

Inequity at work and emotional exhaustion: The role of personality

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Abstract

Unbalanced social exchange processes at work have been linked to emotional exhaustion. In addition to organizational factors, individual differences are important determinants of reciprocity perceptions. This study explored whether broad and narrow personality traits were associated with perceived lack of reciprocity (organizational and interpersonal level), and whether personality moderated the relationship between reciprocity and emotional exhaustion, in a sample of 322 civil servants. Extraversion, agreeableness, emotional stability, internal locus of control, and Type-A behavior predicted reciprocity. The relationship between perceived lack of reciprocity with the organization and emotional exhaustion was stronger for individuals reporting lower negative affect or higher extraversion. These findings highlight the importance of personality for understanding perceived reciprocity at work and its impact on emotional exhaustion.

Perceived inequity has often been presented as a determinant of ill health, poor well-being, and reduced motivation (Masterson, Lewis, Goldman, & Taylor, 2000; Taris, Kalimo, & Schaufeli, 2002). Specifically, investigations of the role of social exchange relationships present a major trend in the study of burnout. It has been noted that cognitive and social processes may underline the experience of stress and burnout (for a theoretical review, see Halbesleben & Buckley, 2004). The role of perceived inequity for burnout has been acknowledged since the early 1990's and continues to be of major research interest (e.g., Buunk & Schaufeli, 1993; Disley, Hatton, & Dagnan, 2009). A number of social exchange theories, such as the Dual-Level Social Exchange model (DLSE, Schaufeli, van Dierendonck, & van Gorp, 1996), have been proposed in order to explain this link. However, research on the role of individual differences in perceived lack of reciprocity and on the relationship between perceived reciprocity and burnout is not systematic. The present study aims to contribute to this field of enquiry by investigating a wide range of personality traits. We start by examining current conceptual and empirical work before developing specific hypotheses on the relationships between perceived lack of reciprocity, personality, and emotional exhaustion.

Equity theory (Adams, 1965) suggests that individuals seek reciprocity in social relationships, expecting that their investments and gains in a relationship will be proportional to the investments and gains of the other party in the relationship (interpersonal reciprocity). Furthermore, Pritchard (1969) introduced internal standards to the perception of reciprocity and argued that individuals would also expect their own perceived gains to be proportional to their perceived investments (intrapersonal reciprocity). This quality of exchange can be expressed by the ratio of investments to exchange outcomes between the two parties in a relationship (Adams, 1965). Equity theory is one of the most influential theories in psychology, and has been applied at both the individual and the organizational levels

(Walster, Berscheid, & Walster, 1973). Applications of equity theory in the workplace started to emerge in the 1970's (Arnold, Silvester, Patterson, Cooper, & Burnes, 2005) with developments such as the Leader-Member Exchange theory (Dansereau, Graen, & Haga, 1975), distributive and procedural justice (Folger, 1977), the Effort-Reward Imbalance model (Siegrist, 1996), and the DLSE model (Schaufeli et al., 1996). Empirical work has shown that perceived lack of reciprocity and perceived inequity at work are strongly related to burnout (Buunk & Schaufeli, 1993; Lee & Ashforth, 1996; Siegrist, 1996; Taris, Kalimo, & Schaufeli, 2002), sickness absence (Kalimo, Taris, & Schaufeli, 2003), and turnover intentions (Geurts, Schaufeli, & Rutte, 1999). These findings have been replicated in longitudinal studies (e.g., Bakker, Schaufeli, Sixma, Bosveld, & van Dierendonck, 2000; Taris, Peeters, Le Blanc, Schreurs, & Schaufeli, 2001). The terms "equity" and "reciprocity" have been used interchangeably in the literature. In the present study we conceptualize reciprocity in terms of the DLSE model and we will, thus, use the term "reciprocity" as has been done by this particular stream of research.

The DLSE model (Schaufeli et al., 1996) was proposed to explain the link between perceived lack of reciprocity in the work context and health or motivational outcomes by distinguishing between different relationships. In particular, the model distinguishes between lack of reciprocity at the interpersonal level (i.e., relationship with recipients) and lack of reciprocity with the organization (i.e., relationship with the organization as a whole). The former involves perceived lack of reciprocity in terms of inputs and outputs in the relationship with one's recipients, whereas the latter takes the organization as a referent and echoes violations of the psychological contract (Robinson & Rousseau, 1994). Both levels of reciprocity have been strongly associated with burnout, whereas lack of reciprocity with the organization has also been associated with poor organizational commitment (for a review, see Schaufeli, 2006). Initially, the DLSE model defined the interpersonal level as involving the

relationship with one's recipients. However, later studies also linked lack of reciprocity in the relationship with one's colleagues with burnout (Taris, Van Horn, Schaufeli, & Schreurs, 2004; Van Horn, Schaufeli, & Taris, 2001). In the present study, we conceptualize perceived reciprocity at two different levels: the relationship with the colleagues and the relationship with the organization. Our focus is on emotional exhaustion, the core dimension of burnout (Maslach, 1982) and the outcome which has been linked consistently with all types of perceived reciprocity. Burnout is an extreme reaction to work-related strain that can be described as a prolonged response to chronic stressors at work and is often conceptualized as a three-dimensional syndrome, consisting of an overwhelming exhaustion, feelings of cynicism, and reduced professional efficacy (Maslach, Schaufeli, & Leiter, 2001).

The role of individual differences has been examined both in the context of burnout (e.g., Halbesleben & Buckley, 2004) and in relation to perceptions of reciprocity. Maslach and Leiter (1997) suggest that individual differences such as personality and attribution style can lead to differential reactions to adverse health outcomes, independently of the influence of perceived work characteristics. For example, there is some evidence that the relationship between perceived lack of reciprocity and adverse psychological health outcomes such as burnout, is moderated by self-efficacy (van Yperen, 1998) and communal orientation (Truchot & Deregard, 2001). Furthermore, a range of personality constructs have been suggested (but often not investigated empirically) to explain differences in perceptions of reciprocity. For instance, equity sensitivity has been suggested to explain why some individuals get more distressed by perceived discrepancies in interpersonal investments and gains than others (Huseman, Hatfield, & Miles, 1987). While this concept can be useful for explaining perceived reciprocity, it is also worth examining the mechanisms underlying this relationship and how broader personality traits may be linked to perceived lack of reciprocity and experienced burnout.

Approaching the examination of perceived reciprocity with a focus on personality is justified by existing theory. Spector, Zapf, Chen, and Frese (2000) used six different explanatory mechanisms to explain the relationship between affect and work stressors: perception, hyper-responsivity, selection, stressor creation, mood, and causality. Similar mechanisms may account for the relationship between personality traits (e.g., emotional stability, negative affect) and perceived lack of reciprocity. For example, Depue and Monroe (1986) and Dohrenwend, Dohrenwend, Dodson, and ShROUT (1984) suggested that individuals high in negative affect can create adverse circumstances via their behavior (the stressor creation mechanism). This is also consistent with the proposition that individuals can “craft” their own work stressors (Briner, Harris, & Daniels, 2004). Likewise, the relationship between personality and perceived lack of reciprocity could be a matter of differential exposure to stimuli. The social cognitive view (e.g., Shoda & Mischel, 1993) suggests that the environment can influence behavior, but at the same time personality can also shape an individual’s environment. Barsky and Kaplan (2007) proposed that perceptions of justice or injustice are largely a result of the interplay between fundamental cognitive and social information processes (e.g., memory, schemata), on the one hand, and phenomenological states of feeling, on the other.

There is some empirical work that provides evidence for a relationship among the Big Five personality traits (neuroticism, extraversion, openness, agreeableness, and conscientiousness; Goldberg, 1981), perceived lack of reciprocity, and burnout. Although there is clearly a link between personality, reciprocity, and burnout, most of the existing empirical work neglects to systematically examine a wide range of personality traits in a comprehensive way, also distinguishing between broad and narrow traits (e.g., Brennan & Skarlicki, 2004). Furthermore, existing work tends to treat personality either as a moderator of the relationship between perceived reciprocity and a range of outcomes, or as a predictor of

perceived reciprocity (Barsky & Kaplan, 2007; Colquitt, Scott, Judge, & Shaw, 2006; Flaherty & Moss, 2007; Ho, Weingart, & Rousseau, 2004), neglecting the possibility that personality traits can assume both roles. Finally, current research has overlooked the potential practical implications that differentiating between perceived lack of reciprocity at the individual and the organizational levels can have.

The aim of the present study is to examine, in a comprehensive way, (i) the relationship between personality and perceived lack of reciprocity, and (ii) whether personality moderates the relationship between perceived lack of reciprocity and emotional exhaustion. In the following section we review the literature on main and interaction effects between personality, perceptions of reciprocity, and burnout. We can expect that the strength of the relationship between personality and perceived lack of reciprocity will differ for the two levels of reciprocity, but there is no theoretical rationale to suggest the direction of the relationships. Thus, all hypotheses were phrased in identical ways for both levels of reciprocity. This does not exclude the possibility of differential findings.

Personality and Perceived Lack of Reciprocity: Main Effects

There is a wide agreement that personality can be described in terms of five core traits: neuroticism, extraversion, openness, agreeableness and conscientiousness (McCrae & Costa, 2003). We decided not to include openness in this study, as no theoretical expectations could be developed for openness and perceived lack of reciprocity. In addition to the Big Five, a number of personality traits (e.g., negative affectivity, locus of control, Type-A behavior pattern (TABP)) have been linked to perceived lack of reciprocity and are also discussed here. In our analyses we decided to treat the Big Five as separate of the additional personality traits. The former are often described as broad and provide a comprehensive description of personality which we did not want to confound by the inclusion of narrower traits. Treating broad and narrow traits separately respects the basic taxonomic level of the personality

variables (Hough & Schneider, 1996). Many would argue that TABP subsumes facets of several Big Five traits, at least conscientiousness and neuroticism (Tokar, Fischer, & Subich, 1998). However, for the sake of simplicity and clarity, we included it with the narrow traits. Below, we present existing evidence separately for each personality trait.

Extraverted individuals have a predisposition to positive emotions (Costa & McCrae, 1992), they like social gatherings and come across as talkative and assertive (Costa & McCrae, 2006), are dominant and ambitious (Watson & Clark, 1997) and tend to be more satisfied with their jobs (Judge, Heller, & Mount, 2002). Because of their external focus, extroverts have a preference for external rewards (Stewart, 1996), are motivated by a will to do better than others (Barrick, Stewart, & Piotrowski, 2002), and value “voice” in the workplace (Avery, 2003). Research on the relationship between extraversion and perceptions of reciprocity is sparse. Individuals high in equity sensitivity tend to be introspected and low in extraversion (Colquitt et al., 2006; Lovas & Wolt, 2002). There is also a moderate negative relationship between perceptions of interactional justice and extraversion (Barsky & Kaplan, 2007). Extraversion may be related to positive emotions but at the same time is linked to increased social interactions and assertiveness. Being very sociable and outgoing, extraverted individuals tend to have more access to information about others’ behaviors and may thus be more sensitive to perceived lack of reciprocity. This is consistent with the social cognitive view (Shoda & Mischel, 1993).

Hypothesis 1. Extraversion is positively related to perceived lack of reciprocity with colleagues (LRC)(H1a) and perceived lack of reciprocity with the organization (LRO) (H1b).

Agreeableness consists of traits such as altruism, nurturance, and emotional support (Digman, 1990) and has been linked to forgiveness (Ashton, Jackson, Helmes, & Paunonen, 1998). Agreeable individuals strive for interpersonal intimacy (Graziano, Jensen-Campbell, &

Hair 1996) and are cooperative and trusting (Costa & McCrae, 1992). They are helpful and tend to believe that others will be equally helpful in return (Costa & McCrae, 2006). In the context of employee selection, agreeableness has been positively associated with perceptions of fairness (Bernerth, Feild, Giles, & Cole, 2006; Truxillo, Bauer, Campion, & Paronto, 2006). It can be expected to be related more broadly to perceived lack of reciprocity at work. This expectation is consistent with the Affect Infusion Model (Forgas, 1995) which describes the influence of affect on thinking and judgment. In two experiments, Forgas (1998) found that happy people tend to have positive expectations when involved in negotiation, which was not true for individuals with negative affect or high in machiavellianism. Due to its link with positive affect, agreeableness can be expected to be negatively associated with perceived lack of reciprocity.

Hypothesis 2. Agreeableness is negatively related to LRC (H2a) and LRO (H2b).

Conscientiousness has been referred to as “will to achieve” (Digman & Takemoto-Chock, 1981) and can lead to job satisfaction through increased rewards (e.g., Judge, Heller, & Mount, 2002; Organ & Lingl, 1995). Conscientious individuals are achievement-oriented and characterized by deliberation (McCrae & Costa, 2003). They are more interested in their personal performance rather than in economic rewards (Stewart, 1996). Because of their intrinsic motivation, they would be expected not to compare themselves with others. Conscientiousness is negatively related to perceptions of contract breach (Raja, Johns, & Ntalianis, 2004). It can be expected that the rewards which conscientious individuals receive for their performance will not provide them with opportunities to experience lack of reciprocity. Additionally, their determination and will to achieve may focus attention away from unbalanced social exchanges.

Hypothesis 3. Conscientiousness is negatively related to LRC (H3a) and LRO (H3b).

Emotional stability is the opposite of neuroticism and, along with extraversion, is one of the Big Two personality traits (Digman, 1990). Individuals low in emotional stability are susceptible to psychological distress and have a tendency to experience negative affect (Costa & McCrae, 2006). Anxiety – a facet of low emotional stability – refers to a tendency of an individual to feel worried, while self-consciousness refers to a feeling of being inferior to others (McCrae & Costa, 2003). In occupational selection, neuroticism has been negatively associated with applicant perceptions of fairness (Bernierth, Feild, Giles, & Cole, 2006; Truxillo, Bauer, Campion, & Paronto, 2006) and positively related to perceptions of contract breach (Raja, Johns, & Ntalianis, 2004). The link between emotional stability and perceived lack of reciprocity is consistent with the Affect Infusion Model (Forgas, 1995).

Hypothesis 4. Emotional stability is negatively related to LRC (H4a) and LRO (H4b).

As mentioned, the present study aims to examine a range of narrow personality traits in addition to the four broad personality traits. We showed a preference for traits which are linked to perceived lack of reciprocity by already existing evidence and theoretical reasoning, but at the same time, have not been examined comprehensively. In our aim to explore additional personality traits that can explain perceived lack of reciprocity, we identified negative affect, internal locus of control, and TABP.

Negative affect is a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states (Watson, Clark, & Tellegen, 1988). Negative affectivity is a mood dispositional dimension that reflects a tendency to feel distressed and have a negative self-perception (Watson & Clark, 1984). Negative affect has been studied more often than positive affect in relation to equity. Both negative affectivity (e.g., see meta-analysis by Cohen-Charash & Spector, 2001) and negative affect can lead to perceptions of procedural and interactional justice (Barsky & Kaplan, 2007). This finding can be explained by the Affect Infusion Model (Forgas, 1995). It can also be explained by the

Affect-as-Information model (Schwarz, 1990), which suggests that people use affect as a heuristic, substituting feelings for objective criteria when making social judgments. Thus, a tendency to view situations as negative can lead to biased perceptions of reciprocity.

Hypothesis 5. Negative affect is positively related to LRC (H5a) and LRO (H5b).

Locus of control, a core self-evaluation trait, refers to the degree to which individuals believe that the outcomes of their behavior depend on their own behavior or personal characteristics (internal locus of control) rather than on chance, luck, fate, or the influence of powerful others (external locus of control) (Rotter, 1990). Locus of control has been studied extensively in the workplace context (e.g., see meta-analysis by Judge & Bono, 2001). Spector (1982) argued that employees with internal locus of control look to themselves for direction, whereas those with external locus of control tend to look to others for guidance. Thus, internals tend to expect that good performance will lead to rewards and to perceive the work situation as more equitable than externals (Spector, 1982). External locus of control can indicate benevolent equity sensitivity (i.e., relationship versus outcome orientation, King & Miles, 1994) and consequently lead to perceptions of contract breach (Raja, Johns, & Ntalianis (2004).

Hypothesis 6. Internal locus of control is negatively related to LRC (H6a) and LRO (H6b).

Type-A behavior pattern (TABP) has been defined as “an action-emotion complex that can be observed in any person who is aggressively involved in a chronic incessant struggle to achieve more and more in less and less time, and if required, to do so against the opposing efforts of the other things or persons in the same environment” (Friedman & Rosenman, 1974, p. 37). Individuals with Type-A personality tend to be insecure (Price, Friedman, Ghandour, & Fleischmann, 1995), aggressive (Neuman & Baron, 1998), in need of control, they compare themselves with others (Friedman & Rosenman, 1974), use

maladaptive social comparison strategies (Yuen & Kuiper, 1992), and have a fear that justice does not prevail in the world (Lee, 1992). Because of the competitive component of TABP (Jawahar, 2002), it is possible that the link between aversive events and perceived lack of reciprocity is stronger for individuals high in TABP.

Hypothesis 7. TABP is positively related to LRC (H7a) and LRO (H7b).

Perceived Lack of Reciprocity, Personality and Emotional Exhaustion: Interaction

Effects

In the literature personality has typically been used as a moderator variable rather than a predictor in itself. Empirical studies have shown that several personality traits moderate the relationship between perceptions of reciprocity and behavioral outcomes, such as counterproductive work behavior (Colquitt et al., 2006) and retaliation (Skarlicki, Folger, & Telsuk, 1999). We are not aware of any studies focusing on personality traits as moderators of the relationship between perceived lack of reciprocity at work as measured by the DLSE model and emotional exhaustion.

To some extent, the personality traits discussed here have also been associated conceptually and empirically with reduced well-being and emotional exhaustion. Extroverts tend to be optimistic and of “exuberant high spirits” (Costa & McCrae, 2006). Therefore, highly extraverted individuals are not expected to experience exhaustion as a response to perceived lack of reciprocity. They may overtly express frustration and anger but will tend not to feel emotionally exhausted. Agreeableness is negatively associated with negative emotive responses to unmet promises in the workplace (Ho, Weingart, & Rousseau, 2004). It can moderate the relationship between perceptions of the work situation and deviant behavior in such a way that the association is stronger for individuals lower in agreeableness (Colbert, Mount, Harter, Witt, & Barrick, 2004). Similarly, Flaherty and Moss (2007) showed that when agreeableness is high and neuroticism is low, the effects of justice on counterproductive

work behavior are diminished. From a more health-related perspective, Elovainio, Kivimäki, Vahtera, Virtanen, & Keltikangas-Järvinen (2003) showed that the relationship between relational justice and sickness absence was stronger for men higher in neuroticism. Moreover, the link between neuroticism and emotional exhaustion has often been found to be substantial (Bakker, van Der Zee, Lewig, & Dollard, 2006; Zellars, Perrewé, & Hochwarter, 2000). In contrast, there is no evidence to suggest an association between conscientiousness and emotional exhaustion, or to support a role for conscientiousness as a moderator between perceived lack of reciprocity and health-related or behavioral outcomes. Therefore, this trait was not included in our hypothesis. Skarlicki, Folger, and Tesluk (1999) showed that the combination of low interactional and distributive justice was related to organizational retaliatory behavior for individuals high in negative affectivity. Moreover, Iverson, Olekalns, and Erwin (1998) found that negative affectivity predicted emotional exhaustion. Raja, Johns, and Ntalianis (2004) found that the association between contract breach was stronger for individuals low in external locus of control.

Hypothesis 8: The link between (LRC and LRO) and emotional exhaustion is stronger for individuals lower in extraversion (H8a), lower in agreeableness (H8b), higher in emotional stability (H8c), higher in negative affect (H8d), lower in internal locus of control (H8e), and higher in TABP (H8f).

Method

Participants and Procedure

Participants were 322 civil servants, 29% males and 71% females, from four Greek ministry departments. Of them, 17% were 18–29 years old, 53% were 30–45 years old, 27% were 46–56 years old, and 3% were older than 57. Tenure ranged from 2 months to 35 years ($M = 13.0$, $SD = 10.0$). The majority (66%) of the respondents were educated to at least

Bachelor's degree. The average response rate was 60%, with small differences between departments.

The first author was introduced to all departments by a manager or an employee and briefed employees on the aims of the study. Participation was voluntary. The researcher briefly described the study as looking at personality and perceptions of the workplace characteristics before administering copies of the questionnaire to all employees and asking them to complete it and leave it in a sealed envelope with a contact person in the organization. The study was approved by the University's Ethics Committee.

Measures

Extraversion, agreeableness, conscientiousness, and emotional stability were measured with the respective scales from the Greek version of the *International Personality Item Pool (IPIP) 50 Big-Five Factors Markers* (Goldberg, 1999; Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, & Gough, 2006). Each was measured with 10 items. Example items are "I am the life of the party" (extraversion), "I am interested in people" (agreeableness), "I pay attention to details" (conscientiousness), and "I get stressed out easily" (emotional stability). Respondents indicated how representative each phrase was of themselves, using a scale ranging from 1 = not at all representative to 5 = very representative. In the present study Cronbach's $\alpha = .74$ for extraversion, $.74$ for agreeableness, $.75$ for conscientiousness, and $.85$ for emotional stability.

Negative affect was measured using part of the Positive and Negative Affect Schedule – Expanded Form (PANAS-X) (Watson & Clark, 1994). We used 22 adjectives measuring fear, hostility, guilt, and sadness. For each adjective the respondents indicated to what extent they had felt this way during the last few weeks (from 1 = very slightly or not at all to 5 = extremely). In the present sample, Cronbach's $\alpha = .89$ for the overall scale. The scale was translated into Greek and back-translated into English. There was only one discrepancy which

led to an amended translation of one adjective. The translation-back translation process was repeated with a new translator.

Locus of control was measured with the Greek version of the internal control subscale of the Internality, Powerful Others and Chance Scale (Levenson, 1981). Since internality is the core subscale of Levenson's questionnaire, we decided to use only that subscale (e.g., Judge, Erez, Bono, & Thoresen, 2002). The scale has been adjusted to Greek by Georganti, Pavlopoulos, and Yanitsas (2007) but has not yet been validated. The internal control subscale consists of 8 items (e.g., "Whether or not I get to be a leader depends mostly on my ability", "Whether or not I get into a car accident depends mostly on how good driver I am"). Respondents were asked to indicate how much they agree with each statement on a 6-point scale ranging from 1 = disagree strongly to 6 = agree strongly. Cronbach's $\alpha = .61$.

Type-A behavior pattern (TABP) was measured with the Greek version of Järvikoski and Härkäpää's (1987) 15-item Type-A questionnaire. The measure consists of four factors: (i) impatience, irritability, and speed, (ii) efficiency and activeness, (iii) competitiveness and aspiration, and (iv) tenseness and inability to relax. Sample items include "I am easygoing by nature" and "My attitude toward life is casual, and I am not easily irritated". A 5-point Likert-type response scale was used ranging from 1 = strongly disagree to 5 = strongly agree. The questionnaire was adjusted but not validated in Greek by Anagnostopoulou and Kioseoglou (2002), who found overall Cronbach's $\alpha = .57$. In the present sample, Cronbach's $\alpha = .56$ and after the exclusion of item 1 it reached .59. Likewise, in Järvikoski and Härkäpää's (1987) original study, item 1 was deleted before factor analysis.

Perceived lack of reciprocity. An important issue in measuring reciprocity is whether to use ratio scores calculated by researchers or self-report measures completed by the respondents themselves (Schaufeli, 2006). Following Adams's (1965) conceptualization of equity, the vast majority of research on perceived lack of reciprocity at work has used ratio

scores. To measure *perceived lack of reciprocity with colleagues* (LRC), two items used by Schaufeli and Le Blanc (1997) were included in the study questionnaire. Respondents were provided with a general description of investments and outcomes (specifically, they were informed that the questions related to the material and immaterial investments that they tend to make and outcomes that they receive from their relationships with colleagues, as in any other type of relationship). They were then asked to indicate investments and outcomes in their own relationship with their colleagues using a 5-point Likert scale ranging from 1 = very little to 5 = very much. In order to obtain an intrapersonal ratio of perceived lack of reciprocity, the relationship input (“How much do you invest in the work relationship with your colleagues”) was divided by the outcome (“How much do you receive from your work relationship with your colleagues”) (see Schaufeli et al., 1996). Similarly, two items were used to measure *perceived lack of reciprocity with the organization* (LRO) (e.g., “How much effort do you feel you put into your job” and “How many outcomes do you feel you receive from your job”). The two items were based on van Dierendonck, Schaufeli and Buunk’s (1996) 4-item scale constructed for this purpose, and were used to compute the intrapersonal ratio. All four items used to measure perceived lack of reciprocity have been adjusted to Greek by Petrou and Pavlopoulos (2006).

Emotional exhaustion was measured with the 5-item subscale of the Maslach Burnout Inventory–General Inventory (MBI–GS) (Schaufeli, Leiter, Maslach, & Jackson, 1996). The Greek version of the MBI–GS has been validated by Demerouti, Bakker, Vardakou, and Kantas (2003). Respondents were asked to indicate how often a phrase applied to them on a scale from 0 = never to 6 = always (e.g., “I feel emotionally drained from my job”, “I feel tired when I get up in the morning and have to face another day on the job”). In the present study Cronbach’s $\alpha = .83$.

Analytical Approach

To test hypotheses of main effects, four hierarchical regression analyses were carried out to determine the impact of personality traits on perceived lack of reciprocity (LRO and LRC), using SPSS Regression v.15. For each dependent variable one analysis was conducted with the four broad personality traits (extraversion, emotional stability, agreeableness, and conscientiousness) and a separate one with the three narrow traits (internal locus of control, negative affect, and TABP) as independent variables. As already mentioned, we decided to treat the Big Five and the narrow traits separately. This has been the analytical approach adopted by many fairness-related studies that tested for main or interaction effects of both broad and narrow traits (Colquitt et al., 2006; Raja, Johns, & Ntalianis, 2004; Skarlicki, Folger, & Telsuk, 1999). Narrow personality traits can have an independent role from that of core or broad personality traits in predicting organizational outcomes (Hastings & O'Neill, 2009) and their impact should not be confounded. In the present analyses we entered the control variables in Step 1, followed by the independent variables in Step 2, separately for the four broad and the three narrow personality traits.

The experience of emotional exhaustion can differ in different demographic groups (Wright & Bonett, 1997). It was thus necessary to control for age, gender, and education in the analyses. Tenure has been linked to emotional exhaustion (Wright & Cropanzano, 1998) and was thus also used as a control variable in the present study. Finally, the organizational context can differentially impact on work behavior and outcomes (Griffin, 2001; Rousseau & Fried, 2001). Since multilevel modeling was beyond the scope of this study, the possible effects of ministry department were also controlled for in the analyses.

Four moderated regression analyses were conducted in order to examine the moderation hypotheses. Emotional exhaustion was the dependent variable. Control variables were entered in Step 1. Type of perceived lack of reciprocity (LRC, LRO) and the personality traits were entered in Step 2 simultaneously (separate analyses were conducted for the two

levels of perceived lack of reciprocity and for broad and narrow traits). The centered interaction terms between perceived lack of reciprocity and personality traits were entered in the last step, as suggested by Aiken and West (1991).

As we were mainly interested in the main and moderating effects of personality, we did not develop any hypotheses on the possible mediation effects of perceived lack of reciprocity on the relationship between personality and emotional exhaustion. However, we decided to also test those mediation effects by following Preacher and Hayes' (2004) suggestions. First, we conducted linear regression analyses to compute a (the raw regression coefficient for the association between the IV and the mediators), s_a (standard error of a), b (the regression coefficient for the association between the mediator and the DV when the IV is also a predictor of the DV), and s_b (standard error of b). We then conducted Aroian tests (Aroian, 1944, 1947) in order to test for mediation effects. The Aroian test examines whether the indirect effect of one variable on another via a third variable is significantly different from zero (indicated by a z-value).

Prior to the analyses, all variables were screened for normality. The majority had skewness between $+/-2$ and kurtosis between $+/-3.29$, meeting the accepted criteria (Tabachnick & Fidell, 2000). The assumptions for regression analysis (homoscedasticity, absence of multicollinearity, independent errors, and linearity) were met. Outliers were identified and replaced with the most proximate non-extreme value. The ratio of cases-to-predictors was generous, with $N = 322$ fulfilling the minimum of $50 + 8m (> 226)$ ($m =$ the number of predictors) (Tabachnick & Fidell, 2000).

Results

Table 1 reports the M , SD , and zero-order (Pearson) correlations r for the control variables, perceived lack of reciprocity, personality traits, and emotional exhaustion. There

were several significant correlations between perceived lack of reciprocity and personality traits, with $|.12| < r < .20|$ ($p < .05$). The highest correlation was between LRO and emotional stability at $r = -.20$ ($p < .001$). As expected, there were also low to moderate correlations between personality traits, $|.11| < r < .56|$ ($p < .001$), with the highest r for emotional stability and negative affect ($r = -.56$, $p < .001$). None was so high so as to raise concerns for multicollinearity.

Insert Table 1 about here

Table 2 displays the results of the regression analyses for the main effects of personality traits on perceived lack of reciprocity (LRC and LRO). Hypothesis 1a was supported: high extraversion was positively associated with LRC ($\beta = .15$, $p < .05$). Agreeableness was associated with LRO, but in a direction opposite to the one expected by Hypothesis 2b ($\beta = .14$, $p < .05$). Conscientiousness was not related to perceived lack of reciprocity, failing to support Hypothesis 3. Hypothesis 4b was also supported: emotional stability was negatively related to LRO ($\beta = -.24$, $p < .001$). Negative affect was not associated with either LRO or LRC, thus Hypothesis 5 was not supported. Hypothesis 6b was supported as internal locus of control negatively predicted LRO ($\beta = -.21$, $p < .001$). Finally, TABP was positively associated with both LRC ($\beta = .13$, $p < .05$) and LRO ($\beta = .19$, $p < .001$), providing full support to Hypothesis 7.

Insert Table 2 about here

The results of the moderated regression analyses are presented in Tables 3 (broad personality traits) and 4 (narrow personality traits). The link between LRO and emotional

exhaustion was stronger for respondents high in extraversion than for respondents low in extraversion ($\beta = .15, p < .05$) (see Figure 1). This was opposite to the direction predicted by Hypothesis 8a. Negative affect moderated the relationship between LRO and exhaustion ($\beta = -.13, p < .05$); the relationship was stronger for participants reporting lower negative affect (see Figure 2). This was also opposite to the direction predicted by Hypothesis 8d. With regards to the remaining hypotheses, analyses yielded non-significant results. In other words, agreeableness, emotional stability, internal locus of control, and TABP did not moderate the relationships between perceived lack of reciprocity and emotional exhaustion. A summary of the findings (direct and interaction effects) is presented in Table 5.

Insert Tables 3, 4 and 5 about here

Insert Figures 1 and 2 about here

Three of the mediation effects were found to be significant when LRO was used as a mediator. Aroian tests (Table 6) indicated that LRO was a significant mediator in the effects of emotional stability ($z = 2.25, p < .01$), TABP ($z = 2.08, p < .05$), and locus of control ($z = 2.51, p < .01$), on emotional exhaustion.

Insert Table 6 about here

Discussion

The present study looked at how personality traits are associated with perceived lack of reciprocity with colleagues and the organization, and whether personality moderates the relationship between perceived lack of reciprocity and burnout, measured as emotional exhaustion.

Extraversion, agreeableness, emotional stability, negative affect, internal locus of control, and TABP directly predicted perceived lack of reciprocity, while the interaction effects were significant for extraversion and negative affect. Perceived lack of reciprocity was not expected to differ between relationship with colleagues and relationship with the organization. This was only confirmed for the main effects of TABP. Indeed, according to the definition by Friedman and Rosenman (1974) Type-A individuals' aggression can be against both "things" and "persons". This finding confirmed Jawahar's (2002) expectation that aversive events would be associated with perceived lack of reciprocity for individuals higher in TABP.

Extraversion was found to predict perceived lack of reciprocity with colleagues. Although this finding seems to counter other reported findings (e.g., Barsky & Kaplan, 2007), it is consistent with our expectations. Due to their sociable nature extroverts may have more information about the behaviors of others and be more prone to social comparisons. This is also consistent with the social cognitive approach (Shoda & Mischel, 1993). However, extraversion did not predict perceived lack of reciprocity with the organization. There is evidence (Kirkcaldy, Furnham, & Lynn, 1992; Lynn & Martin, 1995) that extraversion is linked to competitiveness. In addition, if the social skills of extraverted individuals and their preference to spend time with others are taken into account, it may not be so striking that their focus is on perceived lack of reciprocity with colleagues rather than the organization. Thus, personality is related to different levels of perceived lack of reciprocity in different ways.

The finding that agreeableness was positively associated with perceived lack of reciprocity with the organization may seem puzzling. However, earlier studies have also found such unexpected relationships. For example, Jensen-Campbell, Knack, Waldrip, and Campbell (2007) found that agreeableness was positively associated with anger. The authors explained this finding by proposing that agreeable individuals may display negative affect because receiving negative feedback represents a greater mismatch of their interpersonal orientation. Another way to interpret this finding is by drawing on the tendency of agreeable individuals to avoid interpersonal conflict (Graziano, Jensen-Campbell, & Hair, 1996). Agreeable individuals may suppress their negative feelings towards others and channel these emotions into the organizational relationship which is more impersonal and “safer” for their agreeable nature. Furthermore, in the present study we found that two traits which are commonly associated with positive affect, namely extraversion and agreeableness, predicted perceived lack of reciprocity. Our original hypothesis regarding extraversion was based on the social cognitive view, rather than on the link between extraversion and negative affect. However, these findings suggest that positive affect might actually be linked to perceived lack of reciprocity.

Contrary to our expectations, conscientiousness was not associated with perceived lack of reciprocity. We suggested that a link between the two may arise through high job performance and, thus, increased rewards. Indeed, conscientiousness is one of the most intensely studied personality traits in relation to job performance. However, these findings may not hold in different cultures. The few existing Greek studies on personality and job performance (Nikolaou, 2003; Nikolaou & Robertson, 2001) have not found any links between conscientiousness and task or extra-role performance. In a cross-cultural study examining personality and work values in the UK and Greece, conscientiousness was not

associated for either sample with the “work relationships” factor, a factor of work values that also included fairness (Furnham, Petrides, Tsaousis, Pappas, & Garrod, 2005).

As expected, emotional stability was strongly and negatively associated with perceived lack of reciprocity with the organization. This is consistent with previous studies (e.g., Raja, Johns, & Ntalianis, 2004). However, negative affect did not predict perceived lack of reciprocity. There is some evidence (Rusting & Larsen, 1997) to indicate that negative affect is predicted by neuroticism. If so, neuroticism could then be seen as an antecedent and negative affect as a consequence. This could explain why emotional stability (the opposite pole of neuroticism) is a stronger predictor of perceived lack of reciprocity than negative affect.

Internal locus of control was negatively associated with perceived lack of reciprocity with the organization but not with colleagues. Levenson (1981) defines locus of control as a multidimensional concept and suggests that “externals” would also believe in chance and expect that their life events are controlled by powerful others. We did not measure all facets of Levenson’s (1981) scale. However, a possible explanation for the unsupported hypothesis relating to perceived lack of reciprocity with colleagues may be that a relationship with a hierarchically structured organization can be perceived by “externals” as more uncontrollable than relationships with colleagues. This may be the case for Greek organizations which are characterized by a high power distance (House, Hanges, Ruiz-Quintanilla, Dorfman, Javidan, Dickson, & Gupta, 1999).

Regarding the moderation hypotheses, only two interactions were linked to emotional exhaustion. Although negative affect was not associated with perceived lack of reciprocity, it did moderate the link with emotional exhaustion. Brennan and Skarlicki (2004) as well as Hochwarter, Amason, and Harrison (1995) found that reactions to perceived unfairness were less strong for individuals with a tendency to experience negative affect as compared to

individuals with a less strong tendency. They justified their findings in terms of Weitz's (1952) proposition that individuals high in negative affect are less sensitive to negative situations because they are normally in a state of discontent. Similarly, in the present study, individuals high in negative affect may not react adversely to perceived lack of reciprocity because they experience it as part of the normal circumstances. The second significant interaction effect could be explained in a similar manner. Extrovert individuals, being positively predisposed, may perceive lack of reciprocity with the organization as divergent from the normal circumstances, and thus respond in a more negative way, experiencing exhaustion at higher levels. The suggested dual role of personality both as a predictor and a moderator essentially suggests that perceived lack of reciprocity does not necessarily mean that these perceptions will have any consequences for one's well-being. For example, the reason why individuals low in emotional stability are likely to report higher perceived lack of reciprocity (as shown in the present study) may be because this is part of their responsive style. However, whether they will experience emotional exhaustion is likely to depend on a different mechanism involving their negative affect. In this case, high negative affect will enable them to "ignore" perceived lack of reciprocity which will not lead to emotional exhaustion.

The expectations concerning the mediating role of perceived lack of reciprocity between personality and emotional exhaustion were supported. After hypothesizing that personality traits may predict perceived lack of reciprocity and that perceived lack of reciprocity is linked to emotional exhaustion (which is well-established, for example, see the review by Schaufeli, 2006), it can be expected that personality traits can also act as mediators. For this partial mediation to be significant, the link between personality and burnout would also have to be significant. As already mentioned, past research has demonstrated this. Indeed, and consistent with the three mediation effects supported in this study, past research

has shown burnout to be associated with emotional stability (Bakker et al., 2006), TABP (Hallberg, Johansson, & Schaufeli, 2007) and locus of control (Schmitz, Neumann, & Oppermann, 2000).

Contribution and Limitations of the Study

The present study contributes to advancing knowledge on the relationship between personality, perceived lack of reciprocity, and burnout in several ways. First, it confirms that perceived lack of reciprocity with colleagues and the organization are distinct concepts differentially related to personality and burnout. Second, a substantial part of the literature on perceived lack of reciprocity fails to examine potential personality moderators. This study helped to fill this gap by focusing on how personality influences perceived lack of reciprocity, examined as a predictor and as a mediator. Third, although past work has examined the quality of relationships with colleagues, this is conceptually different from perceptions of fair treatment by colleagues. Fourth, this study used work-related well-being as the broader context in which to examine the effects of personality on perceived lack of reciprocity, focusing on emotional exhaustion rather than on organizational behavior as frequently seen in the literature (e.g., Colquitt et al., 2006; Skarlicki, Folger, & Tesluk, 1999). Similarly, to our knowledge, such research questions have been hardly examined in non-Western, non-English speaking populations. Fifth, the present study examined a large number of personality traits as predictors and also as moderators. It showed that using a variety of personality traits can add to the interpretation of perceived lack of reciprocity. Apart from one, all measured personality variables were associated with perceived lack of reciprocity. Moreover, these findings suggest that two personality traits, extraversion and negative affect, may also act as moderators in the relationship between perceived lack of reciprocity and emotional exhaustion. To conclude, the study showed that a number of personality traits can have an effect on perceived lack of reciprocity, and furthermore they operate in different ways.

Some limitations of the study should be noted. First, our data relied on self-report. Watson and Pennebaker (1989) argued that both self-report measures of stressors and measures of health share components of negative affectivity and therefore we ought to be cautious when interpreting such findings. Second, the sample is representative of four ministry departments in Greece and cannot be easily generalisable to other populations or cultures. Third, the relatively low reliabilities of some of the measures could have affected the results. Further research could use strongly reliable measures for all constructs. Finally, the present design was cross-sectional thus placing limitations on inferring causal relationships. The reliance on cross-sectional self-reported data in this study may have inflated our results through common methods bias, but does not invalidate the findings (Doty & Glick, 1998).

Implications

The present findings showed that personality can predict perceived lack of reciprocity and moderate the relationship between perceived lack of reciprocity and emotional exhaustion. A large portion of the literature on perceived lack of reciprocity fails to measure or test personality traits as moderators. This is something that future research could address; some personality factors may well be important confounders or moderators in the relationship between perceived lack of reciprocity and health and well-being outcomes. Of course, we would not expect personality to be the most important factor for understanding perceived lack of reciprocity. The effects of personality are generally of small sizes (Cohen, 1977) as was the case in the present study. However, apart from the theoretical interest *per se* that personality effects have in equity research, a consistent and systematic examination of personality traits has the potential to improve understanding and account for increased observed variance in perceived lack of reciprocity and in a range of organizational outcomes. The present study adapted a principally work-related health perspective. Of course, there are other important outcomes that can be studied in addition to burnout, such as turnover, job satisfaction, and job

performance. The present model should also be replicated longitudinally. Finally, the concept of perceived lack of reciprocity, especially at the individual level, could be expanded to include a range of types of relationships, such as relationships with clients (as already examined within the DLSE model) or with the line manager.

There are also some important practical implications for organizations. It would be interesting to explore if and how personality traits can be used to inform organizational practices other than occupational selection. For example, it would be useful to consider personality when targeting perceived lack of reciprocity in the context of counseling or training. The roles of counselors or trainers can be more effective in resolving perceived lack of reciprocity if they consider the potential effects of personality.

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Table 1. Means, standard deviations, and correlations between study variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Gender																
2. Age			-.10													
3. Education			.03	-.06												
4. Tenure	12.5	10.4	-.05	.77***	-.26***											
5. Industry			-.03	.05	.02	.01										
6. LRC	1.14	.44	-.07	.07	.08	.03	.05									
7. LRO	1.57	1.04	-.10	-.03	-.12*	.05	-.05	.20***								
8. Extraversion	3.18	.69	.03	-.11*	.02	-.13*	-.06	.16**	.02							
9. Agreeableness	4.19	.50	.19***	.12*	.04	.10	-.02	.10	.08	.38***						
10. Conscientiousness	3.90	.62	.06	.16**	-.05	.18***	-.01	.03	-.07	-.05	.26***					
11. Emotional stability	2.94	.82	-.19***	.02	.10	.01	.02	.04	-.20***	.10	.07	.05				
12. Negative affect	1.82	.52	.10	-.03	-.02	-.01	.02	.12*	.07	-.07	-.09	-.12*	-.56***			
13. Internal locus of control	4.01	.62	-.08	-.04	-.12*	-.05	.02	-.09	-.19***	.16**	.11*	.27***	.18***	-.19***		
14. TABP	3.22	.46	.14*	-.05	.00	-.05	-.03	.14*	.15**	.17**	.05	.07	-.39***	.22***	.04	

15. Emotional exhaustion	2.66	1.15	.11*	-.05	-.07	-.02	.06	.04	.22***	-.07	-.08	-.05	-.30***	.33***	-.13*	.19***
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* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Note: $N = 322$; LRC = perceived lack of reciprocity with colleagues; LRO = perceived lack of reciprocity with the organization; TABP = Type-A behavior pattern.

Table 2. Results of regression analyses of personality on perceived lack of reciprocity

	LRC				LRO			
	β	t	ΔR^2	$F (df1, df2)$	β	t	ΔR^2	$F (df1, df2)$
<i>Predictors: Broad traits</i>								
Step 1 Control Variables			.03	1.52 (7, 299)			.03	1.34 (7, 299)
Step 2 Predictors			.03	2.27 (4, 295)			.07	5.65*** (4, 295)
Extraversion	.15	2.40*			-.02	-.37		
Agreeableness	.04	.63			.14	2.14*		
Conscientiousness	.02	.24			-.06	-1.07		
Emotional stability	.01	0.13			-.24	-4.26***		
<i>Predictors: Narrow traits</i>								
Step 1 Control Variables			.03	1.52 (7, 299)			.03	1.34 (7, 299)
Step 2 Predictors			.04	4.01** (3, 296)			.08	8.84*** (3, 296)
Negative affect	.08	1.31			.02	.32		
Internal locus of control	-.09	-1.61			-.21	-3.78***		
TABP	.13	2.30*			.19	3.33***		

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Note: $N = 322$; LRC = perceived lack of reciprocity with colleagues; LRO = perceived lack of reciprocity with the organization; TABP = Type-A behavior pattern.

Table 3. Results of moderated regression analyses with emotional exhaustion as a dependent variable, LRC and LRO as independent variables, and the broad personality traits as moderators

	Emotional exhaustion			
	β	t	ΔR^2	$F (df1, df2)$
<i>Independent variable: LRC</i>				
Step 1 Control variables			.04	1.83 (7, 299)
Step 2 Predictors			.09	7.26 (4, 295)***
LRC	.04	0.67		
Extraversion	-.02	-.29		
Agreeableness	-.08	-1.09		
Emotional stability	-.33	-5.02***		
Step 3 Interactions			.01	1.07 (3, 292)
LRC \times Extraversion	.15	1.78		
LRC \times Agreeableness	-.06	-.69		
LRC \times Emotional stability	.01	.16		
<i>Independent variable: LRO</i>				
Step 1 Control variables			.04	1.83 (7, 299)
Step 2 Predictors			.11	9.65 (4, 295)***
LRO	.21	2.71**		
Extraversion	-.02	-.26		
Agreeableness	-.10	-1.38		
Emotional stability	-.28	-4.21***		
Step 3 Interactions			.01	1.32 (3, 292)
LRO \times Extraversion	.15	1.98*		

LRO × Agreeableness	-.03	-.57
LRO × Emotional stability	-.02	-.31

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Note: $N = 322$; LRC = perceived lack of reciprocity with colleagues; LRO = perceived lack of reciprocity with the organization.

Table 4. Results of moderated regression analyses with emotional exhaustion as a dependent variable, LRC and LRO as independent variables, and the narrow personality traits as moderators

	Emotional exhaustion			
	β	t	ΔR^2	$F (df1, df2)$
<i>Independent variable: LRC</i>				
Step 1 Control variables			.04	1.83 (7, 299)
Step 2 Predictors			.12	10.34 (4, 295)***
LRC	-.03	-.44		
Negative affect	.32	4.76***		
Internal locus of control	-.10	-1.55		
TABP	.16	2.39*		
Step 3 Interactions			.00	0.20 (3, 292)
LRC × Negative affect	.06	.75		
LRC × Internal locus of control	.01	.12		
LRC × TABP	-.02	-.32		
<i>Independent variable: LRO</i>				
Step 1 Control variables			.04	1.83 (7, 299)
Step 2 Predictors			.14	12.90 (4, 295)***
LRO	.25	3.64***		

Negative affect	.31	4.83***		
Internal locus of control	-.08	-1.23		
TABP	.13	2.04*		
Step 3 Interactions			.02	2.92 (3, 292)*
LRO × Negative affect	-.13	-2.11*		
LRO × Internal locus of control	.10	1.74		
LRO × TABP	.01	.21		

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Note: $N = 322$; LRC = perceived lack of reciprocity with colleagues; LRO = perceived lack of reciprocity with the organization; TABP = Type-A behavior pattern.

Table 5. Summary of direct and interaction effects

Direct effects		
<i>Personality traits</i>	LRC	LRO
Extraversion	+	<i>n.s.</i>
Agreeableness	<i>n.s.</i>	+
Conscientiousness	<i>n.s.</i>	<i>n.s.</i>
Emotional stability	<i>n.s.</i>	–
Negative affect	<i>n.s.</i>	<i>n.s.</i>
Internal locus of control	<i>n.s.</i>	–
TABP	+	+

Moderators		
<i>Personality trait</i>	LRC	LRO
Emotional exhaustion	<i>n.s.</i>	+ for Extraversion – for Negative affect

Note: LRC = perceived lack of reciprocity with colleagues; LRO = perceived lack of reciprocity with the organization; TABP = Type-A behavior pattern; *n.s.* = non-significant effect; A plus sign indicates positive effects; A minus sign indicates negative effects; Findings reported for $p \leq .05$

Table 6. LRC and LRO as mediators of the relationship between the personality traits and emotional exhaustion

	Emotional exhaustion	
	Mediator: LRC	Mediator: LRO
<i>Independent variables</i>		
Extraversion	.81	.36
Emotional Stability	.41	2.25**
Agreeableness	.65	1.31
Conscientiousness	.26	1.23
TABP	.19	2.08**
Internal locus of control	-.38	2.46**
Negative affect	.00	1.09

** $p \leq .01$

Note: $N = 322$; LRC = perceived lack of reciprocity with colleagues; LRO = perceived lack of reciprocity with the organization; TABP = Type-A behavior pattern; Cells represent z-values (one-tailed tests).

Figures

Figure 1. Emotional exhaustion predicted by perceived lack of reciprocity with the organization (LRO) at high and low levels of extraversion.

Figure 2. Emotional exhaustion predicted by perceived lack of reciprocity with the organization (LRO) at high and low levels of negative affect.