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Born to burnout: A meta-analytic path model of personality, job burnout, and work outcomes

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ABSTRACT

We quantitatively summarized the relationship between Five-Factor Model personality traits, job burnout dimensions (emotional exhaustion, depersonalization, and personal accomplishment), and absenteeism, turnover, and job performance. All five of the Five-Factor Model personality traits had multiple true score correlations of .57 with emotional exhaustion, .46 with depersonalization, and .52 with personal accomplishment. Also, all three dimensions of job burnout had multiple correlations of .23 with absenteeism, .33 with turnover, and .36 with job performance. Meta-analytic path modeling indicated that the sequential ordering of job burnout dimensions was contingent on the focal outcome, supporting three different models of the burnout process. Finally, job burnout partially mediated the relationships between Five-Factor Model personality traits and turnover and job performance while fully mediating the relationships with absenteeism.

1. Introduction

One of the most frequently studied phenomena in organizational research to date is how employees experience and respond to their work demands. While various conceptualizations of this process have been developed over time, the last 30 years has seen researchers coalesce around the notion of job burnout. Job burnout (referred to interchangeably with simply burnout) is a psychological syndrome involving chronic emotional and interpersonal stressors that individuals' experience at work and their subsequent responses to their tasks, organizations, coworkers, clients, and themselves (Cordes & Dougherty, 1993; Maslach, 2003; Maslach & Jackson, 1981; Maslach & Leiter, 2008). While originally focused on client-based professions (Maslach & Jackson, 1981), burnout researchers have since recognized the possibility for employees in more autonomous jobs (e.g., computer programmers) to experience burnout (Maslach, Schaufeli, & Leiter, 2001). The prevalence of burnout across job types is troubling when one also considers the multitude of negative individual and organizational outcomes of burnout. Individuals experiencing burnout may suffer from physical illnesses, sleep disturbances, work/family conflict, and substance abuse (Bacharach, Bamberger, & Conley, 1991; Belcastro & Gold, 1983; Jackson & Maslach, 1982; Maslach & Jackson, 1981). Organizations are also affected by employees experiencing job burnout because of increased turnover, absenteeism, decreased client and coworker interactions, and reduced job performance (Jackson, Schwab, & Schuler, 1986; Maslach et al., 2001; Parker & Kulik, 1995; Wright & Cropanzano, 1998).

Antecedents of job burnout are multidimensional and frequently grouped into three distinct levels: organizational, occupational, and individual (Maslach et al., 2001; Shirom, 2003). However, reviews continually point out the myopic focus of job burnout research on organizational- and occupational-level causes of burnout and the exclusion of individual-level causes, such as personality (Cordes & Dougherty, 1993; Kahill, 1988). The under-emphasized nature of individual differences in this

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topic area is evident in Lee and Ashforth's (1996) meta-analysis of the relationships between demands and resources and burnout dimensions, where personality receives only a passing mention. While burnout researchers have begun to study the relationship between personality, most notably the Five-Factor Model (FFM; Goldberg, 1990), and job burnout, this research can best be described as haphazard and scattered. Many of these studies focus only on a limited number of personality traits, allowing for relevant traits to be overlooked (Zellars, Perrewé, & Hochwarter, 2000), resulting in a somewhat unclear picture of the role personality plays in the burnout process. Therefore, we draw together these dispersed studies focused on various FFM personality traits and job burnout dimensions to gain a better understanding of an important set of individual-level predictors of burnout.

Similarly, a number of outcomes of job burnout have been methodically studied and catalogued (Lee & Ashforth, 1996) while others have received sparse attention from researchers. Specifically, absenteeism, turnover, and job performance represent major outcomes for organizations and employees but have been less frequently studied with burnout. While it has been argued that burnout should negatively relate to performance and positively relate to absenteeism and turnover, results from empirical studies have been equivocal (Bakker, Demerouti, de Boer, & Schaufeli, 2003; Firth & Britton, 1989; Halbesleben, 2003; Riolli & Savicki, 2006). Integrating burnout studies using these outcomes may clarify some the current confusion that exists regarding the effects of job burnout on work outcomes of critical importance to organizations. It is also possible for these mixed findings to be due, in part, to the various process models of job burnout used to test these relationships (Cordes, Dougherty, & Blum, 1997; Golembiewski, Munzenrider, & Stevenson, 1986; Leiter & Maslach, 1988). To clarify these relationships, we test three rival models, paying specific attention to the thematic correspondence of the most proximal burnout dimension and the focal outcome.

Finally, job burnout may serve a critical role in facilitating how personality affects individuals behaviors at work. For instance, extraverts' predisposition to experience positive emotions and optimism (Clark & Watson, 1999) may allow them to be less likely to experience various dimensions of burnout, and subsequently avoid possible negative work outcomes. In this paper, we use meta-analytic path modeling to conduct an exploratory investigation of the role of job burnout as a multidimensional mediator of personality–work outcome relationships. This addresses a clear void in the personality literature as researchers have clamored for theoretically-relevant, empirically-tested sets of mediators to help explain why pervasive personality–work outcome relationships exist (Barrick, Mount, & Judge, 2001).

In this study, we first empirically summarize a major individual-level antecedent of job burnout, personality, which to date has not been systematically reviewed. Second, we examine the processes and the magnitude of the relationships between job burnout and the major work outcomes of absenteeism, turnover, and job performance, which were not included in Lee and Ashforth's (1996) seminal meta-analysis on job burnout. Finally, using meta-analytic path modeling, we show job burnout functions as a mediator to explain how distal personality traits affect work outcomes. Ideally, practitioners will use the findings of this study to help identify individuals who are at greater risk of burnout. Early prediction would allow organizations to screen out individuals who are predisposed to burnout and implement preventive interventions more effectively (Maslach & Leiter, 2008) in an effort to decrease employee withdrawal behaviors (i.e., absenteeism and turnover) and increase performance.

1.1. Previous research on job burnout

The affective reaction and response to ongoing stress, known as burnout, can cause a deterioration or depletion of emotional and cognitive resources over time (Shirom, 2003). Although researchers have studied job burnout for over three decades, there is still some confusion as to what exactly the construct entails. For instance, some have mistakenly considered burnout as stress or depression (Ganster & Schaubroeck, 1991; Leiter & Durup, 1994). While researchers have defined work stress as demands that tax or exceed the abilities of the person at work (McGrath, 1976), burnout is actually individuals' patterns of response to work stressors (Shirom, 1989). Burnout is also different from depression because of its specific work context, whereas depression symptoms persist across all facets of individuals' lives (Schaufeli & Enzmann, 1998).

Maslach and Jackson (1981) argued that burnout is a multidimensional construct consisting of three separate, albeit related, dimensions: emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion arises from feelings of tension and frustration due to individuals' fears that they will be unable to provide previous levels of work performance (Cordes & Dougherty, 1993). Depersonalization, the second dimension of burnout, occurs when individuals distance themselves from their work by creating dehumanizing perceptions of tasks, clients, or coworkers (Kahn, Schneider, Jenkins-Henkelman, & Moyle, 2006; Schaufeli & Enzmann, 1998). By ignoring the qualities of work that were unique or engaging, individuals create buffers in an effort to relieve some of the negative outcomes they are experiencing (Maslach et al., 2001). The final dimension of job burnout is (reduced) personal accomplishment, which is defined as self-evaluative feelings of incompetence and lack of achievement at work (Maslach & Leiter, 2008). High levels of emotional exhaustion and depersonalization along with low levels of personal accomplishment are indicative of burnout.

Historically, antecedents of job burnout have been classified into three broad categories: organizational, occupational, and individual (Cordes & Dougherty, 1993; Shirom, 2003). At the organizational level, researchers have examined the effect of organizations' psychological environment on employees' job burnout (Pretty, McCarthy, & Catano, 1992). In addition, the depletion or scarcity of organizational resources, coupled with constant or even increased performance expectations may have drastic and deleterious effects on employees' burnout (Shirom, 2003). Occupational-level predictors of burnout initially centered on the characteristics of employees' interactions with clients (Cordes & Dougherty, 1993). Yet, as scholars began to

recognize the phenomenon occurred across all job types, quantitative job demands were found to be a significant predictor of burnout, whether those demands were interpersonally based or not (Maslach et al., 2001). As for individual-level predictors, demographics have been the primary individual differences used to predict job burnout (Cordes & Dougherty, 1993). Mundane findings at the individual level have lead researchers to assume, perhaps prematurely, that personal variables are weak predictors of job burnout (Maslach & Goldberg, 1998). However, using individuals' personalities to predict burnout should augment existing findings, especially when one considers personality is relatively stable (Conley, 1984) compared to unstable situational predictors such as workload (Maslach & Leiter, 2008).

1.2. Personality and job burnout

Modern theories of personality suggest that individuals' dispositions affect their interpretations of and reactions to their environments. In their cognitive–affective personality system (CAPS), Mischel and Shoda (1995, 1998) theorize that individuals' personalities affect how they encode or evaluate information from their environments. It is argued that individuals' mental encodings of their expectancies and beliefs, their affective and physiological reactions to events, and their self-regulatory plans control impulsive behavioral tendencies, frustrations, and fears. These encodings, referred to as cognitive–affective units, serve as mediators explaining personality–behavior relationships (Mischel & Ayduk, 2002).

While never specifically mentioned, job burnout may serve as a set of mental encodings that individuals have concerning their reactions and responses to ongoing stress at work. Mischel and Shoda (1998), however, explicitly discuss the value added by both dispositional- and process-based investigations to the understanding of how individuals cope and react to stress. Similar to coping, we argue that job burnout may serve to further both dispositional- and process-based models for explaining individuals' behavior at work. In doing so, we attempt to describe how individuals' stable personality traits affect their reactions to situational features at work and the subsequent behaviors exhibited. For example, neurotic individuals may evaluate and encode a change in their environment (e.g., increased workload) differently than more emotionally stable individuals who experienced the same change. Neurotic individuals may be predisposed to encoding this change such that they become emotional drained, distance themselves from the job, or feel they will not be able to achieve prior levels of performance which may affect subsequent work outcomes. Therefore, job burnout may be predicted by personality traits and serve as a mediating linkage between personality and work outcomes.

While CAPS is one of several theories put forth by researchers to explain how personality influences individuals' behaviors, significantly more agreement exists concerning the structures of personality. Over the last two decades, scholars in both psychology and management have recognized the FFM of personality as a primary representation of salient aspects of personality (Barrick & Mount, 1991; Digman, 1990; Goldberg, 1990; for dissenting view, see Block, 1995). Past research has found the FFM of personality to be valid across different age groups and cultures (Digman, 1997; McCrae & Costa, 1997). The FFM has also shown high degrees of trait-stability, with retest reliabilities ranging from .79 to .91, over a number of years (Costa & McCrae, 1988). The five generally held dimensions of the FFM are neuroticism, extraversion, agreeableness, conscientiousness, and openness (Goldberg, 1990).

1.3. Neuroticism and job burnout

Neurotic individuals are described as being anxious, insecure, depressed, fearful, and nervous (Costa & McCrae, 1985; Digman, 1990; Saucier & Ostendorf, 1999). Because these markers of neuroticism align so well with the components of job burnout, it should be no surprise that neuroticism is the FFM trait that has received the most attention from burnout researchers. For example, individuals high in neuroticism are likely to be anxious and fearful at, and away from, work. Consequently, we expect that these individuals will tend to exhibit high levels of emotional exhaustion based on their predisposition to negative feelings. Individuals high in neuroticism are also likely to focus on the negative aspects of a situation (Suls, Green, & Hillis, 1998) and are more likely to encode and recall negative information about the situation afterwards (Watson & Clark, 1984; Weiss & Cropanzano, 1996). At work, this may manifest in depersonalization, as neurotic individuals are more likely to ignore the unique or engaging, in favor of the dull and frustrating qualities of the work they perform. In addition, the insecure and negative outlooks held by these individuals should lead them to hold negative evaluations of their competence level and personal accomplishment at work.

Hypothesis 1:. Neuroticism will be positively related to (a) emotional exhaustion and (b) depersonalization, and negatively related to (c) personal accomplishment.

1.4. Extraversion and job burnout

Extraverts are more likely to experience positive emotions, such as cheerfulness, enthusiasm, and optimism, compared to introverts (Clark & Watson, 1999). These positive emotions should make extraverts hopeful about their future work performance, leading to lower levels of emotional exhaustion. Likewise, the increased likelihood of positive emotions should influence not just their evaluations of future work but also their current evaluations. Extraverts should have a more favorable and positive view of their level of job-related self-efficacy (Judge & Ilies, 2002) and personal accomplishment than introverts, who tend to experience greater feelings of helplessness and lower levels of ambition (Saucier & Ostendorf, 1999). In addition,

extraverts seek affiliation and enjoy the interpersonal bonds they create (Lucas, Diener, Grob, Suh, & Shao, 2000). Depersonalization would appear to be unlikely in extraverts considering their enjoyment of interpersonal relationships is in direct opposition to distancing oneself from clients and coworkers (Maslach et al., 2001).

Hypothesis 2:. Extraversion will be negatively related to (a) emotional exhaustion and (b) depersonalization, and positively related to (c) personal accomplishment.

1.5. Agreeableness and job burnout

Agreeable individuals are warm, supportive, and good-natured (Goldberg, 1992; Peabody & Goldberg, 1989). Therefore, their cognitions about their future work performance should not lead to negative psychological conditions such as frustration and emotional exhaustion but rather a more 'nurturing' set of emotions that would allow them to cope with this uncertainty (Zellars et al., 2000). In fact, because of their adaptability and compliance, individuals higher in agreeableness are more likely to have a positive view of their jobs because of their tendency to have an understanding of the negative aspects of the work environment (Zimmerman, 2008). Consequently, their self-evaluations should not be swayed by thoughts of incompetence and reduced personal accomplishment. Agreeable individuals are also more likely to have successful interpersonal relationships because of their tendency toward feelings of affection and warmth (Goldberg, 1992). The success of these interpersonal relationships, along with their concern for others, make buffers between themselves and others at work unnecessary, leading to lower depersonalization.

Hypothesis 3:. Agreeableness will be negatively related to (a) emotional exhaustion and (b) depersonalization, and positively related to (c) personal accomplishment.

1.6. Conscientiousness and job burnout

Conscientious individuals should be less likely to experience emotional exhaustion because of their work ethic and perseverance (Costa & McCrae, 1985; Saucier & Ostendorf, 1999). These dispositions should allow them to avoid work performance reductions and the subsequent feelings of anxiety and nervousness that are characteristic of emotional exhaustion. When one considers their efficient and hardworking nature, it is not surprising that conscientious individuals are achievement-orientated (Costa & McCrae, 1985). Conscientious individuals' tendencies to have strong work ethic and achievement-orientation would likely prevent them from purposefully distancing themselves from their work, as doing so would run counter to their focusing on accomplishing their work-related goals (Judge & Ilies, 2002) and being dependable in the eyes of others (Barrick & Mount, 1991). Their achievement-orientation should also allow individuals high in conscientiousness to avoid feelings of decreased personal accomplishment, as it is unlikely they would perceive themselves as unproductive.

Hypothesis 4:. Conscientiousness will be negatively related to (a) emotional exhaustion and (b) depersonalization, and positively related to (c) personal accomplishment.

1.7. Openness and job burnout

Individuals who are high in openness tend to be more intellectually curious and open-minded about their environments (Costa & McCrae, 1985; Peabody & Goldberg, 1989). Because of this outlook, thoughts about future work situations that contain uncertainty or ambiguity should not elicit feelings of uneasiness and apprehension; instead, open individuals are likely to look forward to such opportunities. Therefore, individuals high in openness are less likely to become emotionally exhausted from frustration and anxiety when contemplating whether or not they will be able to perform well in these future work situations. Open individuals are also less likely to view their struggles at work as a lack of achievement or competence, but rather as an opportunity for personal growth (Zimmerman, 2008). However, those low in openness are characterized as close-minded and shortsighted (Hofstee, de Raad, & Goldberg, 1992). When faced with stressors at work, less open individuals may be inclined to adopt strategies that are quick fixes, yet suboptimal in the long run, such as depersonalizing their work.

Hypothesis 5:. Openness will be negatively related to (a) emotional exhaustion and (b) depersonalization, and positively related to (c) personal accomplishment.

1.8. Job burnout, absenteeism, turnover, and job performance

While Lee and Ashforth's (1996) previous meta-analysis on job burnout investigated a host of individual outcomes related to burnout (e.g., organizational commitment, job satisfaction, turnover intentions), they did not attempt to quantitatively summarize relationships between job burnout dimension and the critical outcomes of absenteeism, turnover, and job performance. This is an unfortunate omission, as absenteeism, turnover, and job performance are extremely pertinent work outcomes to employers and burnout researchers alike. In fact, these three outcomes are the first behavioral outcomes

mentioned in Cordes and Dougherty's (1993) review of the literature. While theoretically, emotional exhaustion and depersonalization should positively relate to absenteeism and turnover and negatively relate to job performance, and the inverse is expected for personal accomplishment, this has not always borne out when the relationships were empirically tested. For instance, emotional exhaustion has been found to be positively related and unrelated to absenteeism and turnover (Bakker et al., 2003; Firth & Britton, 1989; Grandey, Dickter, & Sin, 2004; Riolli & Savicki, 2006) as well as positively and negatively related to various performance measures (Halbesleben & Bowler, 2007). Similar inconsistent findings can be found for depersonalization, with positive effects on absenteeism and turnover ranging from $r = .03$ to .27 (Bartoli, 2002; Iverson, Olekalns, & Erwin, 1998) and $r = .12$ to .29 (Firth & Britton, 1989; Gerits, Derksen, Verbruggen, & Katzko, 2005), respectively, and effects on job performance ranging from $r = -.60$ to .04 (Halbesleben, 2003; Sargent & Terry, 2000). Personal accomplishment has been shown to have significantly positive and negative relationships with absenteeism (Bartoli, 2002; Iverson et al., 1998) and performance (Balogun, HoeberleinMiller, Schneider, & Katz, 1996; Demerouti, Verbeke, & Bakker, 2005; Klein & Verbeke, 1999). In this study, we extend Lee and Ashforth's (1996) meta-analysis addressing attitudinal employee outcomes by examining the true magnitude of the relationships between job burnout dimensions and absenteeism, turnover, and job performance.

Emotional exhaustion and overextension could result in absenteeism, as employees may consider this temporary separation from work as a way to recover from their emotionally taxing job (Grandey et al., 2004). If employees suffering from emotional exhaustion reason that feelings of frustration and tension about their future work performance will not subside, then they could elect to take a more drastic form of separation, turnover, to recover. Emotionally exhausted employees may also resort to putting less effort into their work (Wright & Cropanzano, 1998), resulting in reduced quantity and quality of job performance.

Hypothesis 6:. Emotional exhaustion will be positively related to (a) absenteeism and (b) turnover, and negatively related to (c) job performance.

Employees high in depersonalization attempt to distance themselves from their work (Schaufeli & Enzmann, 1998), which may manifest by employees physically removing themselves from their work locations. Consequently, employees high in depersonalization should be more likely to temporarily distance themselves, via absenteeism, and permanently, via turnover. The possibility of depersonalized employees physically distancing themselves from their work is suggested in Lee and Ashforth's (1996) meta-analysis, as employees high in depersonalization had high levels of turnover intentions. Also, employees that have depersonalized their work in an effort to reduce experiencing negative outcomes have elected to make it more difficult to engage in, and be effective on, work activities (Maslach et al., 2001), which should result in lower job performance.

Hypothesis 7:. Depersonalization will be positively related to (a) absenteeism and (b) turnover, and negatively related to (c) job performance.

Personal accomplishment, which captures employees' self-evaluative sense of competence at work, has partial overlap with the construct of self-efficacy (Bandura, 1986; Wright & Bonett, 1997). Individuals who perceive themselves as incompetent at work and unlikely to be able to successfully complete their tasks are apt to avoid their work or reduce their effort (Bandura, 1997), both of which may result in absenteeism. Also, individuals low in personal accomplishment may reduce their efforts because of a lack of a sense of efficacy and elect to turnover instead. Inversely, employees that believe they have the ability to accomplish tasks at work and be highly efficacious should have higher levels of performance, as they are expected to exert more effort on work tasks and persist at tasks for longer (Bandura, 1997).

Hypothesis 8:. Personal accomplishment will be negatively related to (a) absenteeism and (b) turnover, and positively related to (c) job performance.

While we argue each burnout dimension will predict absenteeism, turnover, and job performance, as indicated by the results of Lee and Ashforth's (1996) previous meta-analysis, certain aspects of job burnout should be more proximal and stronger predictors of some work outcomes than others. For example, depersonalization was the strongest predictor of job satisfaction ($\rho = -.44$) while personal accomplishment was the strongest predictor of control coping ($\rho = .42$). By matching each job burnout dimension with the most thematic corresponding outcome, we are able to best assess the validity of these predictors of work outcomes (Ilies, Nahrgang, & Morgeson, 2007). For instance, emotionally exhausted individuals might believe being absent may help them replenish the resources drained from their emotionally taxing jobs. Therefore, we expect emotional exhaustion to be the most proximal predictor of absenteeism of the three burnout dimensions. Our argument is echoed by Schaufeli and Enzmann (1998), who note that absenteeism is most related to emotional exhaustion. Employees high in depersonalization actually distance themselves from their work and ignore its engaging aspect to reduce their negative responses. These individuals may see turnover as the only way to make the distancing more permanent. Similarly, researchers have argued that employees may seek a more extreme form of disengagement from work tasks, making voluntary turnover attractive (Riolli & Savicki, 2006). As such, we argue that of the three burnout dimensions, depersonalization will be the most proximal predictor of turnover. Further, while a reduced sense of personal accomplishment may result in employees temporarily or permanently withdrawing from an organization, self-efficacy theory (Bandura, 1997) suggests that employees' negative self-perceptions about their ability to accomplish tasks at work should have the strongest (negative) effect on job performance, as they are expected to substantially reduce their task-related effort.

Evidence supporting thematic correspondence between job burnout dimensions and specific work outcomes may help explain why different models of the job burnout process all have been supported in previous research (Maslach et al., 2001). For instance, early models of burnout developed by Maslach and colleagues argued that tensions and feelings of inadequacy that are characteristic of emotional exhaustion, coupled with the response of depersonalization, lead individuals to feel as if they are less productive than they once were (Leiter & Maslach, 1988; Maslach et al., 2001). Empirical findings have supported this sequential model where emotional exhaustion had a direct effect on reduced personal accomplishment, and an indirect effect through depersonalization (Cordes et al., 1997; van Dierendonck, Schaufeli, & Buunk, 1998). However, Golembiewski et al. (1986) found empirical support for a process model of job burnout that showed the progression as depersonalization, reduced personal accomplishment, with both possibly leading to escalating emotional exhaustion. Interestingly, pieces of both Maslach's and Golembiewski et al.'s models could be used to create a third process model in which depersonalization appeared last in the causal ordering. This final model would concur with Maslach's model of job burnout which put emotional exhaustion first and results in reduced personal accomplishment and depersonalization, with reduced personal accomplishment then modeled to lead to depersonalization as in Golembiewski and colleagues' (1986) model.

Based on our theoretical development using thematic correspondence between the final proposed linkage in the burnout process model and each specific work outcome, we expect that Maslach's model will best predict job performance, Golembiewski et al.'s (1986) model will best predict absenteeism, and the combined model (with emotional exhaustion having a direct effect on depersonalization and an indirect effect through personal accomplishment) will best predict turnover. It is also possible that these conflicting results in prior studies were due to sampling error exclusively. However, our use of meta-analytic path modeling attenuates concerns that the process models tested in this study are influenced by sampling error (Viswesvaran & Ones, 1995). Therefore, we test these three competing models' ability to predict absenteeism, turnover, and job performance.

1.9. Personality, job burnout, and work outcomes

One of the primary criticisms of personality research to date is the underdeveloped status of well-reasoned theoretical frameworks of mediators of personality–work outcome relationships (Barrick et al., 2001). Specifically, we do not know of a study that has empirically examined the possible mediating role of job burnout on the relationships between personality and absenteeism, turnover, and job performance. Therefore, we argue that job burnout dimensions are potentially useful mediators to the personality–work outcome relationships, as they are mechanisms that affect how employees behave at work. For instance, more agreeable individuals may be less likely to turnover (Zimmerman, 2008), in part because they are predisposed to maintain feelings of affection to others and less likely to depersonalize their work. The relationship between conscientiousness and job performance (Barrick et al., 2001) may be partially mediated by personal accomplishment, as conscientiousness employees' achievement-orientation should allow them to avoid feeling unproductive at work and the subsequent reduction of job performance. Therefore, we will combine the results from this study with previous meta-analytic findings to create an overall process model of how job burnout mediates the effects of personality on absenteeism, turnover, and job performance.

1.10. Moderators

In addition to the overall relationships with job burnout, we investigate three methodological factors that may moderate these overall relationships. First, we conduct moderator analyses for common method variance, with stronger effect sizes expected for studies where the researchers collected the measures at the same time or from the same source (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, we also note that the burnout literature suggests that self-reports may exhibit weaker relationships as those suffering from burnout may not be fully cognizant of the effects of burnout on their behaviors (Maslach & Goldberg, 1998). Second, for the relationships between the burnout dimensions and job performance we examine whether the relationships are similar for task vs. contextual performance measures (Organ & Ryan, 1995). We expect the relationships to be stronger with contextual performance, as many aspects of contextual performance are volitional and such behaviors are likely to be the first to be abandoned by employees who are suffering from job burnout. Finally, we examine whether the relationships with absenteeism hold true whether absenteeism is measured using frequency of the absences or duration of the absences (Johns, 1994). We do not have reason to expect the relationships to be different depending on the way absences are measured.

2. Method

2.1. Data collection

To identify studies for inclusion in the meta-analyses, we searched the American Psychological Association's PsycINFO (1887–2008) and Dissertation Abstracts International (1861–2008) databases. When searching the databases, we used several keywords and their variants including: *personality, positive affect, negative affect*, *performance, absenteeism, turnover,* along with the keyword *burnout*. In addition, we examined all published articles that cite Maslach and Jackson (1981) for

usable data. Finally, we also conducted a manual search of two comprehensive reviews (Lee & Ashforth, 1996; Thoresen, Kaplan, Barsky, de Chermont, & Warren, 2003) of the relevant literature. While there are various conceptualizations, along with their corresponding measures for job burnout, we focused exclusively on the Maslach Burnout Inventory (MBI, Maslach & Jackson, 1981) as it is the dominant burnout framework (Schaufeli & Enzmann, 1998). Each of the three dimensions is uniquely important as previous research has highlighted the dangers of treating job burnout as a unidimensional construct (Iwanicki & Schwab, 1981; Maslach & Jackson, 1981), with Maslach (2003) meticulously outlining situations where individuals would experience burnout with the presence of only two of the three components of burnout.

The search yielded 115 codable studies, producing 781 unique effect sizes. Eighty of the studies were published in journals, 33 of the studies were from dissertations, and two were from books. The articles that were not included either contained no data (i.e., were theory or review articles) or did not contain an effect size of the bivariate relationship between personality and job burnout or job burnout and one of the three work outcomes that could be converted into a zero-order correlation. All studies used in the meta-analyses are included in the references and indicated by an asterisk.

2.2. Data coding

We coded the characteristics of the 115 empirical studies on multiple dimensions, including the sample size, the names of the independent and dependent variables, the observed effect size, and the reliability of each variable. For the moderator analyses, each study was also coded based on whether personality and burnout were measured at the same time or at different times; whether both the variables were self-reports or one was a non-self-report; whether the performance measure represented overall, task, or contextual performance; the source of the performance ratings (either self-report or from other raters), and whether absenteeism was measured based on duration or frequency. To ensure that the assumption of independent samples was not violated (Hunter & Schmidt, 2004), no more than one effect size per relationship from a study was included in each meta-analysis. If there were multiple effect sizes for a given relationship from a single study then we used an average of these unique effect sizes in the overall analysis.

To help ensure the accuracy of the data coding, an instruction sheet was created with rules as to how various aspects of each study should be coded. To evaluate the efficacy of the instructions in facilitating accurate coding of the data, a second person coded a subset (33%) of the total studies. The agreement between the two coders was 98.9% with any disagreements resolved through discussion between the two coders. Based on this, small revisions were made to the coding instructions and the first author coded the remaining studies with any subsequent coding uncertainties resolved through discussion with the second author.

Again, to facilitate the use of a parsimonious model of individual differences, we used the FFM to categorize personality traits. For those studies that used traits not directly from the FFM model, we coded the trait into one of the FFM categories (e.g., 16PF Factor G as conscientiousness, CPI well-being [reversed coded] as neuroticism, trait positive affect as extraversion, etc.) or into a sixth "other" category. To facilitate the coding process, we referred to the coding schemes used by Salgado (2003) and Zimmerman (2008) throughout the process. Prior theoretical and empirical evidence indicates that neuroticism and extraversion are strongly related with negative and positive affect, respectively (Clark & Watson, 1999). In accord with the theoretical and empirical evidence, as well as the procedures of previous meta-analyses using the FFM (Thoresen et al., 2003; Zimmerman, 2008), trait affect is combined with the corresponding personality factors for purposes of this study.

2.3. Meta-analytic procedures

We conducted the meta-analyses using the formulas from Hunter and Schmidt (2004) with the aid of the meta-analytic software developed by Schmidt and Le (2004). As the aim of this paper is to investigate the relationship between constructs at the theoretical true score level, we corrected all meta-analytic estimates for attenuation due to artifacts in both the predictor and the criterion. Because reliability data were not available in each study, we corrected for measurement error using artifact distributions (Hunter & Schmidt, 2004). Table 1 shows the artifact distributions used in this study. The artifact distributions for personality are very similar to distributions published in prior research (e.g., Salgado, 2002; Zimmerman, 2008).

Table 1
Reliability artifact distributions used in meta-analyses.

Scale	Mean	Standard deviation
Emotional Stability	.83	.05
Extraversion	.81	.08
Openness to Experience	.76	.08
Agreeableness	.79	.07
Conscientiousness	.83	.08
Emotional Exhaustion	.88	.03
Depersonalization	.74	.09
Personal Accomplishment	.76	.06
Self-Reported Performance	.81	.05

Prior research has estimated the average inter-rater reliability of supervisor ratings of performance to be .52 and that the inter-rater reliability is the appropriate reliability estimate for which to correct when supervisor ratings of job performance are the construct of interest (Viswesvaran, Ones, & Schmidt, 1996). Therefore, .52 was used as the estimate of reliability for all supervisor ratings of job performance. The estimates of reliability (i.e., coefficients alpha) reported by the primary studies were used when correcting self-report measures of job performance for unreliability.

For the relationships involving turnover, to ensure that estimates from different primary studies do not vary solely because of differential turnover rates, corrections were made for these differences. This correction is made for unequal sample sizes in who has left and who has stayed at an organization (i.e., when there is not a 50–50 split between leavers and stayers). A disproportion in the number of stayers and leavers will cause the correlational relationship to be underestimated and may give a false indication of the existence of a moderator to the relationship of interest (Hunter & Schmidt, 2004). Because absenteeism occurrences were obtained from organizational records, no correction was made for unreliability in absenteeism.

The 80% credibility intervals reported for each meta-analysis indicate the generalizability of the relationship across situations (Hunter & Schmidt, 2004). If the credibility interval does not include zero, the relationship is considered to exist across situations, although the magnitude of the relationship may still vary if there is considerable variance unaccounted for by artifacts. Finally, 95% confidence intervals around the true score correlation are reported as an indicator of the variability of the estimate of the mean true score correlation and whether the mean true score correlation is nonzero.

2.4. Path analysis

Although correlational data from a primary study is typically used to conduct a path analysis, data from meta-analyses can also be used (Hunter & Schmidt, 2004; Viswesvaran & Ones, 1995). The models were tested using LISREL 8.71 (Joreskog & Sorbom, 2004). Several fit indices are provided to evaluate the fit of the model to the data, including the chi-squared index (χ^2), root-mean-square-residual (*RMSR*), root-mean-square error of approximation (*RMSEA*), goodness-of-fit index (*GFI*), normed fit index (*NFI*), and comparative fit index (*CFI*). In order to assess the overall effect of the FFM personality traits on job burnout, we used the meta-analytic intercorrelations found by Mount, Barrick, Scullen, and Rounds (2005) to regress each job burnout construct on all five of the FFM traits. These analyses provided an estimate of the overall effect (*R*) of the FFM personality traits on each burnout construct. As suggested by Viswesvaran and Ones (1995), the harmonic mean of the sample sizes was used in each analysis.

3. Results

Table 2 and 3 contain the results of the meta-analyses. The tables include the relationship examined; the number of effect sizes (k) and total sample size (N) included in the meta-analysis; followed by the sample-size-weighted mean observed correlation (r). The next column contains the estimated mean true score correlation (ρ). Following these estimates, each table presents the standard deviation ($SD\rho$) of the estimated mean true score correlation; the 95% confidence interval around the estimated mean true score correlation; and the 80% credibility interval around the estimated mean true score correlation. Finally, the percent of variance accounted for by statistical artifacts is contained in the last column.

Table 2 presents the overall analyses between each of the personality traits and three dimensions of job burnout. Neuroticism has moderate to strong relationships with the three burnout dimensions with true score correlations of .52, .42, and −.38 with emotional exhaustion, depersonalization, and personal accomplishment, respectively. The results support hypotheses 1a–c. Of all of the personality traits examined, neuroticism has the strongest relationship with emotional exhaustion and depersonalization. In addition, none of the 95% confidence intervals or 80% credibility intervals include zero, with the latter indicating that the overall direction of the relationship between neuroticism and job burnout generalizes across contexts.

Extraversion has moderate relationships with emotional exhaustion, depersonalization, and personal accomplishment with true score correlations of −.29, −.23, and .41, respectively. These results support hypotheses 2a–c. Extraversion has the strongest effect on personal accomplishment compared to the other personality traits. As with neuroticism, all of the 95% confidence intervals and 80% credibility intervals exclude zero.

Agreeableness has modest to moderate effects on job burnout with true score correlations of −.18, −.31, and .31 with emotional exhaustion, depersonalization, and personal accomplishment, respectively. Out of the FFM traits, agreeableness has the second strongest relationships with depersonalization and personal accomplishment. These results support hypotheses 3a–c. None of the confidence or credibility intervals include zero.

Conscientiousness also has modest to moderate effects on emotional exhaustion, depersonalization, and personal accomplishment, with true score correlations of −.19, −.24, .28, respectively. Therefore, hypotheses 4a–c are supported. The 95% confidence intervals and 80% credibility intervals do not include zero.

Openness to experience has very weak effects on emotional exhaustion (−.09) and depersonalization (−.10), but somewhat stronger effects on personal accomplishment (.21). The 95% confidence intervals for all three burnout constructs do not include zero, although the 80% credibility intervals for emotional exhaustion and depersonalization do include zero (the credibility interval for personal accomplishment does not). Overall, hypotheses 5a and b receive partial support and hypothesis 5c is fully supported.

Table 2
Results of personality-burnout meta-analyses.

Meta-analysis	*k*	*N*	*r*	ρ	*SD* ρ	95% CoI lower	95% CoI upper	80% CrI lower	80% CrI upper	% S^2 due to artifacts
Neuroticism										
Emotional exhaustion	66	19,454	.44	.52	.133	.48	.56	.35	.69	16.03
Variables collected										
Same time	61	18,352	.44	.52	.137	.48	.56	.34	.69	15.00
Different times	6	1134	.39	.46	0	.42	.50	.46	.46	100.0
Depersonalization	59	16,599	.33	.42	.116	.38	.46	.27	.57	28.79
Variables collected										
Same time	56	16,229	.33	.42	.119	.38	.46	.27	.57	27.44
Different times	4	402	.28	.37	0	.34	.40	.37	.37	100.0
Personal accomplishment	60	15,653	−.30	−.38	.159	−.43	−.33	−.59	−.18	17.28
Variables collected										
Same time	57	15,283	−.30	−.38	.161	−.43	−.33	−.59	−.18	16.58
Different times	4	402	−.30	−.37	.100	−.52	−.22	−.50	−.25	57.33
Extraversion										
Emotional exhaustion	52	16,213	−.24	−.29	.173	−.34	−.24	−.51	−.07	12.08
Variables collected										
Same time	47	15,111	−.25	−.29	.179	−.34	−.24	−.52	−.06	11.15
Different times	6	1134	−.19	−.22	.034	−.29	−.15	−.27	−.18	85.87
Depersonalization	46	13,147	−.18	−.23	.141	−.28	−.18	−.41	−.05	22.34
Variables collected										
Same time	43	12,777	−.18	−.23	.145	−.28	−.18	−.42	−.05	20.93
Different times	4	402	−.15	−.20	0	−.23	−.17	−.20	−.20	100.0
Personal accomplishment	47	12,109	.32	.41	.168	.36	.46	.19	.62	16.50
Variables collected										
Same time	44	11,739	.32	.41	.170	.35	.47	.19	.62	15.89
Different times	4	402	.37	.47	.097	.32	.62	.34	.59	57.68
Agreeableness										
Emotional exhaustion	34	8245	−.15	−.18	.100	−.22	−.14	−.30	−.05	36.59
Variables collected										
Same time	32	7935	−.14	−.17	.100	−.21	−.13	−.30	−.05	36.09
Different times	3	342	−.31	−.37	.056	−.50	−.24	−.44	−.30	76.97
Depersonalization	35	7663	−.24	−.31	.117	−.36	−.26	−.46	−.16	35.24
Variables collected										
Same time	33	7353	−.23	−.31	.120	−.37	−.27	−.46	−.15	33.86
Different times	3	342	−.22	−.29	0	−.41	−.17	−.29	−.29	100.0
Personal accomplishment	35	6025	.24	.31	.166	.25	.37	.09	.52	24.12
Variables collected										
Same time	33	5715	.24	.32	.168	.25	.39	.10	.53	23.55
Different times	3	342	.11	.14	0	.08	.20	.14	.14	100.0
Conscientiousness										
Emotional exhaustion	36	8924	−.16	−.19	.133	−.24	−.14	−.36	−.02	23.20
Variables collected										
Same time	33	8554	−.16	−.19	.135	−.24	−.14	−.37	−.02	21.84
Different times	4	402	−.09	−.11	0	−.21	−.01	−.11	−.11	100.0
Depersonalization	34	7485	−.19	−.24	.165	−.30	−.18	−.45	−.03	21.08
Variables collected										
Same time	31	7115	−.19	−.25	.166	−.32	−.18	−.46	−.03	20.24
Different times	4	402	−.31	−.40	.045	−.53	−.27	−.46	−.35	87.59
Personal accomplishment	32	5690	.22	.28	.191	.21	.35	.03	.52	18.50
Variables collected										
Same time	29	5320	.23	.29	.186	.21	.37	.05	.52	18.71
Different times	4	402	.13	.17	.226	−.09	.43	−.12	.46	23.02
Openness to experience										
Emotional exhaustion	32	6681	−.07	−.09	.164	−.16	−.02	−.30	.12	20.90
Variables collected										
Same time	29	6311	−.08	−.10	.161	−.17	−.03	−.31	.11	20.81
Different times	4	402	.05	.06	.117	−.10	.22	−.09	.21	51.91
Depersonalization	31	5929	−.07	−.10	.082	−.15	−.05	−.20	.01	57.82

(*continued on next page*)

Table 2 (*continued*)

Meta-analysis	*k*	*N*	*r*	*ρ*	*SD ρ*	95% CoI lower	95% CoI upper	80% CrI lower	80% CrI upper	% S^2 due to artifacts
Variables collected										
Same time	28	5544	−.08	−.10	.085	−.14	−.06	−.21	.00	55.27
Different times	4	402	−.01	−.01	0	−.08	.06	−.01	−.01	100.0
Personal accomplishment	32	6107	.16	.21	.083	.17	.25	.10	.31	55.86
Variables collected										
Same time	29	5737	.16	.21	.089	.16	.26	.10	.32	51.74
Different times	4	402	.14	.19	0	.09	.29	.19	.19	100.0

Notes. k, number of effect sizes included in the meta-analysis; *N*, total sample size of the meta-analysis; *r*, sample size-weighted mean observed correlation; *ρ*, estimated true score corrected for unreliability in the predictor and criterion; *SDρ*, standard deviation of the true score correlation (*ρ*); 95% CoI-Lower/Upper, Lower/upper bound of the 95% confidence interval around the true score correlation (*ρ*); 80% CrI-Lower/Upper, Lower/upper bound of the 80% credibility interval around the true score correlation (*ρ*); % S^2 Due to Artifacts, percent of variance accounted for by artifacts.

Table 3
Results of burnout-outcome meta-analyses.

	k	*N*	*r*	*ρ*	*SD ρ*	95% CoI Lower	95% CoI Upper	80% CrI Lower	80% CrI Upper	% S^2 Due to Artifacts
Emotional exhaustion										
Absenteeism	17	7142	.19	.21	.047	.18	.24	.15	.27	56.72
Frequency	14	6952	.17	.20	.047	.16	.24	.14	.26	52.17
Duration	5	4598	.19	.21	0	.18	.24	.21	.21	100.0
Turnover	2	303	.15	.17	.020	.04	.30	.14	.19	95.37
Job performance	24	5558	−.15	−.20	.119	−.26	−.14	−.35	−.05	36.90
Other ratings	13	1470	−.21	−.33	.163	−.45	−.21	−.54	−.13	42.65
Self-reports	14	4602	−.13	−.16	.099	−.22	−.10	−.28	−.03	32.15
Task performance	11	2151	−.14	−.19	.098	−.27	−.11	−.32	−.07	50.11
Contextual performance	8	2192	−.15	−.20	.084	−.28	−.12	−.31	−.10	49.90
Depersonalization										
Absenteeism	15	7021	.13	.15	0	.12	.18	.15	.15	100.0
Frequency	12	6831	.12	.14	0	.11	.17	.14	.14	100.0
Duration	4	4364	.16	.18	0	.16	.20	.18	.18	100.0
Turnover	4	683	.25	.29	.030	.20	.38	.25	.32	88.07
Job performance	21	4883	−.15	−.20	.134	−.27	−.13	−.37	−.03	31.36
Other ratings	10	977	−.24	−.38	.203	−.54	−.22	−.64	−.12	35.18
Self-reports	11	3954	−.13	−.16	.112	−.24	−.08	−.31	−.02	25.25
Task performance	8	1488	−.09	−.12	.107	−.22	−.02	−.26	.01	46.88
Contextual performance	6	1759	−.23	−.32	0	−.38	−.26	−.32	−.32	100.0
Personal accomplishment										
Absenteeism	11	5580	−.11	−.12	.050	−.16	−.08	−.18	−.06	49.49
Frequency	8	5390	−.10	−.11	.043	−.15	−.07	−.16	−.05	49.97
Duration	3	287	−.05	−.05	0	−.10	−.01	−.05	−.05	100.0
Turnover	3	449	−.22	−.24	.283	−.57	.09	−.61	.12	8.77
Job performance	20	4834	.26	.35	.184	.26	.44	.12	.59	19.95
Other ratings	12	1349	.27	.42	.228	.27	.57	.13	.72	26.57
Self-reports	9	3566	.25	.32	.164	.20	.44	.11	.53	12.04
Task performance	7	1457	.28	.38	.093	.28	.48	.26	.50	52.88
Contextual performance	6	1754	.33	.45	.170	.30	.60	.24	.67	21.46

Notes. k, number of effect sizes included in the meta-analysis; *N*, total sample size of the meta-analysis; *r*, sample size-weighted mean observed correlation; *ρ*, estimated true score corrected for unreliability in the predictor and criterion; *SDρ*, standard deviation of the true score correlation (*ρ*); 95% CoI-Lower/Upper, Lower/upper bound of the 95% confidence interval around the true score correlation (*ρ*); 80% CrI-Lower/Upper, Lower/upper bound of the 80% credibility interval around the true score correlation (*ρ*); % S^2 Due to Artifacts, percent of variance accounted for by artifacts.

Overall, the regression analyses indicate that all five of the FFM personality traits together exhibit strong multiple true score correlations (*R*) with job burnout. The FFM traits have R_s of .57 with emotional exhaustion, .46 with depersonalization, and .52 with personal accomplishment. We performed moderator analyses for each relationship examined as to whether the personality and burnout measures were collected at the same time or different times, with the results indicating that the relationships tended to be slightly stronger when the measures were collected at the same time.

Table 3 present the results of the meta-analyses between job burnout and the three outcome measures: absenteeism, turnover, and job performance. Emotional exhaustion has moderate true score correlations of .21, .17, and −.20 with the three criteria, respectively. The magnitude of the relationship with absenteeism is the strongest of the three burnout mea-

sures. None of the confidence or credibility intervals for these three relationships include zero. The results support Hypotheses 6a, b, and c.

Compared to emotional exhaustion, depersonalization has a weaker relationship with absenteeism (.15), but a stronger relationship with turnover (.29) and the same true score correlation (−.20) with job performance. The relationship with turnover is the strongest among the three measures of job burnout. Again, none of the confidence or credibility intervals include zero. Therefore, Hypotheses 7a, b, and c are supported.

Finally, of the three burnout measures, personal accomplishment has the strongest relationship with job performance (.35), but the weakest with absenteeism (−.12). The relationship between personal accomplishment and turnover is −.24. Only the confidence and credibility intervals for the relationship with turnover includes zero, despite the overall effect size of −.24. Thus, Hypotheses 8a and c are supported, while 8b is not supported.

The regressions showed moderate effects of the three burnout measures on the three criteria. The multiple true score correlation is .23 with absenteeism, .33 with turnover and .36 with job performance. For the moderators examined for the outcome measures, the relationships with job performance ratings made by others are consistently stronger than with self-ratings of performance. Specifically, emotional exhaustion, depersonalization, and personal accomplishment have true score correlations of −.33, −.38, and .42 (respectively) with other ratings of job performance, but true score correlations of −.16, −.16, and .32 with self-ratings of performance. In addition, the relationships of emotional exhaustion, depersonalization, and personal accomplishment with contextual performance are stronger (−.20, −.32, & .45, respectively), than those with task performance (−.19, −.12, & .38). The only interval that included zero for the job performance moderator analyses is the credibility interval for the relationship between depersonalization and task performance. For absenteeism, there is no consistent pattern in terms of whether the relationships with frequency or duration were stronger, with emotional exhaustion showing similar relationships with frequency and duration (.20 vs. .21, respectively); depersonalization showing a slightly stronger relationship with absence duration (.14 vs. .18); and personal accomplishment showing a slightly stronger relationship with absence frequency (−.11 vs. −.05). None of the intervals for the absenteeism moderator analyses include zero.

For the path analyses, the meta-analytic correlation matrix used is shown in Table 4. As discussed previously, three different theoretical models of the job burnout process were tested for each outcome measure. The fit indices of the three models for each outcome measure are shown in Table 5. The path analyses for each of the best fitting models are presented in Fig. 1a–c. All of the path estimates are significant at $p < .05$.

The best fitting model (χ^2: 23.69, $df = 2$; *SRMR*: .017; *RMSEA*: .03; *GFI*: 1.00; *NFI*: 1.00; *CFI*: 1.00) for absenteeism is one with personal accomplishment affecting depersonalization ($\beta = -.36$) affecting emotional exhaustion ($\beta = .60$), with a direct effect from personal accomplishment to emotional exhaustion ($\beta = -.11$), supporting Golembiewski et al.'s model (1986). The direct effect of emotional exhaustion on absenteeism is .21. The harmonic mean sample size is 7615.

For turnover, the best fitting model is emotional exhaustion affecting personal accomplishment ($\beta = -.33$) affecting depersonalization ($\beta = -.17$), with a direct effect between emotional exhaustion and depersonalization ($\beta = .58$). In turn, depersonalization has a direct effect on turnover of .29. These results support the model developed in this paper. The fit statistics for this model are: χ^2: 20.39, $df = 2$; *SRMR*: .043; *RMSEA*: .10; *GFI*: .99; *NFI*: .97; *CFI*: .97, with a harmonic mean sample size of 820.

In contrast to absenteeism and turnover, the best fitting model for job performance is emotional exhaustion affecting depersonalization ($\beta = .64$) affecting personal accomplishment ($\beta = -.25$), with a direct effect of emotional exhaustion on personal accomplishment ($\beta = -.17$), supporting Maslach et al.'s model (Leiter & Maslach, 1988; Maslach et al., 2001). Personal accomplishment is the most proximal aspect of burnout to job performance with a direct effect of .35. The fit statistics for this model are: χ^2: 67.64, $df = 2$; *SRMR*: .036; *RMSEA*: .07; *GFI*: .99; *NFI*: .99; *CFI*: .99. The harmonic mean sample size is 6537. Thus, each of the three process models described earlier exhibited the best fit when the final burnout dimension in the model corresponded with the outcome of interest, supporting our usage of thematic correspondence.

Table 4
Full meta-analytic correlation matrix used in path analyses.

Variable	1	2	3	4	5	6	7	8	9	10
1. Conscientiousness										
2. Extraversion	.17									
3. Neuroticism	−.52	−.24								
4. Agreeableness	.39	.26	−.42							
5. Openness to Experience	.09	.45	−.19	.17						
6. Emotional Exhaustion	−.19	−.29	.52	−.18	−.09					
7. Depersonalization	−.24	−.23	.42	−.31	−.10	.64				
8. Personal Accomplishment	.28	.41	−.38	.31	.21	−.33	−.36			
9. Absenteeism	−.06	.08	−.04	.04	.00	.21	.15	−.12		
10. Turnover	−.20	−.04	.18	−.25	.10	.17	.29	−.24	.21	
11. Job Performance	.23	.12	−.12	.10	.05	−.20	−.20	.35	−.44	−.17

Notes. True score correlations between personality traits are from Mount et al., 2005; personality–job performance correlations are from Barrick et al., 2001; personality–turnover correlations are from Zimmerman, 2008; personality–absenteeism correlations are from Salgado, 2002; absenteeism-turnover and job performance-turnover correlations are from Griffeth, Hom, & Gaertner, 2000; absenteeism-job performance correlation is an average from Viswesvaran, 2002; burnout intercorrelations are from Lee & Ashforth, 1996.

Table 5
Fit indices for confirmatory factor analysis.

Model	χ^2	*df*	*SRMR*	*RMSEA*	*GFI*	*NFI*	*CFI*
Absenteeism							
EE → DEP → PA w/EE → PA	252.42	2	.064	.13	.98	.95	.96
PA → DEP → EE w/PA → EE	23.69	2	.017	.03	1.00	1.00	1.00
EE → PA → DEP w/EE → DEP	191.42	2	.042	.11	.99	.97	.97
Turnover							
EE → DEP → PA w/EE → PA	42.84	2	.070	.16	.97	.93	.94
PA → DEP → EE w/PA → EE	65.78	2	.082	.20	.96	.90	.90
EE → PA → DEP w/EE → DEP	20.39	2	.043	.10	.99	.97	.97
Job performance							
EE → DEP → PA w/EE → PA	67.64	2	.036	.07	.99	.99	.99
PA → DEP → EE w/PA → EE	623.51	2	.093	.22	.95	.88	.88
EE → PA → DEP w/EE → DEP	623.51	2	.091	.22	.95	.88	.88

Notes. EE, emotional exhaustion; DEP, depersonalization; PA, personal accomplishment.

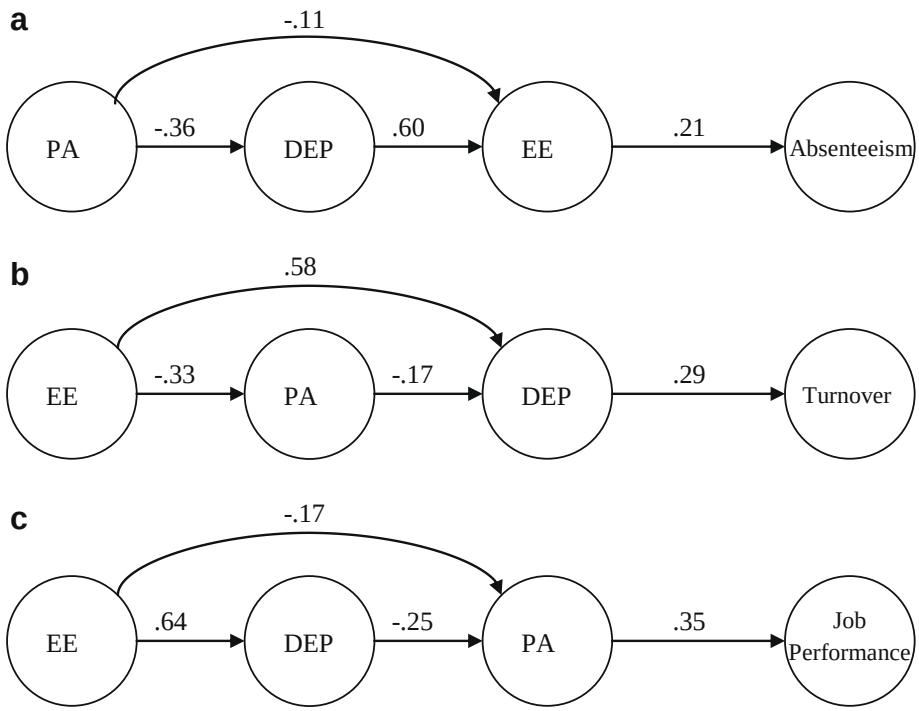

Fig. 1. Path analyses of the effects of job burnout on the outcome measures. *Notes.* EE, emotional exhaustion; DEP, depersonalization; PA, personal accomplishment. All path estimates are significant at $p < .05$.

Fig. 2 presents the path analyses for the relationships between all three burnout measures and all three outcome measures. As supported by the previous analyses, each burnout measure only directly affects the most proximal outcome measure. As turnover indicates an employee left the organization, there are no effects from turnover to any other variables in the model. Two models were tested, one with absenteeism affecting performance and a second with reciprocal effects between absenteeism and job performance. The harmonic mean sample size is 1657. The fit indices for the former are: χ^2: 45.00, $df = 6$; *SRMR*: .032; *RMSEA*: .06; *GFI*: .99; *NFI*: .98; *CFI*: .98; and for the latter are: χ^2: 42.68, $df = 5$; *SRMR*: .029; *RMSEA*: .07; *GFI*: .99; *NFI*: .97; *CFI*: .97. Although the *SRMR* is marginally better for the model with reciprocal effects, the rest of the indices are the same or worse. In addition, the change in the chi-squared statistic (2.32) is not significant and the path from job performance to absenteeism is not significant. In sum, the fit indices support the more parsimonious model with only the one-way effect from absenteeism to job performance. The path estimates for the model are shown in Fig. 2 with all of the effects significant at $p < .05$.

Fig. 3 presents a path model of the mediating effects of the three burnout dimensions on the relationships between the FFM personality traits and three outcome measures. The relationships among the burnout measures reflect those of their

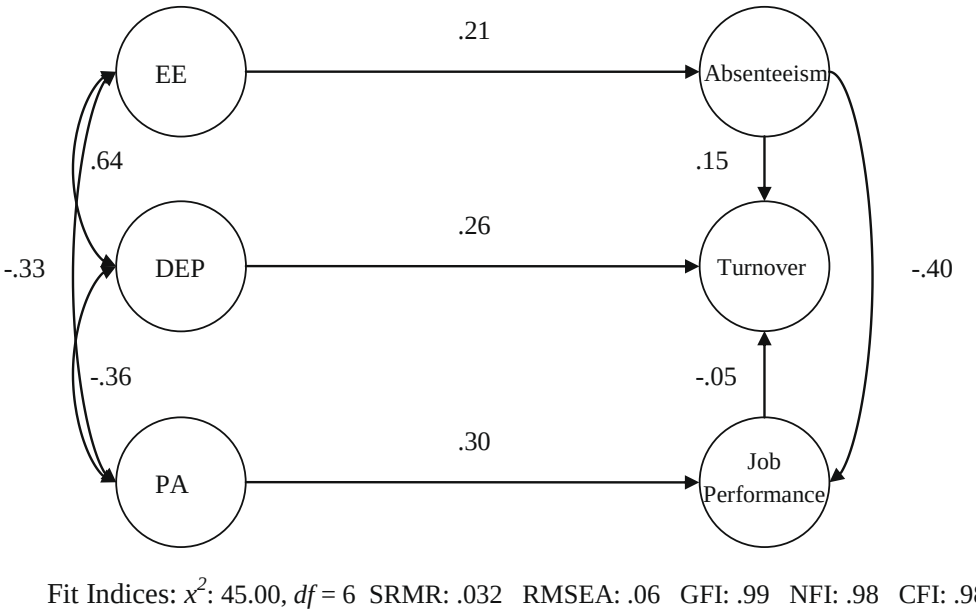

Fig. 2. Combined path analysis of all three burnout measures on the outcome measures. *Notes.* EE, emotional exhaustion; DEP, depersonalization; PA, personal accomplishment. All path estimates are significant at $p < .05$.

corresponding proximal outcome. For the personality traits, any direct effects on the outcome measures reflect prior research. Because the relationship between personality and absenteeism is weak (Salgado, 2002), all effects were expected to be mediated through burnout. For job performance, only conscientiousness and neuroticism were expected to have direct effects as prior research has shown those are the two traits that predict performance across jobs (Barrick et al., 2001). In regards to turnover, direct effects from all of the traits except extraversion were expected based on prior research (Zimmerman, 2008). Because of the theoretical and empirical evidence presented in this study that neuroticism is strongly related to job burnout, we tested a competing model with all of the effects of neuroticism on the outcome measures mediated by the three job burnout dimensions. The fit indices for the model with direct effects from neuroticism are: χ^2: 337.45, df = 19; *SRMR*: .033; *RMSEA*: .08; *GFI*: .98; *NFI*: .97; *CFI*: .97. The fit statistics for the reduced model are: χ^2: 344.46, df = 17; *SRMR*: .034; *RMSEA*: .08; *GFI*: .98; *NFI*: .97; *CFI*: .97. The harmonic mean sample size is 2834. As the fit indices were generally the same with the difference in the chi-square not significant, the more parsimonious model was retained. Additionally, the paths from neuroticism to turnover and job performance are not significant. Therefore, the reduced model was used to run our path analyses. The path estimates are shown in Fig. 3 with all effects greater than or equal to ±.04 significant at $p < .05$.

4. Discussion

Job burnout is a multidimensional psychological syndrome describing individuals' responses to emotional and interpersonal stressors at work (Cordes & Dougherty, 1993; Maslach & Jackson, 1981). Burnout consists of emotional exhaustion, depersonalization, and a sense of reduced personal accomplishment. Antecedents to job burnout are traditionally grouped into three categories: organizational, occupational, and individual. While scholars have meticulously outlined a number of possible organizational and occupational predictors of burnout, the study of individual-level predictors has been far less systematic (Zellars et al., 2000). However, as part of the meta-analytic procedures used in this study, we have gathered these scattered studies to arrive at poignant and compelling findings underscoring the importance of individual-level predictors of job burnout. In this study, we focus on one set of individual-level predictors of job burnout (FFM personality traits) and show that they are robust predictors of burnout. Our findings indicate that individuals who are higher in neuroticism and lower in extraversion, conscientiousness, and agreeableness are more prone to experience job burnout. Taken as a whole, FFM traits explain 33% of the variance in emotional exhaustion, 21% of the variance in depersonalization, and 27% of the variance in personal accomplishment.

Furthermore, we explored how job burnout affects important work outcomes, including absenteeism, turnover, and job performance. Consistent with our hypotheses that those who experience greater burnout are more likely to engage in negative workplace behaviors, our findings indicate that job burnout has moderate effects on all three outcomes. The results of this study are consistent with CAPS (Mischel & Shoda, 1995, 1998), as individuals' personalities are associated with whether employees experience burnout at work, which, in turn, affect their workplace behaviors. In sum, our results highlight the

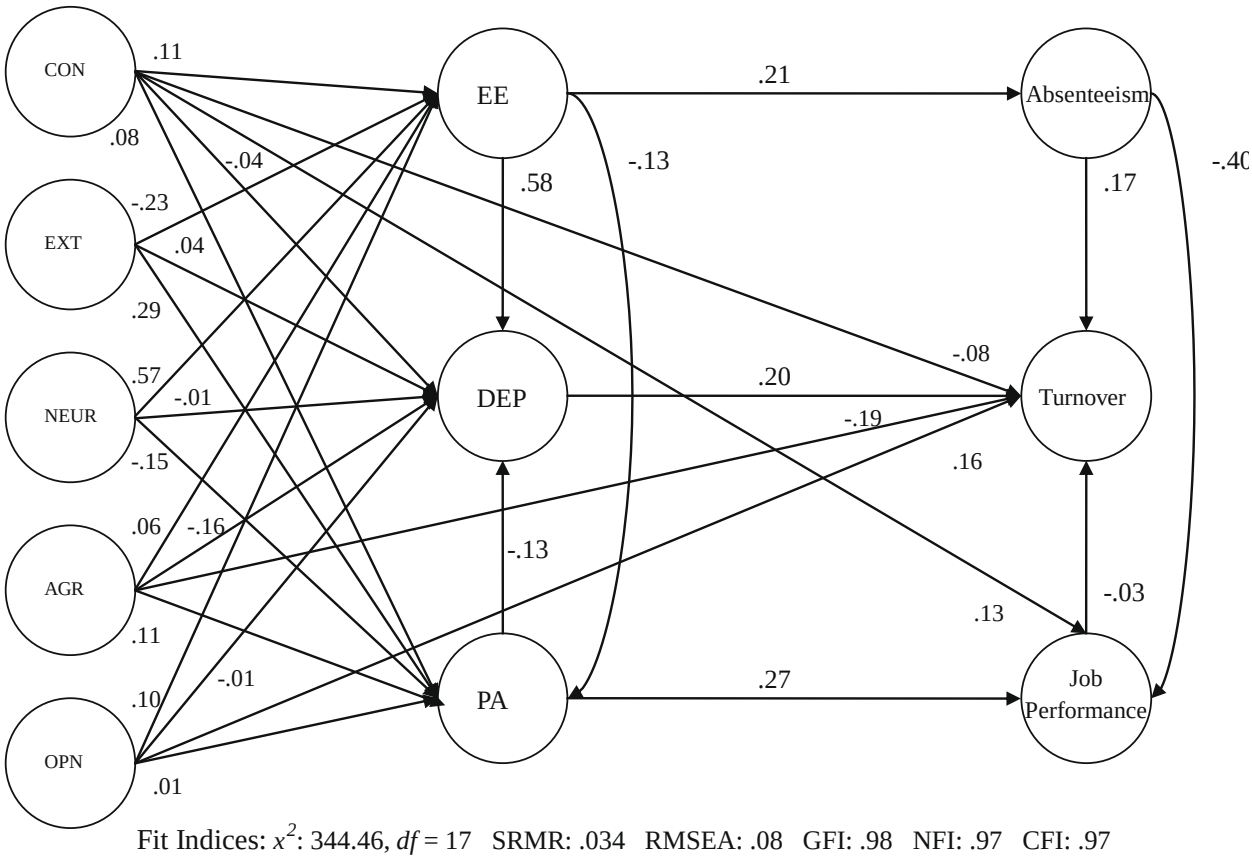

Fig. 3. Path analyses of the mediating effects of job burnout on the personality–outcome relationships. *Notes.* EE, emotional exhaustion; DEP, depersonalization; PA, personal accomplishment. All path estimates $\geqslant \pm .04$ are significant at $p < .05$.

important effects that employees' personalities have on their level of job burnout, and how job burnout mediates the effects of personality on employee withdrawal and performance. Additionally, our study is responsive to continued calls to show the efficacy of personality in predicting important work-related constructs (Morgeson et al., 2007) and addresses the lack of research on *how* personality affects work outcomes (Barrick et al., 2001).

Findings in this study highlight the importance of including individual-level predictors in research that typically focuses on occupational- or organizational-level predictors of job burnout. Researchers primarily examining the effects of these higher-level predictors must recognize that individuals' personalities play an important role in burnout. In response to recent calls for more multi-level investigations (House, Rousseau, & Thomas-Hunt, 1995; Kozlowski & Klein, 2000), burnout researchers may begin looking at the multiple levels of influence in concert with one another, paying specific attention to the effects of personality on burnout and its consequences.

Our findings regarding the impact of job burnout on the three work-related outcomes are important for two reasons. First, as Lee and Ashforth's (1996) meta-analysis on job burnout did not include the important work outcomes of absenteeism, turnover, and job performance, our study fills an important gap in the literature by indicating that the effects of burnout on the three aforementioned outcomes generalizes across contexts. Further, including the work outcomes allowed us to model the mediational process of how personality affects the three outcomes through the burnout sequence. Although job burnout fully mediated the effects of personality on absenteeism, it only partially mediated the personality's effects on performance and turnover.

Second, we show that although the three burnout dimensions are interrelated, how this interplay occurs depends on the outcome of interest. For absenteeism, personal accomplishment was the first antecedent, followed by depersonalization, followed by emotional exhaustion, with the latter the most proximal antecedent to absenteeism. However, for turnover, the roles of personal accomplishment and depersonalization were reversed. Finally, for job performance, emotional exhaustion was the first antecedent in the burnout process, which affected depersonalization, with both affecting personal accomplishment, which was the burnout dimension most proximal to job performance. These results support the idea of thematic correspondence (Ilies et al., 2007) with the most theoretically-relevant burnout dimension occupying the most proximal antecedent in the burnout sequence, as well as supporting previously developed process models (Golembiewski et al., 1986; Leiter & Maslach, 1988; Maslach et al., 2001).

While the overall direction of the relationships between the personality traits and burnout dimensions held across settings for most of the traits, there were moderators to these relationships. First, our findings indicate that the negative relationships between openness to experience and two of the burnout dimensions (emotional exhaustion and depersonalization) may not generalize across contexts. Temporal separation of personality and burnout measurements, at the same or different times, also acted as a moderator. While very few studies measured the variables at different times (Day, Therrien, & Carroll, 2005; Hochwarter, Ferris, Zinko, Arnell, & James, 2007; Mills & Huebner, 1998; Miner, 2007; Piedmont, 1993), our results indicate that when personality and burnout were measured at different times, the relationship between the two constructs tended to be somewhat weaker than if they were measured at the same time. This finding supports previous work that contends that variables measured at the same time may have inflated relationships due to common method variance (Podsakoff et al., 2003; Spector, 2006). However, it is important to note that the strength of the relationships between variables measured at different times were only slightly weaker and these results still affirm the overall conclusions of this study.

Interestingly, the relationship between job burnout and job performance was consistently stronger when the performance ratings were non-self-reports. This finding is contrary to the commonly held belief that relationships with self-reported performance should be higher due to common method variance. This may indicate that those who suffer from burnout may not be as aware as others as to the effects of their burnout on their work behaviors (Maslach & Goldberg, 1998). Future research should explore these possible differences in self vs. other perceptions of the consequences of job burnout and how that affects whether burned-out individuals try to remedy their current condition. We also note that investigating whether the same person completed both the personality and burnout measures vs. whether different people completed the measures (e.g., the participant completed the job burnout measures, while a significant other completed the personality measures in reference to the participant) as a potential moderator also would have been a useful evaluation of the effects of common method variance, no studies in our sample utilized such a methodology. This gap in the literature warrants future research.

The type of job performance measure also affected the strength of the relationships between job burnout and performance. Specifically, it appears as if burnout has an even larger effect on contextual performance than task performance. As contextual performance is generally considered discretionary (Organ & Ryan, 1995), this finding supports the conservation of resources theory in that individuals who suffer from burnout are more likely to abandon those behaviors that do not generate adequate returns for the investment of resources required (Hobfoll, 1988). That is, because contextual performance behaviors are not at the "core" of one's job, such behaviors are the most readily shed. Finally, in an exploratory moderator analysis, we found that whether absenteeism was measured based on frequency or duration did not consistently moderate the burnout–outcome relationships.

4.1. Practical implications

Practitioners may use the findings of this study to help identify individuals who are more likely to burnout, which may then lead to greater absenteeism, increased turnover, and lower performance, and respond accordingly by organizing burnout interventions. Research indicates that human resource functions, from employee recruitment and hiring to performance appraisals and promotions, can address issues of burnout (Halbesleben, Osburn, & Mumford, 2006). If organizations use a FFM-based personality assessment as part of their selection systems, then they would be well informed of employees that are likely to burnout. Yet, burnout interventions are still in their infancy. Current burnout reduction programs have been significantly limited, as they have usually focused on universal solutions rather than on addressing the uniqueness of burnout antecedents within any one organization or type of individual (Halbesleben et al., 2006). Addressing this issue by utilizing the findings of this study that job burnout antecedents are, in part, dispositional, would help bring researchers and practitioners together to work on designing more effective burnout interventions. Collaborative work to develop and test potential programs that are tailored to the needs of specific organizations or individuals, such as helping organization members (especially individuals with personalities that make them likely to experience burnout) develop skills to cope with job-specific, burnout-inducing stressors, could help organizations and individuals avoid the consequences of job burnout summarized in this study (Halbesleben et al., 2006).

Furthermore, organizations that use personality testing during their selection processes may benefit from screening out individuals who have traits that would predispose them to experience job burnout, particularly for jobs that frequently tend to induce burnout in the incumbents. Organizations that make selection decisions based on these traits may benefit in multiple ways, as some of the traits that are related to job burnout (conscientiousness, neuroticism, and agreeableness) have also been found to predict other important work-related outcomes such as job performance (conscientiousness and neuroticism for performance in most jobs and agreeableness for performance in customer service and team-based jobs), job satisfaction, counter-productive work behaviors, and turnover (Barrick & Mount, 1991; Barrick et al., 2001; Judge, Heller, & Mount, 2002; Salgado, 1997; Salgado, 2002, 2003; Zimmerman, 2008).

4.2. Limitations and future research

Despite the strong and consistent findings of this study, we recognize that it also possesses some limitations which reveal new areas for research on how individuals' personalities affect their level of job burnout. First, we recognize that the FFM of

personality is not the sole individual-level predictor of burnout. Future researchers should investigate other individual differences (e.g., general mental ability, values, etc.) that might predispose employees to job burnout. Similarly, researchers have recently discussed the importance of broadening investigations of personality to narrow traits as well as broad ones (Hough & Oswald, 2008).

Second, while this study presents estimates of the main effects of the FFM personality traits on the three dimensions of job burnout, future studies should focus on possible mediators to these relationships. For example, do some aspects of personality affect burnout through individuals' interpretations of their work environments while other aspects affect individuals' behavior in their environments? Perhaps more neurotic individuals perceive a given work environment as more stressful compared to less neurotic individuals (Weiss & Cropanzano, 1996). Alternatively, because of their tendency to be pessimistic and exhibit negative attitudes, more neurotic individuals may have less social support from coworkers (Côté, 2005), which increases their workload and thus their burnout. Further, person-environment fit theory (Kristof-Brown, Zimmerman, & Johnson, 2005; Pervin, 1968) would suggest that the interaction between individuals' personalities and specific environmental factors that require certain personality traits might moderate the relationships with job burnout. For example, while extraversion is generally negatively related to burnout, an extravert working in a job requiring isolation may be more likely to suffer from job burnout. Or an agreeable person working in an organization with a competitive culture might be more likely to feel burned out than a disagreeable person would in such an environment. Future research must be undertaken to answer these types of questions.

5. Conclusion

Individuals' personalities are a strong predictor of the level of job burnout they experience. While past summaries of the job burnout literature have focused on organizational and occupational factors that contribute to employees' feelings of emotional exhaustion, depersonalization, and lack of personal accomplishment, the findings from this study drive home the fact that researchers also need to consider individual differences in their future studies. All five of the FFM traits combined to explain substantial variance in the burnout levels between individuals, with the direction of the majority of the personality trait-burnout relationships holding across study settings and samples. The findings of this study indicate that the source of job burnout may come as much from within individuals as from outside of them. In addition, job burnout shows moderate effects on the important work outcomes of absenteeism, turnover, and job performance with the burnout process varying depending on the outcome. Finally, job burnout fully mediated the personality–absenteeism relationship as well as partially mediated the effects of personality on turnover and job performance.

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