The depleted leader: The influence of leaders' diminished psychological resources on leadership behaviors ☆,☆☆

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A R T I C L E   I N F O

A B S T R A C T

While much is understood about the outcomes of different leadership styles, less is known about the antecedents of leadership, particularly with regards to how leaders' own psychological well-being impacts leadership behaviors. Using conservation of resources theory as a framework, we investigated the relationship between leaders' depleted resources and their leadership behaviors. Conceptualizing depressive symptoms, anxiety, and workplace alcohol consumption as resource depletion, we predicted that depletion would be associated with lower levels of transformational leadership, and higher levels of abusive supervision, and when taken together, would further exacerbate these effects on leadership behaviors. In a study of 172 leader–subordinate pairs, leaders' depressive symptoms, anxiety, and workplace alcohol consumption separately predicted lower transformational leadership, and higher abusive supervision. Furthermore, partial support was found for an exacerbating effect on transformational leadership and abusive supervision.

1. Introduction

The focus of much leadership research is on its consequences and more specifically, the outcomes of either positive (e.g., transformational leadership; Bass & Riggio, 2006) or negative (e.g., abusive supervision; Tepper, 2007) leadership behaviors. In contrast, research on the predictors of leadership has lagged behind. While scholars have begun to investigate the individual, relational and contextual antecedents to transformational leadership (e.g., Bommer, Rubin, & Baldwin, 2004; Rubin, Munz, & Bommer, 2005), and abusive supervision (e.g., Hoobler & Brass, 2006; Tepper, Duffy, Henle, & Lambert, 2006; Tepper, Moss, & Duffy, 2011), one variable that has been virtually neglected (see Tepper et al., 2006 for an exception) is leaders' own psychological well-being. In other words, are leaders adequately equipped to engage in positive leadership behaviors, or does a lack of psychological resources lead instead to destructive forms of leadership?

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The omission of psychological well-being as *a predictor* of leaders' own behavior contrasts strongly with a long tradition of research focusing on psychological distress within the leadership context more generally. The majority of this research, however, has been concerned with the effects of good and bad leadership on *subordinates'* well-being (e.g., Bamberger & Bacharach, 2006; Kelloway, Turner, Barling, & Loughlin, 2012) or the impact of leaders' stress on employees' stress (Skagert, Dellve, Eklöf, Pousette, & Ahlborg, 2008; Theorell, Emdad, Arnetz, & Weingarten, 2001). There has been limited parallel research interest in *leaders'* well-being more generally, or leaders' well-being as an antecedent of leaders' behaviors. This imbalance is so stark, one could argue that the lack of interest in leaders' well-being derives from several assumptions: That (1) all leaders enjoy a positive state of psychological health, as a result of which research is not needed, (2) research findings on employee well-being and distress generalize fully to the nature and effects of leaders' psychological functioning, and/or (3) even if all leaders are not psychologically healthy, psychological distress has no negative consequences for leaders, their employees, or their organizations. We question the legitimacy of all these assumptions. Using the conservation of resources theory (Hobfoll, 1989, 2001), we explore the role of leaders' psychological distress – or in other words, leaders' resource depletion – in predicting their leadership behaviors.

2. Conservation of resources

Conservation of resources (COR) theory (Hobfoll, 1989, 1998, 2001) predicts that individuals who lack personal resources will experience stress, and will also be prone to further resource loss. Accordingly, people strive to obtain and protect a finite number of valued psychological characteristics (e.g., self-esteem, self-efficacy), objects (e.g., housing, clothing), energies (e.g., time, knowledge), and conditions (e.g., job security, social support) (i.e. their resources; Diener & Fujita, 1995; Hobfoll, 1998, 2001) in an effort to prevent potential suffering. However, once resource depletion occurs, individuals may struggle to re-stock their resource reservoirs (Hobfoll, 2001). While COR theory maintains that people must invest resources to recover from losses, depleted individuals will often adopt a defensive posture to conserve what little they have left, and may even use counterproductive and/or self-defeating loss-control strategies to do so (Hobfoll, 1989, 2001).

Research has now explored the negative impact of diminished resources on organizational outcomes. For example, depleted employees are more likely to experience burnout (Halbesleben, 2006; Lee & Ashforth, 1996; Neveu, 2007), job dissatisfaction, job tension, turnover intentions (Grandey & Cropanzano, 1999), reduced job performance (Wright & Cropanzano, 1998), and are less likely to engage in employee voice (Ng & Feldman, 2012). COR theory is also being used to explain the outcomes of negative leadership. For example, leaders' abusive behaviors deplete subordinate resources, which in turn, negatively impact subordinates' work withdrawal (Chi & Liang, 2013), work–family conflict (e.g., Carlson, Ferguson, Hunter, & Whitten, 2012) and job performance (Harris, Kacmar, & Zivnuska, 2007). A high quality, trusting leader–subordinate relationship (i.e., leader–member exchange) is also an important resource for reducing stress and work–family conflict among female employees (Bernas & Major, 2000), while ethical leadership is conceptualized as a resource that increases subordinate well-being and helping behavior (Kalshoven & Boon, 2012).

Despite this growing interest, little research exists involving COR and the effects of resources on leaders themselves. This shortage is surprising given the number and range of personal resources required for enacting high quality leadership. As elaborated below, to be effective leaders need a variety of cognitive (i.e. self-control, emotional intelligence), attitudinal (i.e., self-confidence, sense of mastery), and affective (i.e., optimism, hope) personal characteristics (Barling, Slater, & Kelloway, 2000; Howell & Avolio, 1993; Peterson, Walumbwa, Byron, & Myrowitz, 2009; Ross & Offermann, 1997; Walter & Bruch, 2007; Wang, Sinclair, & Deese, 2010). Thus, we suggest that there is much to be gained from using COR theory to understand the role of leaders' psychological resource depletion in predicting leadership behavior.

3. The demands of leadership

The tasks and behaviors required for effective leadership are inherently complex and demanding. Leaders must influence specific tasks, goals and broad strategies, employee commitment and compliance, and organizational culture (Yukl, 2000), social relationships (Parry, 2011) team effectiveness (Hackman, 2002), and decision-making (Finkelstein & Hambrick, 1996). Thus, much is required of leaders to be effective in their leadership role (Wang et al., 2010). Leaders therefore require an array of tools (e.g., personal characteristics, energies and various supports) – or in other words, a sufficient number of resources – if they are to be successful. This becomes evident when considering both positive and negative forms of leadership, namely transformational leadership (Bass & Riggio, 2006) and abusive supervision (Tepper, 2007). We investigate the effects of resource depletion on both.

3.1. Transformational leadership

Transformational leadership now receives more empirical scrutiny than any other leadership theory (Barling, Christie, & Hoption, 2010; Bono & Judge, 2004). Transformational leadership is commonly understood as a reflection of four factors (Bass & Riggio, 2006). *Idealized influence* requires leaders to be role models with whom followers want to identify and emulate, and is characterized by high levels of charisma. *Inspirational motivation* involves articulating and communicating a clear and compelling vision of the future, and supporting followers as they pursue that vision. *Intellectually stimulating* leaders encourage innovation by challenging followers to think about problems and challenges in novel ways, and to question old assumptions. Finally, leaders

high in *individualized consideration* treat their followers as individuals, recognize their unique needs, abilities and aspirations, and work with them to develop their strengths.

While much has been learned about the positive effects of transformational leadership (Barling et al., 2010), less is known about its antecedents. Without discounting research focusing on predictors such as moral reasoning (Turner, Barling, Epitropaki, Butcher, & Milner, 2002), emotional intelligence (e.g., Barling et al., 2000), or peer leadership (Bommer et al., 2004), the psychological effort required to enact transformational leadership justifies a closer examination of resource-based antecedents.

3.2. Resources as antecedents of transformational leadership

Enacting transformational leadership requires access to sufficient personal resources. For example, transformational leadership is associated with higher levels of positive affect (Walter & Bruch, 2007), optimism, hope and resiliency (Peterson et al., 2009), and self-confidence (Ross & Offermann, 1997) — all personal resources included within COR theory (e.g., Hobfoll, 2001). The need for leaders' resources becomes even more apparent when considering the nature of each of the four transformational dimensions. Charisma involves self-confidence (e.g., Klein & House, 1995), intellectual stimulation and individualized consideration require the belief that events are under one's control (Howell & Avolio, 1993), and inspirational motivation, idealized influence, and individualized consideration are related to emotional intelligence (Barling et al., 2000). Thus, personal resources are important to the enactment of transformational leadership.

Given this array of characteristics, COR theory suggests that much can be learned about the precursors of positive leadership not only by focusing on the personal resources that encourage positive social functioning, but also on what happens when these resources are threatened or absent. Accordingly, we investigate the influence of leaders' psychological resource depletion on transformational leadership, and in so doing, will provide a better understanding of what may help (or hinder) the enactment of this positive form of leadership.

Importantly, resource depletion may not only hinder the enactment of positive leadership, but may also influence negative leadership behaviors. Thus, we also investigate leaders' psychological resource depletion as an antecedent to abusive supervision.

3.3. Abusive supervision

Abusive supervision reflects the extent to which supervisors engage in ongoing displays of verbal and non-verbal (but not physical) hostility (Tepper, 2000), such as public ridicule, inappropriate assignment of blame, rudeness, and/or the invasion of privacy (Tepper et al., 2006). While research has demonstrated the broad range of negative consequences associated with abusive supervision (see Tepper, 2007), very little research has focused on its antecedents. Of the scant evidence available, relational dynamics (i.e. contract breach, organizational injustice, perceived leader–subordinate dissimilarity) predict abusive supervision, as do certain leader and subordinate characteristics (e.g., Hoobler & Brass, 2006; Tepper et al., 2006, 2011).

3.4. Resources as antecedents of abusive supervision

Abusive supervision may also reflect leadership behaviors that ensue when resources are depleted. More specifically, a failure in self-regulation is offered as a potential explanation for destructive leadership behavior. According to Wang et al. (2010), when leaders' resources are drained, their ability to regulate affective reactions and behaviors is compromised. While empirical research on the antecedents of abusive supervision are scant, research showing that depleted self-control impairs the ability to engage in appropriate social interactions (e.g., Von Hippel & Gonsalkorale, 2005), and that depletion of sleep (Kahn-Greene, Lipizzi, Conrad, Kamimori, & Killgore, 2006) and executive functioning resources (DeWall, Baumeister, Stillman, & Gailliot, 2007) predict aggressive behavior, further point to a role for resource depletion as an antecedent of abusive supervision. As such, COR theory provides a valuable opportunity for conceptualizing and investigating the precursors to this negative form of leadership. Moreover, by examining resource depletion as a precursor to abusive supervision, useful insights into what can be done to prevent or address this type of leadership in organizations can be obtained.

4. The depleted leader

It perhaps seems intuitive that psychologically healthy leaders will be better equipped to perform their duties, and perform them well. However, very little empirical research exists to support this assumption. We now turn our attention to three psychological indicators of resource depletion that we believe will a) limit the levels of transformational leadership engaged in by leaders and/or b) enhance the amount of abusive supervision enacted by leaders. In this study, we focus on leaders' depressive symptoms, anxiety and workplace alcohol consumption.

4.1. Depressive symptoms

Studies among community samples reveal that individuals who display indicators of depression (i.e., depressive symptomatology) experience social, physical and interpersonal dysfunction. This should not be surprising given the manifestations of depressive symptomatology: Problems with sleep, feelings of sadness, loss of interest in activities, difficulty making decisions, trouble thinking or concentrating, feelings of worthlessness, and having a pessimistic outlook about the future (Judd, Rapaport, Paulus, & Brown, 1994;

Kohout, Berkman, Evans, & Cornoni-Huntley, 1993; Rapaport et al., 2002). When compared to asymptomatic individuals, those with depressive symptoms report significantly more health service use (e.g., Johnson, Weissman, & Klerman, 1992), need for social assistance (e.g., Judd, Akiskal, & Paulus, 1997), and higher levels of household and financial strain (e.g., Judd, Paulus, Wells, & Rapaport, 1996). Depressive symptoms have also been linked with job-related problems such as higher absenteeism (Hardy, Woods, & Wall, 2003) and poorer job performance (Judd et al., 1996).

From the perspective of the current study, there are meaningful similarities between many depressive symptoms and the personal resources inherent in COR theory. For example, sleep, hope, and motivation are critical resources linked to positive social functioning (Gallagher & Lopez, 2009; Hobfoll, 1998, 2001, 2002), and are negatively associated with depressive symptomatology. Similarly, possessing a sense of meaning or purpose, optimism, and self-esteem (Hobfoll, 1998, 2001; Hobfoll & Freedy, 1993; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009) are seemingly absent among those struggling with depressive symptoms. Thus, we argue that a leader experiencing affective and cognitive depressive symptoms can be characterized as being in a state of psychological resource depletion.

4.2. Anxiety

Like depressive symptoms, excess anxiety represents a threat to psychological well-being and can compromise social and interpersonal functioning. Individuals who manifest indicators of anxiety experience excessive worry about everyday life issues (e.g., health, safety, finances, work, relationships), likely as a result of information-processing biases that lead them to pay greater attention to threatening stimuli, to have biased memory for threatening events, and to interpret ambiguous stimuli as ominous (Mogg & Bradley, 2005; Rowa & Antony, 2008). All of these biases ultimately lead anxious people to catastrophize otherwise positive aspects of their lives (Davey & Levy, 1998). Furthermore, meaningful physiological or psychological symptoms accompany these worries, including disrupted sleep and fatigue, feeling restless or on edge, difficulties concentrating, muscle tension, irritability, and increased negative thought content (Rowa & Antony, 2008).

Again, we suggest that the affective, cognitive and physiological symptoms associated with anxiousness reflect a state of resource depletion. For example, excessive worry dampens hope and optimism, both of which are key resources for positive well-being and social functioning (Gallagher & Lopez, 2009). Similarly, the resilience afforded by resources such as self-efficacy (Bandura, 1997) and internal locus of control (Rotter, 1966; Twenge, Zhang, & Im, 2004) are absent among anxious individuals who experience their worries as personal inadequacies (Davey & Levy, 1998), and tend to view events from a negative problem orientation (Belzer, D'Zurilla, & Maydeu-Olivares, 2002). Further, while COR holds that social support is a primary resource (e.g., Hobfoll, 2001, 2002), anxiety is associated with marital and familial relationship dysfunction, and friendship scarcity (Ben-Noun, 1998; Whisman, Sheldon, & Goering, 2000). As a result, we suggest that anxiety will be characteristic of a state of resource depletion.

4.3. Workplace alcohol consumption

Alcohol is one of the most widely used psychoactive substances, influencing mood, cognitive functioning and reactive performance (Frone, 2013). Research on the effects of alcohol use in general is extensive, with scholars seeking to understand the nature, antecedents and consequences of drinking behavior (Frone, 2013; Trice & Roman, 1978). Examining *workplace* alcohol consumption more specifically, involves a situational and temporal approach that looks at when and where employees use alcohol (i.e. within two hours of starting one's work shift, during a lunch break, during other breaks throughout the work shift, or during work hours; Frone, 2008). To date, studies have shown that employees high in negative affectivity and impulsivity (Cooper, Frone, Russell, & Mudar, 1995; Frone, 2003), those experiencing work overload and job insecurity (Frone, 2008), or those who believe that alcohol can relieve job stress and improve performance (Grunberg, Moore, Anderson-Connolly, & Greenberg, 1999; Guppy & Marsden, 1997) are more likely to engage in workplace alcohol consumption.

Research exploring the outcomes associated with employee drinking behavior is important, especially given studies showing that even low levels of workplace alcohol consumption can lead to psychological (e.g., daydreaming, reduced effort) and physical (e.g., taking longer rest breaks, falling asleep at work) work withdrawal (Lehman & Simpson, 1992), absenteeism (McFarlin & Fals-Stewart, 2002), workplace aggression (McFarlin, Fals-Stewart, Major, & Justice, 2001), interpersonal conflict (Ames, Grube, & Moore, 1997), and workplace injuries (Frone, 1998). Despite these findings on workplace alcohol consumption, very little research has examined leaders' workplace alcohol use. This is an important omission: Frone's (2006) nationally representative sample of 2805 employed adults in the U.S. showed significantly higher levels of alcohol consumption at work for those in management positions compared to those lower in the organizational hierarchy. Further, in one of the few studies that explored alcohol consumption among managers, Streufert et al. (1994) showed that strategy and planning were negatively affected in a management simulation task at both .05 and .10 blood alcohol levels (BAL).

While varying amounts of alcohol influence people differently, people can experience a range of psychological and cognitive outcomes at low to medium levels of consumption (0.01% to 0.08% BAL; Frone, 2013), such as relaxation, reduced inhibition, greater impairment of inhibitory control, and more extreme behavioral responses. At higher levels (0.08 to .12% BAL), depressive symptoms, reduced sociability, sedation and unconsciousness can ensue (Frone, 2013). From a resource perspective, two consequences of alcohol consumption are particularly relevant, and would be antithetical to high quality leadership. First, even at low levels, alcohol consumption is associated with diminished cognitive ability. For example, the ability to multi-task in situations in which the complexity of information processing increases is compromised when alcohol is consumed (e.g., Steele & Josephs,

1988) as are decision-making abilities under moderate levels of alcohol consumption (George, Rogers, & Duka, 2005). Second, researchers have consistently shown that even at low to moderate doses, alcohol diminishes the ability to inhibit aggressive responses (Bushman & Cooper, 1990). As a result, we posit that the psychological and cognitive impact of workplace alcohol consumption – even at modest levels – will deplete leaders' personal resources.

5. Depleted resources and leadership behavior

A conservation of resources approach to leadership suggests that leaders' symptoms of depression, anxiety, or workplace alcohol consumption harm leadership behaviors. Within the organizational context, enacting high quality leadership requires the investment of considerable personal resources. However, two central tenets of COR theory are that (a) expending resources on any task takes a toll that potentially leads to resource depletion (Baumeister, Bratslavsky, Muraven, & Tice, 1998), and (b) individuals are motivated to avoid resource loss. Accordingly, leaders in a state of resource depletion, whether through depressive symptoms, anxiety or alcohol consumption, would be hesitant or unable to expend the considerable personal resources required for enacting transformational leadership. Instead, such leaders may prefer a defensive resource posture (Hobfoll, 2001; Schönpflug, 1985). For example, rather than exerting the cognitive and emotional resources (Barling et al., 2000; Howell & Avolio, 1993) necessary to interact with, and invest in followers in idiosyncratic ways (i.e. *individualized consideration*), depleted leaders may take a less effortful and more resource defensive route, treating their followers in a homogeneous and standardized manner. Likewise, it may prove difficult for a leader to exert what is necessary to be an inspiring role model for followers, or behave charismatically (i.e. *idealized influence*) when he or she lacks positive affect, a sense of personal worth, sound judgment and/or the ability to make decisions (e.g., George et al., 2005; Klein & House, 1995; Walter & Bruch, 2007). In essence, in an effort to avoid further resource loss, depleted leaders will engage in less transformational leadership behavior. Thus, we predict that the depressive or anxious symptoms, and workplace alcohol consumption, will be negatively associated with transformational leadership.

Hypothesis 1a. Leaders' symptoms of depression will be negatively associated with transformational leadership.

Hypothesis 1b. Leaders' symptoms of anxiety will be negatively associated with transformational leadership.

Hypothesis 1c. Leaders' workplace alcohol consumption will be negatively associated with transformational leadership.

Similarly, we predict that symptoms of anxiety and depression, and workplace alcohol consumption will be associated with negative manifestations of leadership, specifically, abusive supervision. When leaders' personal resources and internal strengths are exhausted, their ability to control affective reactions and behave in socially appropriate ways is compromised. Indeed, Wang et al. (2010) note that some destructive leadership behavior (for example, displaying anger directed towards followers or engaging in acts of verbal aggression) may be the result of an unintentional process rooted in the inability to self-regulate. More specifically, they argue that leaders' resources are central to their ability to control behavior and emotions, and when depleted, leave leaders susceptible to counterproductive and damaging interactions with subordinates. Self-control has indeed been shown to be a limited resource that can become depleted (i.e. Baumeister et al., 1998; Hedgcock, Vohs, & Rao, 2012), resulting in increased aggressive responses (Stucke & Baumeister, 2006) and destructive forms of conflict resolution (Finkel & Campbell, 2001).

Further, in line with research documenting a link between negative affective states and aggression (e.g., Berkowitz, 1990), many of the indicators of resource depletion inherent in symptoms of depression and anxiety (e.g., negative thoughts, irritability, pessimism, tendency to interpret ambiguous stimuli as threatening) could also trigger the non-physical hostility that characterizes abusive supervision. For instance, rather than privately addressing subordinates' mistakes in a constructive empathetic manner, depleted leaders with high levels of negative affect and a reduced ability to engage in self-regulation, may instead respond to subordinate errors with public ridicule and disparagement (Tepper, 2007). Similarly, consistent with the link between alcohol consumption and psychological and physical workplace aggression, interpersonal conflict, and reduced inhibitions (see Frone, 2013), leaders consuming even low levels of alcohol at work would be more likely to engage in hostile, non-physical interactions (e.g., rudeness, shouting, coercion) with their subordinates. Taken together, leaders experiencing symptoms of depression or anxiety, or engaging in workplace alcohol consumption will be prone to abusive behavior.

Hypothesis 2a. Leaders' depressive symptoms will be positively associated with abusive supervision.

Hypothesis 2b. Leaders' anxiety symptoms will be positively associated with abusive supervision.

Hypothesis 2c. Leaders' workplace alcohol consumption will be positively associated with abusive supervision.

While the independent experience of either anxiety, depressive symptoms, or workplace alcohol consumption could lead to less transformational leadership and/or more abusive supervision, the simultaneous experience of two or more forms of resource depletion may exacerbate these negative effects on leadership. As resources are themselves the primary defense against resource loss (Hobfoll, 2001), leaders who are experiencing resource depletion from anxiety, depressive symptoms, or alcohol consumption are increasingly vulnerable to the experience of further depletion. For example, the strain experienced by leaders as a result of depressive symptoms weakens psychological reserves, rendering them more vulnerable to the effects of further resource loss from anxiety. Depressive symptoms themselves may thus not only adversely impact leadership, but in combination with anxiety have an even greater negative effect on leadership behaviors. Raver and Nishii (2010) similarly discuss the

exacerbation of multiple stressors. According to these authors, stressful conditions require people to draw from their energy reserves to maintain positive functioning, which in turn, constrain one's ability to respond and adapt to additional stressors. As individuals reach their psychological breaking point, the costs to well-being are exponentially greater, compared to cases where only one form of stress is experienced independently (Raver & Nishii, 2010).

Previous research has documented how resource loss is often experienced in multiple ways or areas simultaneously (e.g., Kaniasty & Norris, 1993; Lane & Hobfoll, 1992; Neveu, 2007; Wells, Hobfoll, & Lavin, 1999), and can ultimately result in damaging and powerful loss spirals where those in states of resource loss are more vulnerable to additional and accelerated resource depletion (Hobfoll, 2001). The co-occurrence of resource threats pertinent to this study is indeed likely. For example, anxiety and depression frequently co-occur (e.g., Belzer & Schneier, 2004; Gorman, 1997; Spitzer, Kreonke, Williams, & Lowe, 2006), and both anxiety (e.g. Grant et al., 2006; Swendsen et al., 1998) and depression (e.g. Gilman & Abraham, 2001; Grant & Harford, 1995) have been found to co-exist with alcohol consumption.

As one's capacity for positive functioning continues to diminish as the extent of resource depletion increases (e.g. Freedy & Hobfoll, 1994; Shirom, 2003; Wells et al., 1999) it follows that the negative effect of resource depletion on transformational leadership will be exacerbated among leaders experiencing anxiety, depressive symptoms, and/or workplace alcohol use concurrently. Similarly, leaders experiencing two or more of these forms of resource depletion simultaneously, will also be more prone to abusive supervision. In essence, in line with the concept of resource loss spirals described by Hobfoll (2001), we predict an exacerbating effect for leaders' resource depletion — when leaders experience anxiety, depressive symptoms and/or workplace alcohol consumption simultaneously, resource depletors will interact to decrease the likelihood of transformational leadership and increase the likelihood that leaders engage in abusive supervision

Hypothesis 3a. Multiple forms of resource depletion will interact to exacerbate the negative impact of resource depletion on transformational leadership.

Hypothesis 3b. Multiple forms of resource depletion will interact to exacerbate the positive impact of resource depletion on abusive supervision.

6. Method

6.1. Recruitment and participants

Leaders and their followers were recruited in the United States and Canada using StudyResponse, an online survey system based at Syracuse University (The StudyResponse Project, 2004) that has previously been used as a recruiting source for participant pairs in the study of leadership (e.g., Wang & Cheng, 2010). StudyResponse identified and matched leaders and followers that had volunteered to participate in survey research together. In return for participation, each individual received a $5 Amazon.com gift certificate. In all cases, participation was confidential. A total of 172 pairs of leaders and direct reports completed online questionnaires. Leaders were asked to rate their depressive symptoms, anxiety symptoms, and workplace alcohol consumption, as well as their age and gender. Followers were asked to rate their leaders' transformational leadership and abusive supervision.

Leaders' average age was 36 years old ($SD = 8.30$; 53% males); 27% had a graduate degree, 16% a university degree, 50% a college diploma, and 7% had high school diplomas or had completed some high school. On average, subordinates were 37 years old ($SD = 10.63$; 60% males), and had received marginally less formal education (graduate degree = 22%, university degree = 19%, college diploma = 48%, high school diploma or some high school = 12%).

6.2. Measures

Leaders provided data on their own depressive symptoms, anxiety, and alcohol consumption at work. *Depressive symptoms* were assessed using the 11-item Centre for Epidemiological Studies — Depression (CES-D) Symptoms Index 11 (Kahout, Berkman, Evans, & Cornono-Huntley, 1993), which assesses how participants have felt in the past month (e.g., "I felt like I could not shake off the blues"). Items are scored on a 4-point Likert scale from 1 (not at all — Less than 1 day in the last week) to 4 (most or all of the time — 5–7 days in the last week). *Anxiety* was assessed with the 7-item General Anxiety Disorder-7 Scale (Spitzer et al., 2006), with participants reporting how often they felt anxiety-related symptoms in the past month (e.g., "feeling nervous, anxious, or on edge"). Items are scored on a 4-point Likert scale from 0 (not at all) to 3 (nearly every day). *Alcohol consumption* was assessed using Frone's (2006) questionnaire that asks participants to indicate the frequency of consumption and number of drinks consumed during specific work times (i.e. within two hours of beginning their work shift, during lunch break, while performing job duties) during the past month while at their current/primary job. *Demographic information* was gathered by asking leaders to indicate their gender (male/female) as well as their age in number of years.

Subordinates completed questionnaires on their leaders' transformational leadership and abusive supervision. Like others (Judge, LePine, & Rich, 2006; Liu, Zhu, & Yang, 2010), we used a shortened eight-item version of the Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1990). Subordinates indicated how often their leaders engaged in eight transformational leadership behaviors over the past month, on a scale from 0 (rarely or never) to 4 (very frequently, if not always). *Abusive supervision* was assessed using a 5-item version of Tepper's (2000) questionnaire. Shortened versions of the abusive supervision

scale have been validated and used by others (Johnson, Venus, Lanaj, Mao, & Chang, 2012; Mitchell & Ambrose, 2007). The measure asks subordinates to rate the extent to which one's supervisor engages in a number of abusive behaviors (e.g., "Tells me my thoughts or feelings are stupid") on a 5-point scale (0 = "I cannot remember him/her ever using this behavior with me," 4 = "He/she uses this behavior with me very often").

Finally, to enhance the validity of the study, we include various statistical controls to reduce the possibility of plausible, rival hypotheses. Given that females have been show to more readily demonstrate transformational leadership behaviors (Eagly, Johannesen-Schmidt, & Van Engen, 2003) and are less likely to engage in aggressive behaviors (Baron, Neuman, & Geddes, 1999) gender of the leader is included as a control variable. In addition, as younger employees are more likely to display aggressive behaviors (Baron et al., 1999), and leader age can moderate leader's ability to enact transformational leadership (Zacher, Rosing, & Frese, 2011), age of the leader is also included as a control variable.

7. Results

Descriptive statistics, intercorrelations and reliabilities for all study variables are presented in Table 1. All variables were centered prior to analysis, and leaders' age and gender were controlled for in each regression.

7.1. Main effects

7.1.1. Transformational leadership
Using multiple regression analyses, we first tested Hypotheses 1a, 1b, and 1c regarding the separate relationships between depressive symptoms, anxiety, workplace alcohol consumption, and transformational leadership behavior (see Table 2). As expected, in line with Hypothesis 1a, leaders' depressive symptoms were negatively related to transformational leadership (ß = −.389, p < .01; Model 1a). Consistent with Hypothesis 1b, anxiety was negatively related to transformational leadership (ß = −.227, p < .01; Model 2a). Finally, in support of Hypothesis 1c, leaders' workplace alcohol consumption was negatively related to transformational leadership (ß = −.150, p < .01; Model 3a). Thus, the results revealed separate main effects for depressive symptoms, anxiety, and workplace alcohol consumption on transformational leadership behavior, providing full support for Hypotheses 1a, 1b, and 1c.

7.1.2. Abusive supervision
We next tested Hypotheses 2a, 2b, and 2c regarding the relationships between depressive symptoms, anxiety, workplace alcohol consumption, and abusive supervision (see Table 2). In support of Hypothesis 2a, leaders' depressive symptoms were positively related to abusive supervision (ß = .276, p < .01; Model 1b). Similarly Hypothesis 2b was supported as anxiety was positively related to abusive supervision (ß = .218, p < .01, Model 2b). Finally, consistent with Hypothesis 2c, leaders' workplace alcohol consumption was positively related to abusive supervision (ß = .122, p < .01, Model 3b). Thus, full support for Hypotheses 2a, 2b, and 2c was obtained.

7.2. Exacerbating effects

Hypothesis 3a and 3b proposed an exacerbating effect for resource depletion on transformational leadership and abusive supervision respectively. These hypotheses were tested by inspecting each of the 2-way interactions on the leadership behaviors (i.e., depressive symptoms × anxiety; depressive symptoms × workplace alcohol consumption; anxiety × workplace alcohol consumption, see Table 2), and were plotted based on recommendations of Aiken and West (1991).

7.2.1. Transformational leadership
Examining depressive symptoms and workplace alcohol consumption concurrently on transformational leadership, a significant interaction emerged, (ß = .253, p < .01; see Fig. 1). A simple slope analysis revealed that the relationship between depressive

Table 1
Descriptive statistics and correlations for all study variables (*N* = 172 leader-follower pairs).

Variables	*M*	*SD*	1	2	3	4	5	6	7
1. Leader age	36.10	8.30							
2. Leader gender	0.54	0.50	−.13						
3. Depressive symptoms	1.84	0.69	−.29[**]	.28[**]	**.91**				
4. Anxiety	1.84	0.90	−.20[*]	.22[**]	.72[**]	**.96**			
5. Alcohol at work	0.72	1.38	−.24[**]	.30[**]	.19[*]	25[**]	**.95**		
6. Transformational leadership	2.62	0.88	.20[**]	−.23[**]	−.39[**]	−.31[**]	−.31[**]	**.93**	
7. Abusive supervision	0.34	0.57	−.36[**]	.37[**]	.47[**]	.43[**]	.41[**]	−.49[**]	**.96**

Gender coded as follows: 0 = female; 1 = male in all analyses.
Internal consistency (α) data appear in boldface on the diagonal.
  * p < .05.
 ** p < .01.

Table 2
Regression coefficients of leaders' psychological distress on transformational leadership and abusive supervision.

	Transformational leadership			Abusive supervision		
	B	ΔF	ΔR^2	B	ΔF	ΔR^2
Model 1A & 1B						
Step 1		10.314**	.112		25.440**	.250
Leader gender	−.436**			.396**		
Leader age	.020**			−.021**		
Step 2		16.280**	.081		20.161**	.088
Leader depression	−.389**			.276**		
Total model R²			.193			.337
Model 2A & 2B						
Step 1		9.271**	.102		23.654**	.239
Leader gender	−.405**			.368**		
Leader age	.019**			.020**		
Step 2		9.859**	.052		21.999**	.097
Leader anxiety	−.227**			.218**		
Total model R²			.154			.336
Model 3A & 3B						
Step 1		7.818**	.085		24.316**	.239
Leader gender	−.371**			.382**		
Leader age	.018**			−.021**		
Step 2		9.363**	.048		11.794**	.054
Leader workplace alcohol consumption (WAC)	−.150**			.122**		
Total model R²			.133			.293
Model 4A & 4B						
Step 1		9.237**	.103		23.654**	.239
Leader gender	−.410**			.368**		
Leader age	.019**			−.020**		
Step 2		7.590**	.113		14.484**	.173
Leader depression	−.248			.810		
Leader anxiety	−.097			.181**		
Leader WAC	−.132**			.135**		
Step 3		6.758**	.091		4.117**	.046
Leader depression × Leader anxiety	.410**			.189**		
Leader depression × Leader WAC	−.253**			−.017		
Leader anxiety × Leader WAC	.144**			.055		
Step 4		.470	.002		2.100	.008
Leader depression × Leader anxiety × Leader WAC	−.064			−.086		
Total model R²			.309			.465

* p < .05.
** p < .01.

symptoms and transformational leadership was not significant when alcohol consumption was low (ß = −.123, ns) but was significant when alcohol consumption was at the mean (ß = −.344; p < .05) or high (ß = −.565, p < .01). This interaction provides support for the resource depletion exacerbation effect predicted in Hypothesis 3a.

In contrast, while a significant interaction emerged for depressive symptoms and anxiety on transformational leadership (ß = .410, p < . 01; see Fig. 2), a simple slope analysis revealed that the relationship between depressive symptoms and transformational leadership was significant when anxiety was low (ß = −.756, p < .01) and at the mean (ß = −.344, p < .05)
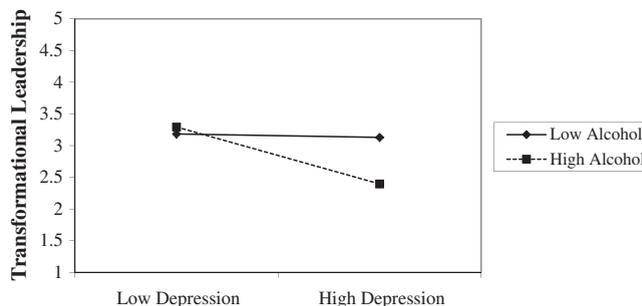

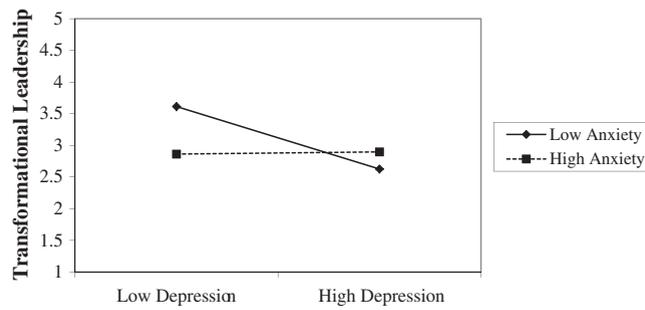Fig. 1. Depression and workplace alcohol consumption on transformational leadership.

Fig. 2. Depression and anxiety on transformational leadership.

but was not significant when anxiety was high (ß = .068, ns). This interaction provides no support for an exacerbating effect on transformational leadership.

Similarly, while a significant interaction emerged for anxiety and workplace alcohol consumption on transformational leadership (ß = .144, p < .01; see Fig. 3), a simple slope analysis revealed that the relationship between workplace alcohol consumption and transformational leadership was significant when anxiety was low (ß = −.273, p < .01) and at the mean (ß = −.113, p < .05) but was not significant when anxiety was high (ß = .047, ns). Once again, this interaction does not support an exacerbating effect.

Finally, we tested the effects of all three resource depletors on transformational leadership simultaneously. The results of this interaction were non-significant. Thus, when taken together, as only the interaction between workplace alcohol consumption and depressive symptoms provided support for an exacerbating effect on transformational leadership, partial support for Hypothesis 3a was found.

7.2.2. Abusive supervision

Hypothesis 3b predicted an exacerbating effect for the simultaneous experience of different forms of resource depletion on abusive supervision. The significant interaction between depressive symptoms and anxiety on abusive supervision (ß = .189, p < .01) was plotted (see Fig. 4). A simple slope analysis revealed that the relationship between depressive symptoms and abusive supervision was not significant when anxiety was low (ß = .017, ns) but was significant when anxiety was at the mean (ß = .192; p < .01) or high (ß = .367, p < .01). However, as there were no other significant interactions (i.e., depressive symptoms × workplace
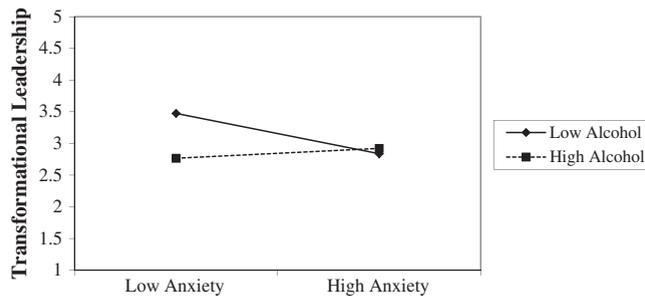

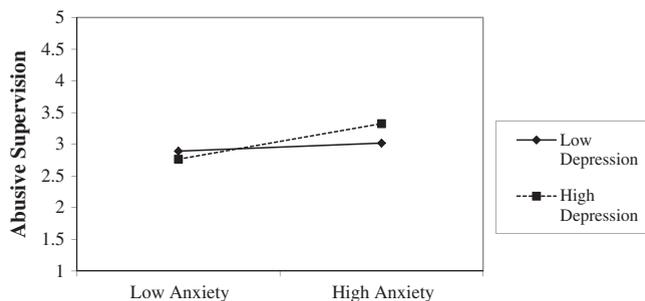Fig. 3. Anxiety and workplace alcohol consumption on transformational leadership.

Fig. 4. Anxiety and depression on abusive supervision.

alcohol consumption; anxiety × workplace alcohol consumption; depressive symptoms × anxiety × workplace alcohol consumption) for abusive supervision, this interaction provides partial support Hypothesis 3b.

8. Discussion

The results of our study provide consistent support for the notion that leaders' resource depletion predicts their leadership behaviors. Leaders' depressive symptoms, anxiety, and workplace alcohol consumption were all independently negatively related to transformational leadership. Similarly, these three states of resource depletion were all positively related to the enactment of abusive supervision. As such, our results support the idea that leaders' personal resources are critical to effective leadership.

Furthermore, some support for the exacerbating effects of multiple forms of resource depletion was found. Transformational leadership was lower in the presence of both high depressive symptoms and high workplace alcohol consumption. Similarly, abusive supervision was highest when both depressive symptoms and anxiety were high. Thus, some support for the notion that experiencing multiple resource drains simultaneously, can hinder effective leadership was found.

It should be noted that additional significant interactions in the transformational leadership model were found, and thus warrant further consideration. More specifically, high levels of anxiety led to consistently low levels of transformational leadership, regardless of leaders' depressive symptoms and levels of workplace alcohol use. In other words, when it comes to anxiety, additional forms of resource depletion will not exacerbate its negative impact. Raver and Nishii (2010) found a similar "inuring" effect in their research on the simultaneous experience of multiple forms of workplace harassment. These researchers maintain that when faced with multiple stressors, individuals may become habituated to their sub-optimal state, and as such, when additional stressors are encountered, only a minimal change (or no change) in strain outcomes is experienced. In essence, these findings may suggest that leaders experiencing anxiety become accustomed to the challenges associated with this form of resource loss, and as such, do not experience further declines in transformational leadership when they encounter depressive symptoms and/or workplace alcohol consumption. As such an effect was not found in any other case, future research should consider what it is about anxiety that creates this inuring effect for transformational leadership.

8.1. Theoretical implications

A primary contribution of this research is the conceptualization and testing of leaders' resource depletion as an antecedent to leadership behavior. While COR theory has been studied extensively within the stress literature, and increasingly within organizational research more broadly, to date, we are among a few (e.g., Bernas & Major, 2000; Carlson et al., 2012; Chi & Liang, 2013; Wang et al., 2010), to apply this theoretical lens to leadership. This may be an important omission as our results suggest that resources can play an important role in predicting effective leadership. Based on our findings, we suggest that the COR theory offers a promising opportunity for understanding why leaders' personal resources will predict the quality of their leadership behaviors.

Furthermore, our findings add to the literature by revealing several antecedents to transformational leadership (e.g. Barling et al., 2000; Bommer et al., 2004; Turner et al., 2002) and abusive supervision (e.g. Hoobler & Brass, 2006; Tepper et al., 2006, 2011). Our work suggests that the depletion of leader's psychological well-being more generally, and the experience of depressive symptoms, anxiety, and workplace alcohol consumption specifically, can inhibit transformational leadership behaviors and minimize leader's ability to refrain from the enactment of abusive supervision. Thus further insight into the nature of these two important organizational phenomena is achieved. Moreover, by examining the interactive nature of these resource depletors, additional theoretical insights concerning the predictors of leadership behavior are gleaned. Our findings suggest that there is merit in studying the co-occurrence of various antecedents to leadership – be they personal resource predictors (as was the case in this study), contextual factors, or other individual-level precursors – and that multiple variables may in fact interact to exacerbate (or perhaps mitigate) the effects of any independent predictor. Taken together, these results open up possibilities for further theorizing about what other personal resources may be necessary for effective leadership, and how various individual and contextual factors may interact with such resources (or lack thereof) to produce leadership outcomes. By underscoring the importance of resources to the leadership context, this study also sets the stage for additional empirical research into the resource-based antecedents of positive as well as more destructive forms of leadership.

8.2. Practical implications

This research offers important implications for leaders and organizations alike. From a leadership standpoint, our findings suggest that personal resources are an important part of effective leadership. While leaders are often focused on facilitating conditions that encourage follower well-being, they may not always consider their own resources or state of psychological health, perhaps for fear of appearing weak or ill-equipped to perform their role. These findings suggest that it is essential for leaders to be mindful of their own well-being, and to do what they can to bolster their personal resources, or seek aide in cases where resources have become depleted.

From an organizational perspective, the link between leaders' personal resource depletion and positive and negative forms of leadership emphasizes the need for organizational interventions and initiatives that psychologically bolster leaders, and support them in their complex and demanding responsibilities. Organizations must not only take responsibility for communicating the importance of leaders' well-being, but also provide resources such as employee assistance programs or psychological counseling

to all employees. Additionally, given the importance of resource gain to those who are depleted (Hobfoll, 2001), organizations should foster the conditions necessary for resource acquisition. For example, organizations can ensure that leaders are given sufficient instrumental resources such as time, training, and supplies. In so doing, organizations can be certain that leaders are equipped with resources that not only help them to perform their roles, but may also help buffer the negative effects produced by psychological resource depletion.

8.3. Limitations and future research

Despite these findings, several limitations warrant attention and future research. First, while the approach used in this study whereby employees' provide ratings of their leaders' behavior, and leaders' provide ratings of their own psychological depletion, excludes the possibility of common method variance, our data are cross-sectional limiting any causal inferences. For example, it remains possible that engaging in abusive supervision results in greater levels of worry, discontentment and sadness, as a result of low quality subordinate interactions. However, given the significant personal resources involved in enacting high quality leadership (Parry, 2011), and findings suggesting that resource depletion is associated with negative and destructive behaviors, our hypothesized causal ordering remains plausible. Nonetheless, future research should replicate these findings with a longitudinal methodology. In addition, as resources are continuously changing (Hobfoll, 2001), future research should examine how leadership behaviors may vary according to fluctuations in resources over time.

Second, while the goal of this study was to determine whether leaders' psychological resource loss predicts leadership behaviors, future research should expand upon this model to account for an even broader array of internal (i.e. personal) and external (i.e. contextual) resource predictors (i.e. Hobfoll, 1998), and more complex resource-based relationships. For example, future research might extend the focus from workplace alcohol consumption to alcohol consumption outside of work, alcohol impairment, or to licit and illicit drug use and impairment at work. In addition, sleep is a personal resource that is attracting increasing attention in organizational research (Barnes & Hollenbeck, 2009; Barnes & Wagner, 2009). Given the cognitive and emotional impairment associated with sleep deprivation (Harrison & Horne, 2000; Pilcher & Huffcutt, 1996), leaders who lack sleep may be depleted in much the same way as those experiencing symptoms of anxiety or depressive symptoms, or those who are under the influence of alcohol. These forms of resource depletion could be examined both independently and in co-occurrence with each other or with other resource depletors.

Research should also continue exploring supplementary resources as moderator variables (e.g., Kiewitz et al., 2012). For instance, future research could not only explore the effects of additional *personal characteristic resources* (e.g., resilience, optimism) on the relationship between depletion and leadership, but could also consider the role of external resources. What role might *condition resources* such as family, peer, or perceived organizational support play in buffering the negative effects of leaders' diminished psychological resources on leadership behavior? Alternatively, could weakened *object resources* (e.g., tangible resources connected to socio-economic status) or *energy resources* (e.g., access to information, opportunities for skill enhancement, availability of time) exacerbate the stress produced by leaders' depleted psychological resources, and in turn, further reduce positive leadership behaviors? While the psychological resources examined in this study indeed play a role in leaders' conduct, future research should expand the investigative lens to consider the ways that these discovered links are impacted by other resource categories identified in COR theory.

Last, while we focused on the relationship between resource depletion and transformational leadership and abusive supervision, other forms of leadership might be equally vulnerable to resource loss. For example, resource depletion may have detrimental effects on ethical leadership behaviors which require demanding qualities like working towards the greater good, and staying true to one's morals and ethical values (Barnes, Schaubroeck, Huth, & Ghumman, 2011). Further still, opting to conserve and protect what remaining resources they have left, cognitively and emotionally depleted leaders may become inactive and passive in their leadership role, suggesting that resource depletion may also be an antecedent of laissez faire leadership (Bass & Riggio, 2006).

9. Conclusion

In contrast to the abundance of research on the outcomes of leadership, the antecedents of positive and negative leadership behaviors have received much less empirical attention. Conceptualized within a conservation of resources framework, our findings show that leaders' resource depletion (manifested by depressive symptoms, anxiety, and workplace alcohol consumption) predicted lower levels of transformational leadership and higher levels abusive supervision either individually, or in some cases, concurrently. The results of this study thus emphasize the importance of focusing more on leaders' well-being and its impact on the quality of their leadership. While the need to replicate these findings with longitudinal data, and extend the focus to a broader range of leadership resources and behaviors remains, important conceptual, empirical and practical consequences for leadership research, and the link between leaders' psychological depletion and their leadership behaviors, have been identified.

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