findings suggest that the relationship between personality and harassment can be thought of as a vicious circle, where harassment may lead to personality changes, which again

makes the target more vulnerable or “provocative” and predisposed to further attacks. This way it is possible to argue that personality plays an important role in the harassment process, yet without taking a stand whether the personality causes the harassment or if harassment causes the personality differences found between targets and non-targets ([Glasø et al., 2007](#)).

Although the findings of the present study suggest that extraversion, agreeableness, conscientiousness, and neuroticism are related to harassment, it should be emphasized that the actual nature of the relationships may vary across situations and groups of individuals. This is exemplified by research findings which have identified different subgroups of targets with regard to personality characteristics ([Glasø et al., 2009](#); [Matthiesen & Einarsen, 2001](#)). In a study on personality traits and workplace bullying ([Glasø et al., 2007](#)), significant differences emerged between victims and non-victims on four out of the FFM dimensions in that victims tended to be more neurotic and less agreeable, conscientious and extravert compared to non-victims. However, a cluster analysis revealed that the victim sample could be divided into two personality groups. Whereas the first cluster, comprising 64% of the victims, did not differ in their traits scores compared to a control group of non-victims, the victims in the second cluster tended to be far less extrovert, agreeable, conscientious, and open to experience, but more neurotic, than victims in the major cluster and the non-bullied control group. Hence, following these findings, future research on harassment and individual dispositions should take into account that differences exist among targets of harassment and that they may not be treated as a uniform group with a general victim personality profile.

The established associations between the FFM-traits and exposure to workplace harassment may also be explained by contextual and methodological factors, at least to some extent. The moderator analyses included in the current study did reveal significant variability in personality-harassment correlations. The findings showed that the point estimates for neuroticisms, agreeableness and conscientiousness with regard to harassment were moderated by geographical region, measurement method, and type of harassment investigated. Specifically, the subgroup analyses of harassment type showed that workplace bullying was more strongly associated with neuroticisms, and weaker associated with conscientiousness and agreeableness, compared to abusive supervision and other forms of harassment. With regard to measurement method, the self-labeling method gave lower estimates of associations between harassment and agreeableness/conscientiousness, and a stronger estimate with neuroticism, compared to the behavioral experience method. Finally, while the associations were significant in USA and Asia/Oceania, agreeableness and conscientiousness did not correlate with bullying in the European studies.

One possible explanation for these results is that findings on neuroticism, agreeableness and conscientiousness are especially sensitive to use of the measurement method for assessing workplace harassment. Previous research has showed that the self-labeling method provides both lower prevalence of harassment and weaker associations with correlates than the behavioral experience method ([Ilies et al., 2003](#); [Nielsen & Einarsen, 2012](#); [Nielsen et al., 2010](#)). As the self-labeling method is mainly used within research on workplace bullying, whereas studies on other forms of harassment rely on the behavioral experience method, the use of measurement method may also explain why studies on workplace bullying provide weaker associations with personality traits. Furthermore, as the majority of studies on workplace bullying which use the self-labeling method have been conducted in Europe, the use of the self-labeling method may also explain the geographical differences which were established in this meta-analysis.

7.1. Study limitations

There are some methodological considerations that should be taken into consideration in the interpretations of the findings of

our meta-analysis. First of all, all relationships between harassment and individual dispositions reported in the included studies are based on self-report data from self-administered questionnaires. This kind of data is prone to be influenced by common method bias as well as response set bias such as expectations, previous experiences, or health. This may cause both non-differential and differential misclassification, resulting in under- and overestimations of effects (Rugulies, 2012). In addition, previous research on harassment within a school bullying context has showed that a considerable subcategory of self-reported victims can be classified as “paranoid” victims who are not actually victims according to their peers (Gromann, Goossens, Olthof, & Krabbendam, 2012). This “paranoia” may inflate relationships with self-reported personality, for example in the link between victimization and neuroticism. However, research has also evidenced that the use of such witness reports may be problematic (Nielsen & Einarsen, 2013) and as harassment may be conducted with subtle and indirect behaviors it may be difficult for an observer to perceive, interpret, and understand the harassment (Hoel, Glasø, Hetland, Cooper, & Einarsen, 2010). Hence, the inclusion of other reports could actually underestimate the occurrence of harassment in studies on personality characteristics, thus questioning the idea of a “paranoid” victim.

The average response rate in the included studies was 60.4%. While this rate is somewhat higher than what is usually reported in survey studies (Baruch & Holtom, 2008), it should be noted that a non-response of almost 40% may have influenced the representativeness of the findings. Being based on cross-sectional study designs the aggregated effect sizes do not account for the cause and effect relationship between the included variables. To indicate causality, longitudinal study designs or experimental designs are needed. It should be kept in mind that this meta-analytical investigation builds mainly on published studies and doctoral dissertations. However, the analyses of publication bias suggested that it is unlikely that there exist unpublished studies that would notably influence the established associations.

This study has been restricted to investigate the relationships between dispositions and harassment as seen from the target perspective. In order gain a more comprehensive picture of the relationship, future studies should increase the focus on the dispositions of the perpetrators of harassment as this will provide a better understanding of personality as a potential antecedent of harassment (Berry et al., 2007; Glasø et al., 2009; Parkins, Fishbein, & Ritchey, 2006).

As the aim of this meta-analysis was to determine associations between exposure to workplace harassment and the full FFM-traits, we did not examine relationships between harassment and specific facets of these traits. Consequently, we did not include measures of facets in the meta-analysis. While this procedure has the advantage that it assures that our indicators of the overall FFM-traits were consistent and that no specific sub-facet would be over-represented in the analyses, there may be important associations between harassment and sub-facets that were not uncovered in our study. This should be seen as a limitation and a potential starting point for an upcoming study on workplace harassment and the FFM.

8. Conclusion

In conclusion, the current investigation shows that small to moderate associations exist between individual dispositions and reports of exposure to workplace harassment. To be able to fully understand the nature, causes, and consequences of harassment, personal characteristics should therefore always be considered when investigating harassment in the workplace. In order to replicate, and add to, the findings of this study, future research should investigate relationships between harassment and other dispositions than those included in this study, preferably with longitudinal study designs. In the current review it was found that out of 36 studies, only the study by Nielsen and Knardahl (2015) was based on time-lagged study design. Hence, further

prospective studies are needed to establish the nature of the associations between personality traits and harassment. To determine whether relationships between harassment and personality is explained by the perceptual-, the behavioral-, or the reversed effect mechanisms upcoming longitudinal research should include measures of perceptions and behavior as mediating variables.

One alternative framework that may be important with regard to explaining the personological basis of exposure to workplace harassment is core-self evaluations (Judge, Locke, Durham, & Kluger, 1998). The construct of core-self evaluations refers to a broad personality trait that is manifested through self-esteem, locus of control, generalized self-efficacy, and emotional stability. As the overarching trait of core-self-evaluation has been found to be positively related to job-related factors such as job-satisfaction (Judge et al., 1998), in-role and extra-role job performance, and perceptions of fairness (Chang, Ferris, Johnson, Rosen, & Tan, 2012), it may be that employees with low scores on this trait have a higher risk of perceiving the work environment as negative and thereby also have a higher risk of experiencing themselves as harassed. The Dark Triad is another subset of personality traits which may influence, or be influenced by, the behavior and perceptions of employees. Meta-analytic evidence has found that his cluster of traits, which comprises Machiavellianism, narcissism, and psychopathy, are associated with a range of work factors including counterproductive behavior (O’Boyle, Forsyth, Banks, & McDaniel, 2012). The traits have also been associated with exposure to, and enactment, of harassment in some primary studies (Linton & Power, 2013).

An important practical implication of this study is that an understanding of target personality characteristics can contribute to organizational measures and interventions directed at workplace harassment. For instance, as suggested by Bowling et al. (2010), organizations could use personality testing to identify likely victimization targets and to focus anti-victimization efforts at those individuals and their workplaces. Still this should be done with caution as an association between dispositions and harassment could be misinterpreted and abused in the form of victim blaming (Zapf & Einarsen, 2011). We will therefore emphasize that our findings should not in any way be used to blame the victims for being harassed. Ultimately, the perpetrators are always responsible for how they act in the workplace and how they treat other employees, as managers are responsible for the prevention and fair treatment of the parties when handling a given case. Employees should be allowed to be different, and certain personality characteristics, even a “deviating” one are not a legitimate reason for harassing someone, or for management to avoid intervening against harassment.

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