

The Impact of Terrorism-induced Fear on Job Attitudes and Absenteeism Following a National Traumatic Event: Evidence from Pakistan

Omer Farooq Malik, Asif Shahzad, Talat Mahmood Kiyani,
Department of Management Sciences, COMSATS Institute of Information Technology, Islamabad, Pakistan

Vol. 11#09/2017

The IJCV provides a forum for scientific exchange and public dissemination of up-to-date scientific knowledge on conflict and violence. The IJCV is independent, peer reviewed, open access, and included in the Social Sciences Citation Index (SSCI) as well as other relevant databases (e.g., SCOPUS, EBSCO, ProQuest, DNB).

The topics on which we concentrate—conflict and violence—have always been central to various disciplines. Consequently, the journal encompasses contributions from a wide range of disciplines, including criminology, economics, education, ethnology, history, political science, psychology, social anthropology, sociology, the study of religions, and urban studies.

All articles are gathered in yearly volumes, identified by a DOI with article-wise pagination.

For more information please visit www.ijcv.org

Author Information: **Omer Farooq Malik**, Department of Management Sciences, COMSATS Institute of Information Technology, Islamabad, Pakistan

omer_farooq@comsats.edu.pk

Asif Shahzad, Department of Management Sciences, COMSATS Institute of Information Technology, Islamabad, Pakistan

asif_shahzad@comsats.edu.pk

Talat Mahmood Kiyani, Department of Management Sciences, COMSATS Institute of Information Technology, Islamabad, Pakistan

talat_mahmood@comsats.edu.pk

Suggested Citation: **APA:** Malik, O. F., Shahzad, A., Kiyani, T. M. (2017). The Impact of Terrorism-induced Fear on Job Attitudes and Absenteeism Following a National Traumatic Event: Evidence from Pakistan. *International Journal of Conflict and Violence*, 11, 1-18. doi: 10.4119/UNIBI/ijcv.595

Harvard: Malik, Omer Farooq, Shahzad, Asif, Kiyani, Talat Mahmood 2017. The Impact of Terrorism-induced Fear on Job Attitudes and Absenteeism Following a National Traumatic Event: Evidence from Pakistan. *International Journal of Conflict and Violence* 11:1-18. doi: 10.4119/UNIBI/ijcv.595



The Impact of Terrorism-induced Fear on Job Attitudes and Absenteeism Following a National Traumatic Event: Evidence from Pakistan

Omer Farooq Malik, Asif Shahzad, Talat Mahmood Kiyani,
Department of Management Sciences, COMSATS Institute of Information Technology, Islamabad, Pakistan®

The purpose of this paper is to analyze the impact of terrorism-induced fear on employee job attitudes and absenteeism in the weeks following the Army Public School attack in Peshawar, Pakistan. The paper is based on questionnaire data collected from 204 faculty members of public sector universities in Peshawar using snowball sampling technique. We applied partial least squares structural equation modeling (PLS-SEM) to analyze the entire impact path and found substantial support for our hypotheses. The results suggest that fear of terrorism affects absenteeism directly, as well as indirectly via job attitudes. Further, perceived organizational support is found to attenuate the negative relationship between fear of terrorism and job attitudes. Very few studies have examined the impact of societal variables such as national traumatic events on job-related outcomes.

Keywords: Terrorism, Fear, Job attitudes, Absenteeism, Perceived organizational support, Pakistan

1. Introduction

On September 1, 2004, Chechen rebels took more than one thousand hostages at a school in Beslan, Russian Federation. During the incident, 331 people were killed. The death toll, which included nearly 186 children, highlighted precisely how vulnerable educational institutions can be to terrorist attacks. On December 16, 2014, Tehrik-i-Taliban conducted a terrorist attack on the Army Public School in Peshawar, Pakistan, killing 141 people including 132 children. The attack immediately brought back memories of the Beslan school siege. On April 2, 2015, gunmen stormed the Garissa University College in Garissa, Kenya, killing 148 people. These are but a few exam-

ples of terrorist attacks on educational institutions. In the period 1970–2013, more than 3,400 terrorist attacks on educational institutions took place in 110 countries. These attacks comprised 2.7 percent of all terrorist attacks worldwide during this period (Miller 2014).

There are a number of reasons why terrorists might choose to deliberately target educational institutions over other civilian non-combatants (Bradford and Wilson 2013). For example, schools and other educational institutions represent “soft targets,” as relatively unguarded places where large numbers of people congregate at predictable times during the day, thus offering the potential for mass casualties (Molotch and McClain 2003). Another reason why terrorists might choose to

target educational institutions is that schools and schoolchildren represent powerful symbolic targets evoking a strong emotional reaction. Further, if a terrorist organization wishes to portray a government as unable to protect its citizens from terrorism, deliberately targeting children (arguably society's most vulnerable sub-sector) can provide a powerful manifestation of 'governmental incompetence' (Bradford and Wilson 2013; see also Perl 1997). Yet another reason why terrorists might choose to target educational institutions is the intense media coverage such an incident attracts, which provides a platform from which they can advance their cause, gain attention, amplify panic, and instigate fear (Perl 1997).

The research available on the psychological reaction of employees to terrorism was mostly generated following the 9/11 terrorist attacks and focused predominately on employees in the United States (for example, Ryan, West, and Carr 2003; Mainiero and Gibson 2003; Osinubi et al. 2008; Byron and Peterson 2002). Whereas the 9/11 studies evaluated the aftermath of a discrete occurrence, after which recuperation could follow undisturbed by further attacks, continuous terror may evoke different employee responses (Shalev et al. 2006). For example, continuous terror may cause a permanent change in the way one views the world, particularly the assumption that the world is a safe place (Ronen, Rahav, and Appel). Nevertheless, limited research has been conducted into the impact of terrorism-related stress on important personal and organizational outcomes such as job satisfaction, organizational commitment, and performance amongst employees working in organizations operating in an environment of ongoing terrorism and war (e.g., Reade and Lee 2012; Reade 2009; Bader and Berg 2013; Messarra and Karkoulian 2008). In one study, Kushnir, Fried, and Malkinson (2001) investigated the relationship between the emotional reaction to a national traumatic event and work absenteeism among working adults in Israel. They suggested that future studies should attempt to replicate this research in the context of other negative incidents associated with national political traumas. They also suggested research to examine the underlying cognitive processes that mediate the relation of national traumatic events with absenteeism. To fill this empirical gap, the present study

investigates the effect of fear of terrorism on employee absenteeism following a national traumatic event, but also examines the underlying cognitive processes that mediate the relationship between fear of terrorism and absenteeism. The study was conducted six weeks following the Army Public School attack (hereinafter: the APS attack) in Peshawar, Pakistan. Although educational institutions in Pakistan have been targeted by terrorists on several occasions, the APS attack instigated strong emotional reactions across the country as it was the deadliest terrorist attack in the country's history resulting in the death of 132 innocent schoolchildren ranging between eight and eighteen years of age. The attack manifested government's failure to provide security to the educational institutions. The widespread reactions of shock, fear, and disbelief suggested that the event caused a trauma at the national level, which diminished, at least temporarily, the level of subjective well-being (SWB) among large portions of the Pakistani population. SWB is one's cognitive and affective evaluation of one's life (Diener, Diener, and Diener 1995).

Using data from a survey of 204 faculty members of public sector universities in Peshawar, we empirically examine how fear of terrorism affects employee job attitudes and absenteeism. Drawing on affective events theory (AET; Weiss and Cropanzano 1996), in particular, we 1) examine the direct effect of fear of terrorism on overall job attitude; 2) examine the direct effect of overall job attitude on absenteeism; 3) examine the direct effect of fear of terrorism on absenteeism; 4) analyze the mediating effect of overall job attitude in the relationship between fear of terrorism and absenteeism; and 5) investigate whether perceived organizational support (POS) moderates the relationship between fear of terrorism and overall job attitude. The major shortcoming of previous research on absenteeism has been its almost exclusive focus on the individual and work-related factors, to the exclusion of societal and political events external to the individual and his/her specific work conditions (Kushnir, Fried, and Malkinson 2001). The study contributes to the literature by empirically examining the direct and indirect impact of terrorism-induced fear on absenteeism following a national traumatic event in a university setting, as well as by presenting a variety of findings on how to overcome problems associated with the psychological effects of terrorism.

This paper proceeds as follows: first, we present the conceptual framework and theoretical grounding before developing study hypotheses. We then explain our measures and discuss research methodology and data analysis techniques. After presenting the results, the paper proceeds with a discussion of our findings and offers managerial implications. Moreover, future research directions as well as study limitations are considered.

2. Theoretical Background and Hypotheses

2.1. Fear of Terrorism and Job Attitudes

In terrorism literature, there is a consensus that a major objective of the perpetrators of terrorist acts is to disrupt society by provoking intense fear (Hall et al. 2002; Shirom et al. 2008; Schmid and Jongman 1988). Aly and Green (2010, 269) noted that “the very use of terror over terrorism in the popular vernacular implies that fear, or terror, has become the most pervasive element of terrorism.” In general, research has focused almost exclusively on assessing stress reactions in response to discrete attacks such as 9/11 (for example, Schuster et al. 2001; Galea et al. 2002), with little attention paid to ongoing reactions and fears, and particularly how anticipating future terrorist attacks affects people’s functioning moving forward (Sinclair and LoCicero 2010; Shalev et al. 2006). Garofalo (1981, 841) defined fear (of crime) as “an emotional reaction characterized by a sense of danger and anxiety about physical harm,” and acknowledged that both actual and anticipated fear can produce behavioral responses. For the purpose of measuring the psychological impact of fearing future terrorism, Sinclair and LoCicero (2007) developed the terrorism catastrophizing scale (TCS), which consists of three subscales: rumination, magnification, and helplessness. According to Sinclair (2010), the concept of rumination has to do with the time and energy that is expended thinking about potential threat. Those who engage in magnification show a tendency to explode the threat in their minds and focus on the intense, low probability possibilities. Finally, in the context of extreme fear, helplessness sets in when people believe that there is nothing they can do to change this reality. Zimbardo and Kluger (2003) have characterized this psychological phe-

nomenon as a “pre-traumatic stress syndrome,” and are careful to differentiate between reactions to discrete past events (retrospective reactions) and fear of future devastating attacks (prospective reactions).

Scant research has considered the effect of non-job and external factors on employee job attitudes specifically in the context of ongoing terrorism (for example, Reade and Lee 2012; Reade 2009; Bader and Berg 2013). Eagly and Chaiken (1993, 1) defined attitude as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor.” Thus, the concept of evaluation is a unifying theme in attitudes research (Judge and Kammeyer-Mueller 2012). Defined as an attitude, job satisfaction is “a positive (or negative) evaluative judgment one makes about one’s job or job situation” (Weiss 2002, 175). Organizational commitment, on the other hand, reflects a psychological state linking an individual to the organization based on identification with the organization’s values and goals (Meyer and Allen 1991). In Meyer and Allen’s (1991) three-dimensional reconceptualization, affective commitment is the most strongly overlapping in constitutive and operational definition with attitude (Solinger, Olfen, and Roe 2008). Consistent with previous suggestions, it is reasonable to treat job satisfaction and affective commitment as specific reflections of a general attitude, as each is a fundamental evaluation of one’s job experiences (Harrison, Newman, and Roth 2006). Thus, in this study we conceptualize both job satisfaction and affective commitment as indicating an underlying overall job attitude.

Traditionally, social psychologists have argued that attitudes are composed of affective, cognitive, and behavioral components (Breckler 1984; Rosenberg, and Hovland 1960). The contemporary view, however, distinguishes an attitude from affect, cognition, and behavior, but regards them, on the one hand, as antecedents or information bases from which evaluative summaries are derived (Olson and Zanna 1993; Weiss 2002; Crites, Fabrigar, and Petty 1994) and on the other hand, as consequences or expressive responses (Eagly and Chaiken 1993; Zanna and Rempel 1988). Whereas there are several antecedents of job attitudes (Judge and Kammeyer-Mueller 2012; Mathieu and Zajac 1990), fear is definitely a factor influencing them (McShane and Von Glinow 2014). Terrorism-

induced fear can have adverse effects on job-related attitudes (Malik, Abdullah, and Uli 2014). For example, negative attitudes can be expressed toward the organization as an employer, who is held responsible for not securing the personal safety of employees (Mainiero and Gibson 2003; Bader and Berg 2013), toward the team, since terrorism leads to a decreased willingness to cultivate occupational networks (Kastenmüller et al. 2011), or toward a specific task one is performing, because other things in life become more important (Yum and Schenck-Hamlin 2005). Employees may develop what Kleinberg (2005, 204) defined as “Worker’s Block,” “an emotional, attitudinal, and relational disengagement from the job.” In a study among managers in Sri Lanka, Reade (2009) found that employee sensitivity to terrorism was negatively related to job satisfaction and organizational commitment. Moreover, Bader and Berg (2013) results showed that terrorism-induced stress caused negative attitudes toward the organization, the job/task itself, and the team. Nellis (2009, 336) in her study concluded that “fear is a powerful motivator for individuals’ behaviors and attitudes.” Thus, the following is derived:

Hypothesis 1: Fear of future terrorism has a direct negative effect on overall job attitude.

2.2. Job Attitudes and Absenteeism

Employee withdrawal from an organization can take many behavioral forms, including lateness, absenteeism, and turnover (Beehr and Gupta 1978). Many theories propose that people who dislike their jobs will avoid them, either permanently by quitting or temporarily by coming in late or being absent (Cohen and Golan 2007; Rosse 1988). Absence from work is a major problem for many organizations and their employees (Ybema, Smulders, and Bongers 2010; Jex and Britt 2008). Absenteeism has appropriately been called the “common cold” among human resource management problems (McShane 1984). Johns (2002, 437) defines absenteeism as “the failure to report for scheduled work.” Such absence disrupts the work processes, increases costs, leads to decreased productivity, and increases the workload among coworkers (which is likely to lead to conflict with the absent worker on his/her return) (Goodman and Atkin 1984; Mathis, Jackson,

and Valentine 2014; Nguyen, Groth, and Johnson 2016). Moreover, absence is an indirect measure of workers’ health and well-being (Griep et al. 2010; Ybema, Smulders, and Bongers 2010).

Hanisch and Hulin (1991) theorized that absenteeism and other withdrawal behaviors (such as lateness and turnover) reflect “invisible” attitudes such as job dissatisfaction, diminished organizational commitment, or an intention to quit. According to this view, an employee who is absent from work is consciously or unconsciously expressing negative attachment to the organization (Sagie 1998). On the other hand, employees who are highly satisfied with their jobs or strongly committed to the organization will avoid withdrawal behaviors and maintain continued attachment to work (Blau and Boal 1987; Punnett, Greenidge, and Ramsey 2007; Bakker et al. 2003; Harrison, Newman, and Roth 2006; Wegge et al. 2007). Consistent with this line of reasoning, several causal models (including Brooke 1986; Brooke and Price 1989; Gellatly 1995; Hanisch and Hulin 1991; Steers and Rhodes 1978; Meyer and Allen 1991) have included job-related attitudes among the determinants of employee absenteeism. As Harrison and Martocchio (1998, 320) noted that “employees with high levels of organizational commitment identify with a particular firm; they are less likely to miss work because it jeopardizes their membership in it.” Similarly, employees who are satisfied with various aspects of their jobs are less likely to be absent (McShane 1984). Accordingly, higher organizational commitment and job satisfaction imply lower employee absenteeism. Based on these arguments, we hypothesize:

Hypothesis 2: Overall job attitude has a direct negative effect on absenteeism.

2.3. Fear of Terrorism and Absenteeism

Absenteeism may also be a way of recuperating from stress when individuals do not possess the resources required to deal with demands in the workplace (Bakker et al. 2003). This explanation stipulates that absenteeism may be used as a coping mechanism to deal with job strain and that it is not simply a behavioral reaction to dissatisfaction (Johns 1997; Westman and Etzion 2001). Immediately following a terrorist attack, employee absenteeism may increase for a number of possible

reasons: First, employees may find it difficult to attend the workplace. For example, some people developed phobias that made it very difficult to be at work following the 9/11 terrorist attacks (Inness and Barling 2005). Second, employees who are physically injured may need to be absent from work in order to recover (Shamian et al. 2003). Third, employees may become sick due to a weakened immune system (Inness and Barling 2005). Fourth, if there are ongoing government alerts of the likelihood of further attacks, employees may find it difficult to return to work (Malik, Abdullah, and Uli 2014). Fifth, employees may show a desire to be connected to friends and family as they believe that the organization is unlikely to provide the needed connectedness (Mainiero and Gibson 2003). Lastly, employees' personal resources may be compromised, given the prevalence of various forms of psychological distress that tend to follow a terrorist attack. In the wake of a disaster such as terrorism, employees may be offering a great deal of social support to their colleagues (Kaniasty and Norris 1995). This may increase the possibility that they will experience emotional exhaustion or depression, and require respite from the workplace (Bakker et al. 2003).

Two studies illustrate how national traumatic events can affect employee absenteeism, both positing stress-related mechanisms. First, Byron and Peterson (2002) reported more absence following the 9/11 terrorist attacks among those who experienced more strain. Second, Kushnir, Fried, and Malkinson (2001) examined absenteeism following the assassination of Israeli Prime Minister Yitzhak Rabin. Their results showed that those who were more emotionally affected were more likely to be absent, particularly women and those who were pessimistic. While employees who are dissatisfied with their jobs and/or are less attached to their organizations may be more likely to be absent, we also expect that terrorism-induced fear will be positively related to employee absenteeism beyond the potential effects of job attitudes on absenteeism.

Hypothesis 3: Fear of future terrorism has a direct positive effect on absenteeism. Employees who experienced high levels of terrorism fears in the wake of the APS attack were more likely to be absent from work following this event.

2.4. Mediating Role of Job Attitudes

Affective events theory proposes that experiencing positive and negative work events leads to affective reactions that in turn lead to affect-driven, relatively spontaneous behaviors, as well as job attitudes (Weiss and Cropanzano 1996). Job attitudes influence judgment-driven behaviors, which are more calculated. Thus, affect-driven behaviors are direct responses to affective experiences, whereas judgment-driven behaviors are mediated by job attitudes. Supporting this assumption, Fisher (2002) found that turnover intentions were better predicted by job attitudes than by affective reactions (judgment-driven behavior), whereas altruism was better predicted by affective reactions than by job attitudes (affect-driven behavior). In the context of terrorism, Bader and Berg (2013) in their study found that the effect of terrorism-induced stress on performance was mediated by job attitudes. In a study by Mainiero and Gibson (2003), in which 5,860 respondents were surveyed three months following the events of 9/11, employees exhibited three emotional responses: fear, denial, and anger. Respondents reporting profound fear described themselves as "dumbfounded and scared," denial manifested as being dismissive of coworkers who claimed trauma as a result of 9/11 and expressing that it "should not affect" their working life, while anger was directed at employers who were perceived as being unsympathetic to the emotional ramifications. Such emotional reactions create conflict and reduced well-being in workplace relationships and lead to decreased satisfaction and increased stress resulting in absenteeism, turnover, and decreased productivity (Howie 2007). It is plausible to assume that if the employers are unresponsive to employees' emotional reactions following a terrorist attack, employees may become dissatisfied with their jobs and less committed to their organizations. In turn, negative job attitudes may trigger various behavioral withdrawal reactions such as absenteeism and turnover intentions. Based on these arguments, we hypothesize:

Hypothesis 4: Overall job attitude mediates the effect of fear of future terrorism on absenteeism.

2.5. Moderating Role of Perceived Organizational Support

Perceived organizational support (POS) refers to “employees’ beliefs concerning the extent to which the organization values their contribution and cares about their well-being” (Eisenberger et al. 1986, 500). When employees feel that the organization cares about them, they not only feel obligated to reciprocate by exerting greater effort on the job (Rhoades and Eisenberger 2002), but are also less stressed by external factors (Reade and Lee 2012; Bader and Berg 2014). Applied to the current research context of workers’ concerns about terrorism, POS can be expressed by assuring the workers that everything possible is done to protect them in the workplace. Support-seeking and/or acceptance of support offered by others has been shown to be a major coping mechanism following traumatic events (Murphy, Johnson, and Beaton 2004). For example, Ryan, West, and Carr (2003), in a study that found no significant change in employee attitudes following the 9/11 terrorist attacks, noted that the organization in question had responded actively to the event. The organization provided counselors to discuss employee fears and concerns, employees and supervisors were reminded about the organization’s employee assistance program, and special collections were organized for disaster relief. Byron and Peterson (2002) found that targeted organizational social support in the context of 9/11, (such as organizing a blood drive or a fundraiser for victims) was negatively related to job dissatisfaction. The authors noted that employees may expect their organizations to “step up to the plate,” even when a stressor is outside the domain of the organization. In the same vein, Reade and Lee (2012) found that as an internal organizational variable, POS can attenuate the negative effect of employee sensitivity to external stressors on organizational commitment. In general, social support applies a lever to the individual’s fear level; if the support is perceived as valuable, the negative effects of fear can be diminished (Inness and Barling 2005; Malik, Abdullah, and Uli 2014). Thus, we submit that POS in the form of recognition, trust, and care about employees’ well-being can play a similar buffering role between terrorism-induced fear and overall job attitude. Hence, we expect:

Hypothesis 5: POS positively moderates the negative relationship between fear of future terrorism and overall job attitude. Specifically, the negative relationship between fear of future terrorism and overall job attitude will be weaker (stronger) when POS is high (low).

Our hypotheses are summarized in Figure 1. The model draws on affective events theory and posits that fear of future terrorism affects absenteeism directly, as well as indirectly through overall job attitude. Further, we believe that internal organizational variable, POS, will moderate the relationship between terrorism-related fear and overall job attitude.

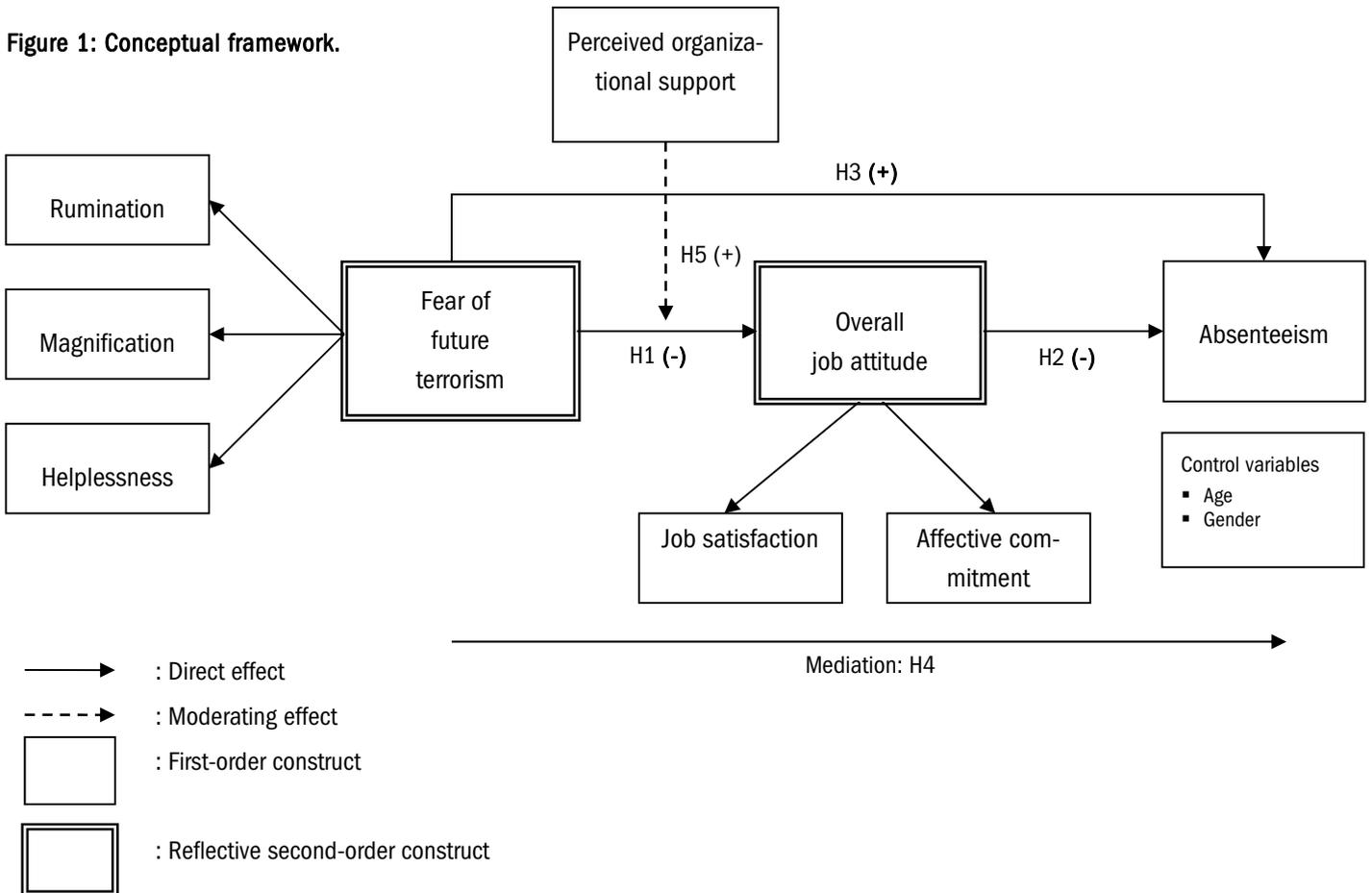
3. Methodology

3.1. Research Setting and Sample

In the “Global War on Terrorism,” Pakistan became not only a frontline fighter, but also a frontline target of terrorism. Pakistan is one of the countries most vulnerable to terrorist attacks, and terror has expanded to the whole population (Gibney et al. 2016). Between 2003 and 2017, nearly 21,763 civilians and 6,745 security force personnel were killed in terrorist attacks (South Asia Terrorism Portal 2017). Pakistan experienced 753 terrorist attacks on educational institutions between 1970 and 2013, 724 (96 percent) of which took place between 2004 and 2013. In the period 2004–2013, far more attacks on educational institutions took place in Pakistan than in the next three countries combined, that is, Thailand (213), Afghanistan (205), and Iraq (184) (Miller 2014).

The study was conducted in Peshawar, Pakistan. Peshawar is the capital of Khyber Pakhtunkhwa province, located in north-western Pakistan about 160 kilometers west of the federal capital Islamabad. Peshawar provided an appropriate research setting for two reasons. First, Peshawar has witnessed more terrorist attacks on educational institutions than any other city in Pakistan. Second, in Verisk Maplecroft’s new Global Alerts Dashboard (GAD), Peshawar is ranked as the seventh most dangerous city in the world. The study was conducted approximately six weeks following the APS attack and comprised faculty members of three public sector universities in Peshawar. The decision to wait six weeks after the event was taken after careful consideration of our need to wait long enough to obtain sufficient variation on our measures (such as

Figure 1: Conceptual framework.



absenteeism), but short enough for respondents to retrieve their memories of the event accurately. Data were collected cross-sectionally through the use of a structured questionnaire. The questionnaire was administered in English, which is the medium of instruction for all high schools and university education in Pakistan. Snowball sampling technique was used as a means to construct a sample of faculty members, as the survey included sensitive personal and organizational information (Birnacki and Waldorf 1981). In accordance with this sampling method, fifteen to twenty questionnaires were given to each of thirty initial respondents who were recruited through personal contacts of the research team. The initial respondents in turn distributed questionnaires and envelopes to their col-

leagues in the workplace. Questionnaires were returned anonymously either directly to the research team or via the initial respondents.

Of the initial 500 questionnaires sent out, returned questionnaires numbered 216, yielding a 43 percent response rate, and 204 usable questionnaires. With $n = 204$, our sample met the "10 times rule" standards and was large enough for meaningful analyses (Barclay, Higgins, and Thompson 1995). A majority ($n = 153$) of the respondents were men. The average age of respondents was 35 years, and the average organizational tenure was eight years (ranging from lecturer to professor). Respondents were well-educated, with all holding a bachelor's degree or higher.

3.2. Measures

3.2.1. Fear of Future Terrorism

Fear of future terrorism was specified as a second-order construct, consisting of three first-order constructs: rumination, magnification, and helplessness. The three first-order constructs were measured with thirteen items developed by Sinclair and LoCicero (2007). Sample items from the respective sub-scales include, "I frequently think about the threat of future terrorism," "I worry that the threat of terrorism will never end," and "there is little I can do to protect myself from terrorism." Respondents were instructed to recall their memories and report their level of agreement or disagreement with the statements during the week following the APS attack. Response formats were labeled from 1 = "strongly disagree" to 5 = "strongly agree." Composite reliability (CR) was 0.887 for rumination, 0.855 for magnification, 0.891 for helplessness, and 0.920 for overall fear of terrorism.

3.2.2. Overall Job Attitude

The study specified overall job attitude as a second-order construct, comprising two first-orders reflective constructs: job satisfaction and affective commitment. Job satisfaction was measured with five items developed by Brayfield and Rothe (1951). A sample item is "I feel fairly well satisfied with my present job." Affective commitment was measured with six items developed by Meyer, Allen, and Smith (1993). A sample item is "this organization has a great deal of personal meaning for me." Response formats were labeled from 1 = "strongly disagree" to 5 = "strongly agree." CR was 0.872 for job satisfaction, 0.935 for affective commitment, and 0.914 for overall job attitude.

3.2.3. Perceived Organizational Support

In order to gauge the POS, we used eight items from Eisenberger et al. (1986), five of them modified to the special challenges in a terrorism-endangered country (Bader 2015). Sample item is "the security measures are adequate to prevent future terrorist attacks." Response formats were labeled from 1 = "strongly disagree" to 5 = "strongly agree." CR for the scale was 0.905.

3.2.4. Absenteeism

Absenteeism was assessed using one item asking respondents how many days of scheduled work they had missed in the

one-month period following the APS attack due to concern about possible future terrorist attacks. While there are drawbacks to using self-report measures of absenteeism, Harrison and Shaffer (1994, 250), in a large-scale study of absenteeism, concluded that "self-reports are reasonable substitutes for other measures" under certain conditions, for example when data are collected anonymously. Moreover, evidence also indicates that self-reported absenteeism might serve as a valid measure in some correlational research designs (Johns and Miraglia 2015).

3.2.5. Demographic Control Variables

In order to mitigate potential sources of systematic errors, age and gender were included in the structural model as control variables. These two factors are posited to affect employee absenteeism (Muchinsky 1977).

4. Data Analysis

Partial least squares (PLS), specifically SmartPLS v. 3.2.5 (Ringle, Wende, and Becker 2015), was used to estimate both the measurement and the structural model. PLS has several strengths that made it appropriate for this study, including its soft distribution assumptions, its flexibility in modeling hierarchical component models, and its ability to handle complex models such as the combination of mediating and moderating effects (Chin 2010; Henseler, Ringle, and Sinkovics 2009; Astrachan, Patel, and Wanzenried 2014). We used bootstrapping (1,000 resamples) to generate standard errors and *t*-statistics to evaluate the statistical significance of the path coefficients. The second-order constructs, fear of future terrorism and overall job attitude, were approximated using the repeated indicators approach (Lohmöller 1989; Wold 1982; Wetzels, Odekerken-Schröder, and van Oppen 2009).

5. Results

5.1. Common Method Bias

The unmeasured latent methods factor test (Podsakoff et al. 2003) was performed to examine the impact of common method bias. We introduced a common method variance factor that included indicators for all principal constructs and calculated the degree to which each indicator's variance was explained by its principal construct (i.e., substantive variance)

and by the common method variance factor. The results showed that 30 of the 33 method factor loadings were insignificant and that the indicators' substantive variances were substantially greater than their method variances. This indicated that common method bias was not a significant problem with regard to our data.

5.2. Measurement Model Results

To check the properties of the measurement scales, we conducted confirmatory factor analysis (CFA) to assess reliability, convergent validity, and discriminant validity of the scales. As shown in Table 1, all the alpha coefficients, CR estimates, and average variance extracted (AVE) values were above their cut-off values of 0.7, 0.7, and 0.5, respectively (Hair et al. 2016; Henseler, Hubona, and Ray 2016). To assess convergent validity, factor loadings of scale items on their respective constructs were examined. All item loadings were above the threshold value of 0.7, except for one item from the affective commitment scale (0.378) and two items from the POS scale (0.462 and 0.588). Owing to their weak loadings, these three

items were removed from further analysis. As mentioned earlier, fear of future terrorism and overall job attitude were modeled as second-order reflective constructs in this study. CR and AVE for fear of future terrorism equaled 0.890 and 0.731, respectively, and for overall job attitude 0.905 and 0.828, respectively, providing evidence of reliable second-order constructs. Further, all loadings of the second-order constructs on the first-order constructs were significant at $p < 0.01$ (see Figure 2).

Discriminant validity was tested in three different ways (Henseler, Hubona, and Ray 2016; Voorhees et al. 2016). First, for each scale, item cross-loadings were lower than factor loadings (Chin 1998). Second, the square root of AVE value for each scale was higher than the construct's respective correlation with all other constructs (Fornell and Larcker 1981) (see Table 2). Third, we used the heterotrait-monotrait ratio of correlations (HTMT; Henseler, Ringle, and Sarstedt 2015). In this vein, all values were below the more conservative threshold value of 0.85 (Clark and Watson 1995; Kline 2011) (see

Table 1: Psychometric properties for the first-order constructs.

Construct	No. of items ^c	Loading range ^d	Alpha	CR	AVE
Rumination ^a	5(5)	0.718-0.851	0.839	0.887	0.611
Magnification ^a	3(3)	0.791-0.853	0.745	0.855	0.662
Helplessness ^a	5(5)	0.724-0.819	0.848	0.891	0.621
Job satisfaction ^b	5(5)	0.701-0.792	0.820	0.872	0.578
Affective commitment ^b	5(6)	0.378-0.922	0.913	0.935	0.742
POS	6(8)	0.462-0.850	0.878	0.905	0.615
Absenteeism	1(1)	Single-item construct			

^a First-order constructs of the higher-order construct fear of future terrorism.

^b First-order constructs of the higher-order construct overall job attitude.

^c Final items numbers (initial numbers).

^d Items with factor loadings less than 0.7 were deleted.

Table 2: Means, standard deviations, and correlations among constructs.

Construct	Mean	SD	1	2	3	4	5	6	7	8	9
1. Gender	0.75	0.437	n.a.								
2. Age	35.43	10.899	0.094	n.a.							
3. Rumination ^a	2.88	0.872	-0.206	-0.292	0.782*						
4. Magnification ^a	2.90	1.018	-0.238	-0.352	0.561	0.814*					
5. Helplessness ^a	2.91	0.842	-0.217	-0.310	0.714	0.530	0.788*				
6. Job satisfaction ^b	3.02	0.770	0.182	-0.097	-0.501	-0.411	-0.348	0.760*			
7. Affective commitment ^b	2.97	0.835	0.228	0.139	-0.523	-0.387	-0.399	0.691	0.861*		
8. POS	2.79	0.652	0.083	0.276	-0.312	-0.078	-0.135	0.328	0.623	0.784*	
9. Absenteeism	3.12	2.373	-0.185	0.010	0.477	0.289	0.291	-0.424	-0.524	-0.288	n.a.

*The square root of the AVE on the diagonal (in bold).

n.a.: not applicable.

^a First-order constructs of the higher-order construct fear of future terrorism.

^b First-order constructs of the higher-order construct overall job attitude.

Table 3). Together, the above results provided evidence for convergent and discriminant validity.

5.3. Hypothesis-testing

The R^2 was evaluated to assess the model fit of the proposed structural model. A bootstrapping resampling procedure (1,000 resamples) then proceeded to test the proposed hypotheses using t -tests. As shown in Figure 2, the R^2 for overall job attitude was 0.495, suggesting 49.5 percent of the variance in the outcome variable. The R^2 for absenteeism, on the other hand, was 0.296. Together, the results implied a satisfactory and substantial model. The results of bootstrapping

resampling analysis indicated that all path coefficients were statistically significant (t values greater than 1.96) and in the predicted direction, which lent support to H1, H2, and H3. Blindfolding procedure (omission distance = 7) to evaluate the Stone-Geisser criterion (Geisser 1974; Stone 1974) revealed Q^2 values greater than 0 for the endogenous latent variables, indicating a sufficient predictive relevance (Chin 1998; Henseler, Ringle, and Sinkovics 2009). Finally, the analysis of control variables suggested that there was a significant positive effect of age on absenteeism whereas the effect of gender was insignificant (see Figure 2).

Table 3: HTMT results

Construct	1	2	3	4	5	6	7
1. Rumination ^a							
2. Magnification ^a	0.710						
3. Helplessness ^a	0.827	0.668					
4. Job satisfaction ^b	0.588	0.521	0.416				
5. Affective commitment ^b	0.606	0.484	0.452	0.752			
6. POS	0.373	0.282	0.231	0.447	0.681		
7. Absenteeism	0.526	0.329	0.311	0.471	0.551	0.308	

^a First-order constructs of the higher-order construct fear of future terrorism.

^b First-order constructs of the higher-order construct overall job attitude.

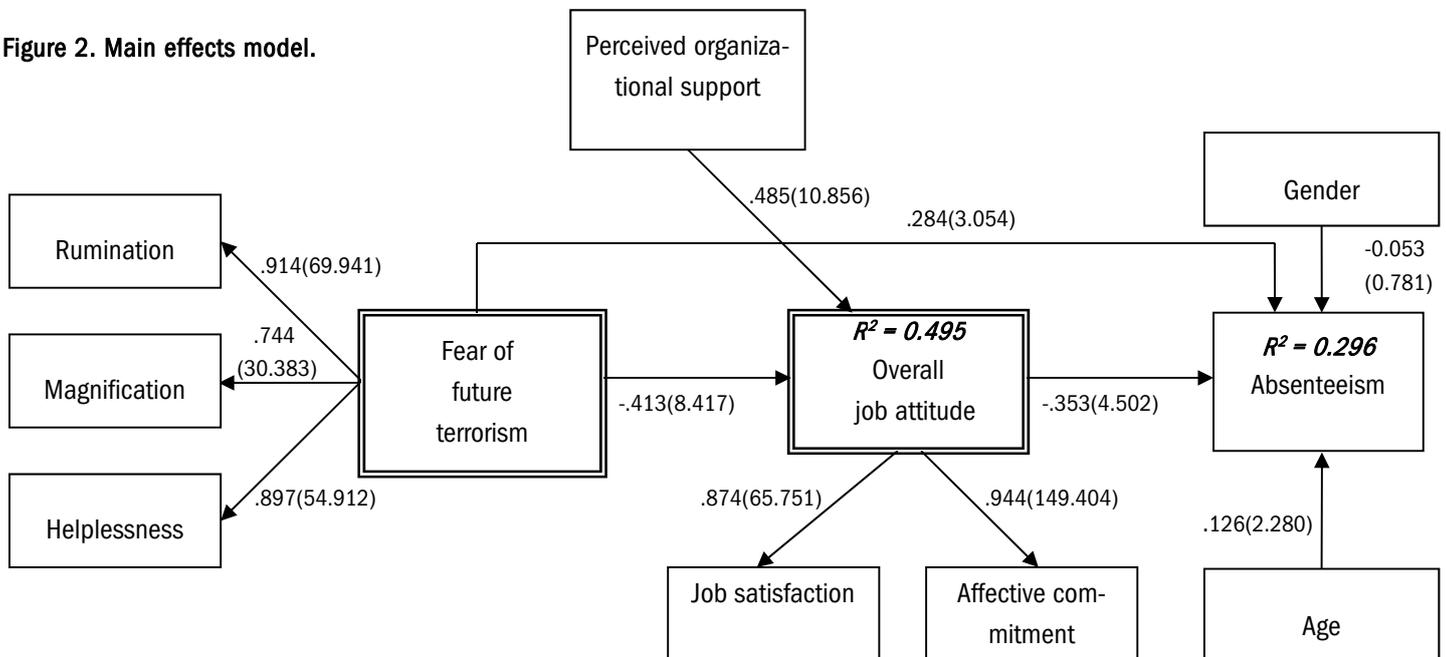
We applied the bootstrapping method to test the significance of indirect effect (Preacher and Hayes 2008, 2004). The results indicated that overall job attitude mediates the relationship between fear of future terrorism and absenteeism with a point estimate of 0.148. Because zero was not included in the 95 percent confidence interval (0.097; 0.205), we concluded that the indirect effect is significantly different from zero at $p < 0.05$. Thus, H4 was supported. To estimate the size of the indirect effect, we used the variance accounted for (VAF; Shrout and Bolger 2002) value, which represents the ratio of the indirect effect to the total effect. The VAF of the partial mediations is normed between 0 percent and 100 percent. Higher values indicate stronger partial mediations (Klärner et al. 2013). The VAF value of 0.340 (0.148 / 0.435) indicated that 34 percent of the total effect of fear of future terrorism on absenteeism was explained by the indirect effect via overall job attitude.

Finally, we applied PLS product indicator approach (Chin, Marcolin, and Newsted 2003) to detect the moderating effect of POS on the relationship between fear of future terrorism and overall job attitude. Following the guidelines of Chin (2010), a bootstrap resampling procedure was performed to assess

whether the interaction effect is significant. The results of 1,000 resamples indicated that path coefficient of 0.260 for the interaction construct was significant at $p < 0.01$ (t value = 4.027) (see Figure 3). Thus, as POS increases in value, the strength of the conditional relationship between fear of future terrorism and overall job attitude is weakened.

As suggested by Henseler and Fassott (2010), the moderating effect was further assessed by comparing the proportion of variance explained (as expressed by the coefficient of determination R^2) of the main effects model (i.e., the model without moderating effect) with the R^2 of the full model (i.e., the model including the moderating effect). The difference in R^2 assesses the overall effect size f^2 for the interaction effect (i.e., $R^2_{included} - R^2_{excluded} / 1 - R^2_{included}$). Values of 0.02, 0.15, and 0.35 indicate that the interaction term has a small, medium, or large effect on the criterion variable. The results showed that the size of the moderating effect is small ($f^2 = 0.10$; Cohen 1988). Consequently, it was confirmed that POS moderates the relationship between fear of future terrorism and overall job attitude, thus supporting H5.

Figure 2. Main effects model.



Note. *t*-values in parenthesis

→ : Direct effect

□ : First-order construct

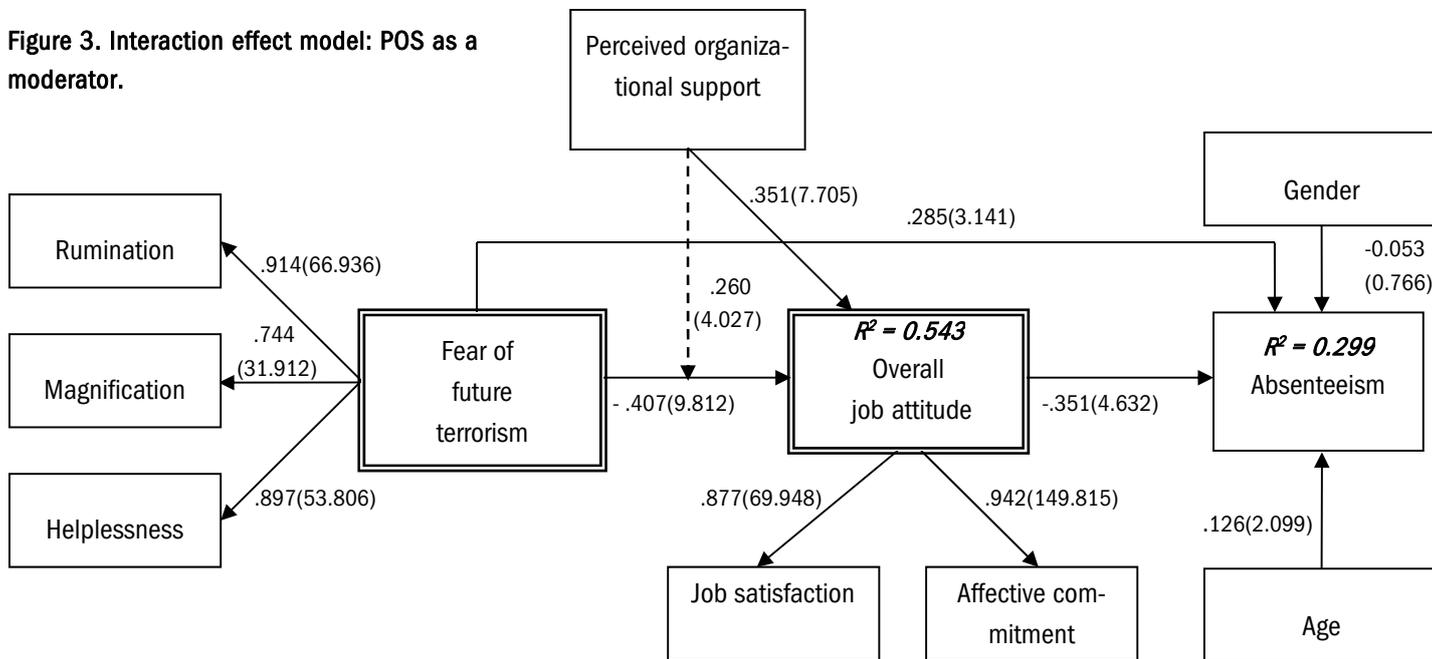
□□ : Reflective second-order construct

6. Discussion

The study sought to analyze the impact of fear of terrorism on employee job attitudes and absenteeism following a national traumatic event (in this case the APS attack). The study also investigated the moderating role of POS in the relationship between fear of terrorism and overall job attitude. The results suggest that fear of terrorism has a direct negative effect on job attitudes. This result is consistent with previous findings indicating that employee sensitivity to terrorism is negatively associated with employee attitudes toward the organization, team, and job (Reade 2009; Reade and Lee 2012; Bader and Berg 2013). Managers should be aware of the likelihood that witnessing external traumatic events can arouse strong negative emotions such as fear and anger, and that employees are

most likely to express them toward people who are closest to them (Mainiero and Gibson 2003). Because these emotions are aroused from outside the organization, managers are less able to control them. Having said that, managers need to be cognizant of such potential emotions and learn how to respond to them in a timely and effective manner. By bringing emotions arising from external factors into the models of job attitudes, we call attention to the need for extending the existing models that typically assume that the level of employee job attitudes is determined by factors internal to the organization. The results further suggest that overall job attitude has a direct negative effect on absenteeism. The result is consistent with previous findings indicating that employees who are dissatisfied with their jobs and/or less committed to their organizations are

Figure 3. Interaction effect model: POS as a moderator.



Note. *t*-values in parenthesis

—→ : Direct effect

- - - - -→ : Moderating effect

□ : First-order construct

▣ : Reflective second-order construct

more likely to be absent from work (Sagie 1998; Harrison and Martocchio 1998). Given that negative job attitudes are more likely to engender work withdrawal behaviors, “it behooves human resource managers to design and support initiatives and programs to help shift employee attitudes in a more positive direction” (Reade 2009, 480). Initiatives and programs would need to address job satisfaction, organizational commitment, perceived organizational support, and feelings of fear and vulnerability. These might take the form of employee assistance programs, counseling, and anti-stress programs (Reade 2009; Bader and Berg 2014).

Another important finding is that fear of terrorism has a direct positive effect on absenteeism. The result is consistent with

previous research indicating that employees who experience strain from an external traumatic event may be more likely to absent in the weeks after the event (Byron and Peterson 2002; Kushnir, Fried, and Malkinson, 2001). This way absenteeism may be viewed as a “hot” reaction to the experience of a strong negative emotion. The finding suggests that absenteeism can be regarded as a form of coping behavior with increased fear by temporarily withdrawing from a threatening situation (Kristensen 1991). The results further suggest that overall job attitude partially mediates the effect of fear of terrorism on absenteeism. The result is consistent with previous research suggesting that job attitudes mediate the relationship between affect-

tive reactions and judgment-driven behaviors (Weiss and Cropanzano 1996). According to Morrison and Robinson (1997), psychological contract breach is likely to result when employees perceive that they have made contributions as promised, yet the employer failed to reciprocate these contributions. In the context of terrorism, this may also hold for the violation of more explicit agreements, such as the “duty of care” (i.e., the requirement that everything reasonable be done to protect the health and safety of employees). This can also be interpreted as inequity; inequity occurs when in the perception of employees the employer has failed to adequately meet promised obligations (van Emmerik, Euwema, and Bakker 2007). Maslow (1943) noted that physiological and safety needs are the most fundamental in his hierarchy of needs, particularly in the aftermath of disaster, when the most immediate needs are for safety, medical attention, food, and shelter (Schouten, Callahan, and Bryant 2004). When psychological contract of safety is violated (as after a terrorist attack), employees are likely to hold their organizations responsible because they expect that their organizations can and should maintain the workplaces a safe and trusting place (Howie 2007). Organizational failure to deliver is associated with diminished job satisfaction and lowered commitment to the organization (Bal et al. 2008). In turn, negative job attitudes may trigger various behavioral withdrawal reactions (Zhao et al. 2007). Consequently, the “cognitive route” through which fear of terrorism affects absenteeism can be more detrimental to individual and organizational well-being. Whereas it is difficult for an organization to predict and prevent terrorist attacks (Kondrasuk 2005). Under this situation, the organization must visibly demonstrate that everything possible is done to assure the safety of the employees in the workplace. Building and maintaining trust with employees may help an organization in mitigating negative emotions at work, thus ameliorating any negative consequences of these emotions on work-related outcomes.

Finally, our results suggest that an internal organizational variable, POS, can attenuate the negative effect of fear of terrorism on overall job attitude. The result is consistent with previous findings indicating that POS, the support that organization leaders provide their employees in the form of recognition,

trust, and care, does moderate the relationship between employee sensitivity to extraorganizational stressors and personal and organizational outcomes (Reade and Lee 2012; Bader, Berg, and Holtbrügge 2015). With higher POS, the potentially detrimental effect of fear of terrorism on employee job attitudes becomes weaker. The practical implication of this finding is that managers may have some degree of control, through organizational intervention in the form of human resource management practices, over the way in which extraorganizational factors affect employee job attitudes (Reade and Lee 2012). However, since organizational interventions can only be effective if employees perceive them as valuable, organizations need to create a dialogue with their employees, trying to figure out what is important to them and what they expect their employer to do (Bader, Berg, and Holtbrügge 2015). Whereas typical forms of social support, such as recognizing and rewarding the employee's extra effort or providing promotional opportunities, are perceived as valuable in any employer-employee relationship (Eisenberger et al. 1986), special consideration of the hazards in terrorism-endangered countries need to be taken into account and openly communicated to the employees (Bader, Berg, and Holtbrügge 2015). For example, the organization must credibly prove that it is quick to respond to the safety concerns of the employees and takes the safety ideas of employees seriously (Tucker et al. 2008).

The study has some limitations that provide opportunities for future research. First, despite great efforts to increase the sample size, identifying potential respondents who are willing to provide information on some very sensitive topics, is difficult. Evaluation of our statistical procedure showed that the predictive power is still large enough to derive conclusions that apply for the whole population; however, a generalization of the results should be undertaken with care. Second, the data were collected retrospectively, meaning that the traumatic event may have influenced the employees' responses (for example, their perception of social support). Thus, future studies should incorporate a longitudinal design including both pre- and post-disaster surveys; however, the unpredictable nature of many traumatic events has likely limited the use of this design in related research (Byron and Peterson 2002). Future studies should attempt to replicate this research in the context of other

negative incidents associated with national political traumas amongst employees belonging to diverse occupational groups. In addition, future research should assess employees' reactions over a longer period of time, and should include multiple behavioral outcomes, including performance, turnover, and absenteeism. Third, in order to evaluate the level of POS, we used items from the POS scale developed by Eisenberger et al. (1986), some of them adapted to the special challenges in a terrorism-endangered country (Bader 2015). The POS scale comprises items that only measure employees' perceptions regarding typical forms of social support provided by the organization. Future studies should develop and validate a scale to gauge employees' perceptions of social support regarding how much the organization cares about their concerns about potential terrorist attacks. Lastly, as self-report measures were used, a systematic bias could occur if respondents misinterpreted their own feelings. However, as most of the study variables targeted at the individual's own perceptions, there was no other option than to rely on the respondents' ability to judge their own feelings and answer the questions accordingly (Bader 2015).

The study contributes to existing literature in several ways. First, very few studies have demonstrated how extraorganizational stressors, such as national traumatic events, may influence the important – and potentially costly – organizational outcome of absenteeism. In this study, we extend the literature on absenteeism by demonstrating how fear of terrorism can lead to absenteeism in the weeks following a national traumatic event. Second, the study explored the mediating role of overall job attitude in the relationship between fear of terrorism and absenteeism. Third, the study demonstrated how an internal organizational variable, perceived organizational support (POS), can attenuate the negative impact of terrorism-related fear on employee job attitudes.

In summary, our study suggests that broad societal variables such as national traumatic events may have an important impact on absenteeism. Furthermore, because the increase in absenteeism triggered by such national events occurs across many organizations, the aggregate effects may be substantial. However, as the results also show, by maintaining high per-

ceived organizational support among their employees organizations can mitigate the adverse effects of societal or national traumatic events on job-related outcomes.

References

- Aly, Anne, and Lelia Green. 2010. Fear, Anxiety and the State of Terror. *Studies in Conflict & Terrorism* 33 (3): 268–81.
- Astrachan, Claudia B., Vijay K. Patel, and Gabrielle Wanzenried. 2014. A Comparative Study of CB-SEM and PLS-SEM for Theory Development in Family Firm Research. *Journal of Family Business Strategy* 5 (1): 116–28.
- Bader, Benjamin. 2015. The Power of Support in High-risk Countries: Compensation and Social Support as Antecedents of Expatriate Work Attitudes. *International Journal of Human Resource Management* 26 (13): 1712–36.
- Bader, Benjamin, and Nicole Berg. 2013. An Empirical Investigation of Terrorism-induced Stress on Expatriate Attitudes and Performance. *Journal of International Management* 19 (2): 163–75.
- Bader, Benjamin, and Nicole Berg. 2014. The Influence of Terrorism on Expatriate Performance: A Conceptual Approach. *International Journal of Human Resource Management* 25 (4): 539–57.
- Bader, Benjamin, Nicole Berg, and Dirk Holtbrügge. 2015. Expatriate Performance in Terrorism-endangered Countries: The Role of Family and Organizational Support. *International Business Review* 24 (5): 849–60.
- Bakker, Arnold B., Evangelia Demerouti, Elpina de Boer, and Wilmar B. Schaufeli. 2003. Job Demands and Job Resources as Predictors of Absence Duration and Frequency. *Journal of Vocational Behavior* 62 (2): 341–56.
- Bal, Matthijs P., Annet H. de Lange, Paul G. W. Jansen, and Mandy E. G. van der Velde. 2008. Psychological Contract Breach and Job Attitudes: A Meta-analysis of Age as a Moderator. *Journal of Vocational Behavior* 72 (1): 143–58.
- Barclay, Donald, Christopher Higgins, and Ronald Thompson. 1995. The Partial Least Squares (PLS) Approach to Causal Modeling: Personal Computer Adoption and Use as an Illustration. *Technology Studies* 2 (2): 285–309.
- Beehr, Terry A., and Nina Gupta. 1978. A Note on the Structure of Employee Withdrawal. *Organizational Behavior and Human Performance* 21 (1): 73–79.
- Biernacki, Patrick, and Dan Waldorf. 1981. Snowball Sampling: Problems and Techniques of Chain Referral Sampling. *Sociological Methods and Research* 10 (2): 141–63.
- Blau, Gary J., and Kimberly B. Boal. 1987. Conceptualizing How Job Involvement and Organizational Commitment Affect Turnover and Absenteeism. *Academy of Management Review* 12 (2): 288–300.
- Bradford, Emma, and Margaret A. Wilson. 2013. When Terrorists Target Schools: An Exploratory Analysis of Attacks on Educational Institutions. *Journal of Police and Criminal Psychology* 28 (2): 127–38.
- Brayfield, Arthur H., and Harold F. Rothe. 1951. An Index of Job Satisfaction. *Journal of Applied Psychology* 35 (5): 307–11.
- Beckler, Steven J. 1984. Empirical Validation of Affect, Behavior, and Cognition as Distinct Components of Attitude. *Journal of Personality and Social Psychology* 47 (6): 1191–1205.
- Brooke, Paul P. 1986. Beyond the Steers and Rhodes Model of Employee Attendance. *Academy of Management Review* 11 (2): 345–61.
- Brooke, Paul P., and James L. Price. 1989. The Determinants of Employee Absenteeism: An Empirical Test of a Causal Model. *Journal of Occupational Psychology* 62 (1): 1–19.
- Byron, Kristin, and Suzanne Peterson. 2002. The Impact of a Large-scale Traumatic Event on Individual and Organizational Outcomes: Exploring Employee and Company Reactions to September 11, 2001. *Journal of Organizational Behavior* 23 (8): 895–910.
- Chin, Wynne W. 1998. The Partial Least Squares Approach to Structural Equation Modeling. In *Modern Methods for Business Research*, ed. George A. Marcoulides, 295–336. Mahwah, NJ: Lawrence Erlbaum.
- Chin, Wynne W. 2010. How to Write Up and Report PLS Analyses. In *Handbook of Partial Least Squares: Concepts, Methods and Applications*, ed. Vincenzo E. Vinzi, Wynne W. Chin, Jörg Henseler, and Huiwen Wang, 655–90. Berlin and Heidelberg: Springer.

- Chin, Wynne W., Barbara L. Marcolin, and Peter R. Newsted. 2003. A Partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from a Monte Carlo Simulation Study and Voice Mail Emotion/Adoption Study. *Information Systems Research* 14 (2): 189–217.
- Clark, Lee A., and David Watson. 1995. Constructing Validity: Basic Issues in Objective Scale Development. *Psychological Assessment* 7 (3): 309–19.
- Cohen, Aaron, and Ronit Golan. 2007. Predicting Absenteeism and Turnover Intentions by Past Absenteeism and Work Attitudes: An Empirical Examination of Female Employees in Long Term Nursing Care Facilities. *Career Development International* 12 (5): 416–32.
- Cohen, Jacob. 1988. *Statistical Power Analysis for the Behavioral Sciences*. Mahwah, NJ: Lawrence Erlbaum.
- Crites, Stephen L., Leandre R. Fabrigar, and Richard E. Petty. 1994. Measuring the Affective and Cognitive Properties of Attitudes: Conceptual and Methodological Issues. *Personality and Social Psychology Bulletin* 20 (6): 619–34.
- Diener, Ed, Marissa Diener, and Carol Diener. 1995. Factors Predicting the Subjective Well-Being of Nations. In *Culture and Well-Being*, ed. Ed Diener, 43–70. Berlin and Heidelberg: Springer.
- Eagly, Aalice H., and Shelly Chaiken. 1993. *The Psychology of Attitudes*. Texas: Harcourt Brace Jovanovich College Publishers.
- Eisenberger, Robert, Robin Huntington, Steven Hutchison, and Debora Sowa. 1986. Perceived Organizational Support. *Journal of Applied Psychology* 71 (3): 500–507.
- Fisher, Cynthia D. 2002. Real Time Affect at Work: A Neglected Phenomenon in Organizational Behaviour. *Australian Journal of Management* 27 (1): 1–10.
- Fornell, Claes, and David F. Larcker. 1981. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18 (1): 39–50.
- Galea, Sandro, Jennifer Ahern, Heidi Resnick, Dean Kilpatrick, Michael Bucuvalas, Joel Gold, and David Vlahov. 2002. Psychological Sequelae of the September 11 Terrorist Attacks in New York City. *New England Journal of Medicine* 346 (13): 982–87.
- Geisser, Seymour. 1974. A Predictive Approach to the Random Effect Model. *Biometrika* 60 (1): 101–107.
- Gellatly, Ian R. 1995. Individual and Group Determinants of Employee Absenteeism: Test of a Causal Model. *Journal of Organizational Behavior* 16 (5): 469–85.
- Gibney, Mark, Linda Cornett, Reed Wood, Peter Haschke, and Daniel Aron. 2016. *The Political Terror Scale*. <https://www.politicalterroryscale.org> (accessed June 30, 2017).
- Goodman, Paul S., and Robert S. Atkin. 1984. *Absenteeism: New Approaches to Understanding, Measuring, and Managing Employee Absence*. San Francisco: Jossey-Bass.
- Griep, Rosane H., Lúcia Rotenberg, Dora Chor, Susanna Toivanen, and Paul Landsbergis. 2010. Beyond Simple Approaches to Studying the Association between Work Characteristics and Absenteeism: Combining the DCS and ERI Models. *Work and Stress* 24 (2): 179–95.
- Hair, Joseph F., G. Tomas M. Hult, Christian M. Ringle, and Marko Sarstedt. 2016. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks: Sage.
- Hall, Molly J., Ann E. Norwood, Robert J. Ursano, Carol S. Fullerton, and Catherine J. Levinson. 2002. Psychological and Behavioral Impacts of Bioterrorism. *PTSD Research Quarterly* 13 (4): 1–7.
- Hanisch, Kathy A., and Charles L. Hulin. 1991. General Attitudes and Organizational Withdrawal: An Evaluation of a Causal Model. *Journal of Vocational Behavior* 39 (1): 110–28.
- Harrison, David A., and Joseph J. Martocchio. 1998. Time for Absenteeism: A 20-year Review of Origins, Offshoots, and Outcomes. *Journal of Management* 24 (3): 305–50.
- Harrison, David A., and Margaret A. Shaffer. 1994. Comparative Examinations of Self-reports and Perceived Absenteeism Norms: Wading through Lake Wobegon. *Journal of Applied Psychology* 79 (2): 240–51.
- Harrison, David A., Daniel A. Newman, and Philip L. Roth. 2006. How Important are Job Attitudes? Meta-analytic Comparisons of Integrative Behavioral Outcomes and Time Sequences. *Academy of Management Journal* 49 (2): 305–25.
- Henseler, Jörg, and Georg Fassott. 2010. Testing Moderating Effects in PLS Path Models: An Illustration of Available Procedures. In *Handbook of Partial Least Squares: Concepts, Methods and Applications*, ed. Vincenzo E. Vinzi, Wynne W. Chin, Jörg Henseler, and Huiwen Wang, 713–35. Berlin and Heidelberg: Springer.
- Henseler, Jörg, Geoffrey Hubona, and Pauline A. Ray. 2016. Using PLS Path Modeling in New Technology Research: Updated Guidelines. *Industrial Management and Data Systems* 116 (1): 2–20.
- Henseler, Jörg, Christian M. Ringle, and Marko Sarstedt. 2015. A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling. *Journal of the Academy of Marketing Science* 43 (1): 115–35.
- Henseler, Jörg, Christian M. Ringle, and Rudolf R. Sinkovics. 2009. The Use of Partial Least Squares Path Modeling in International Marketing. In *New Challenges to International Marketing*, ed. Rudolf R. Sinkovics, and Pervez N. Ghauri, 277–319. Bingley, UK: Emerald.
- Howie, Luke. 2007. The Terrorism Threat and Managing Workplaces. *Disaster Prevention and Management: An International Journal* 16 (1): 70–78.
- Inness, Michelle, and Julian Barling. 2005. Terrorism. In *Handbook of Work Stress*, ed. Julian Barling, E. Kevin Kelloway, and Michael R. Frone, 375–99. Thousand Oaks: Sage.
- Jex, Steve M., and Thomas W. Britt. 2008. *Organizational Psychology: A Scientist-Practitioner Approach*. Hoboken, NJ: John Wiley & Sons.
- Johns, Gary. 1997. Contemporary Research on Absence from Work: Correlates, Causes and Consequences. In *International Review of Industrial and Organizational Psychology*, ed. Cary L. Cooper and Ivan T. Robertson, 115–74. Hoboken, NJ: John Wiley & Sons.
- Johns, Gary. 2002. Absenteeism and Mental Health. In *Handbook of Mental Health in the Workplace*, ed. Jay C. Thomas and Michel Hersen, 437–55. Thousand Oaks: Sage.
- Johns, Gary, and Mariella Miraglia. 2015. The Reliability, Validity, and Accuracy of Self-reported Absenteeism from Work: A Meta-analysis. *Journal of Occupational Health Psychology* 20 (1): 1–14.
- Judge, Timothy A., and John D. Kammeyer-Mueller. 2012. Job Attitudes. *Annual Review of Psychology* 63:341–67.
- Kaniasty, Krzysztof, and Fran H. Norris. 1995. Mobilization and Deterioration of Social Support Following Natural Disasters. *Current Directions in Psychological Science* 4 (3): 94–98.
- Kastenmüller, Andreas, Tobias Greitemeyer, Nilüfer Aydin, Andrew J. Tattersall, Claudia Peus, Petra Bussmann, Julia Fischer, Dieter Frey, and Peter Fischer. 2011. Terrorism Threat and Networking: Evidence that Terrorism Salience Decreases Occupational Networking. *Journal of Organizational Behavior* 32 (7): 961–77.
- Klamer, Patricia, Marko Sarstedt, Michael Hoeck, and Christian M. Ringle. 2013. Disentangling the Effects of Team Competences, Team Adaptability, and Client Communication on the Performance of Management Consulting Teams. *Long Range Planning* 46 (3): 258–86.
- Kleinberg, Jeffrey. 2005. On the Job after 9/11: Looking at Worker's Block Through a Group Lens. *Group Analysis* 38 (2): 203–18.
- Kline, Rex B. 2011. *Principles and Practice of Structural Equation Modeling*. New York: Guilford.
- Kondrasuk, Jack N. 2005. A US View of Terrorism. *Disaster Prevention and Management: An International Journal* 14 (5): 644–56.
- Kristensen, Tage S. 1991. Sickness Absence and Work Strain among Danish Slaughterhouse Workers: An Analysis of Absence from Work Regarded as Coping Behaviour. *Social Science and Medicine* 32 (1): 15–27.
- Kushnir, Talma, Yitzhak Fried, and Ruth Malkinson. 2001. Work Absence as a Function of a National Traumatic Event: The Case of Prime Minister Rabin's Assassination. *Work & Stress* 15 (3): 265–73.
- Lohmöller, Jan-Bernd. 1989. *Latent Variable Path Modeling with Partial Least Squares*. Berlin and Heidelberg: Springer.
- Mainiero, Lisa A., and Donald E. Gibson. 2003. Managing Employee Trauma: Dealing with the Emotional Fall-out from 9-11. *Academy of Management Executive* 17 (3): 130–43.
- Malik Omer F., Haslinda Abdullah, and Jegak A. Uli. 2014. The Effects of Terrorism on Work Attitudes and Behaviors: A Literature Review and a Proposed Model. *Journal of Aggression, Conflict and Peace Research* 6 (3): 143–63.
- Maslow, Abraham H. 1943. A Theory of Human Motivation. *Psychological Review* 50 (4): 370–96.
- Mathieu, John E., and Dennis M. Zajac. 1990. A Review and Meta-analysis of the Antecedents, Correlates, and Consequences of Organizational Commitment. *Psychological Bulletin* 108 (2): 171–94.

- Mathis, Robert L., John H. Jackson, and Sean R. Valentine. 2014. *Human Resource Management*. Stamford: Cengage Learning.
- McShane, Steven L., and Mary A. Von Glinow. 2014. *Organizational Behavior: Emerging Knowledge, Global Reality*. New York: McGraw-Hill.
- McShane, Steven L. 1984. Job Satisfaction and Absenteeism: A Meta-analytic Re-examination. *Canadian Journal of Administrative Sciences* 1 (1): 61-77.
- Messarra, Leila, and Silva K. Karkoulian. 2008. Organizational Commitment Recall in Times of Crisis. *Journal of International Business Research* 7 (1): 109-18.
- Meyer, John P., and Natalie J. Allen. 1991. A Three-component Conceptualization of Organizational Commitment. *Human Resource Management Review* 1 (1): 61-89.
- Meyer, John P., Natalie J. Allen, and Catherine A. Smith. 1993. Commitment to Organizations and Occupations: Extension and Test of a Three-component Conceptualization. *Journal of Applied Psychology* 78 (4): 538-51.
- Miller, Erin. 2014. *Terrorist Attacks on Educational Institutions*. <https://www.start.umd.edu/publication/terrorist-attacks-educational-institutions> (accessed November 05, 2015).
- Molotch, Harvey, and Noah McClain. 2003. Dealing with Urban Terror: Heritages of Control, Varieties of Intervention, Strategies of Research. *International Journal of Urban and Regional Research* 27 (3): 679-98.
- Morrison, Elizabeth W., and Sandra L. Robinson. 1997. When Employees Feel Betrayed: A Model of How Psychological Contract Violation Develops. *Academy of Management Review* 22 (1): 226-56.
- Muchinsky, Paul M. 1977. Employee Absenteeism: A Review of the Literature. *Journal of Vocational Behavior* 10 (3): 316-40.
- Murphy, Shirley A., L. Clark Johnson, and Randal D. Beaton. 2004. Fire Fighters' Cognitive Appraisals of Job Concerns, Threats to Well-being, and Social Support Before and After the Terrorist Attacks on September 11, 2001. *Journal of Loss and Trauma* 9 (3): 269-83.
- Nellis, Ashley M. 2009. Gender Differences in Fear of Terrorism. *Journal of Contemporary Criminal Justice* 25 (3): 322-40.
- Nguyen, Helena, Markus Groth, and Anya Johnson. 2016. When the Going Gets Tough, the Tough Keep Working: Impact of Emotional Labor on Absenteeism. *Journal of Management* 42 (3): 615-43.
- Olson, James M., and Mark P. Zanna. 1993. Attitudes and Attitude Change. *Annual Review of Psychology* 44 (1): 117-54.
- Osinubi, Omowunmi Y. O., Sampada K. Gandhi, Pamela Ohman-Strickland, Cheryl Boglarsky, Nancy Fiedler, Howard Kipen, and Mark Robson. 2008. Organizational Factors and Office Workers' Health after the World Trade Center Terrorist Attacks: Long-term Physical Symptoms, Psychological Distress, and Work Productivity. *Journal of Occupational and Environmental Medicine* 50 (2): 112-25.
- Perl, Raphael F. 1997. *Terrorism, the Media, and the Government: Perspectives, Trends, and Options for Policymakers*. <https://www.au.af.mil/au/awcgate/state/crs-terror-media.htm> (accessed November 17, 2015).
- Podsakoff, Philip M., Scott B. MacKenzie, Jeong-Yeon Lee, and Nathan P. Podsakoff. 2003. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology* 88 (5): 879-903.
- Preacher, Kristopher J., and Andrew F. Hayes. 2004. SPSS and SAS Procedures for Estimating Indirect Effects in Simple Mediation Models. *Behavior Research Methods, Instruments, and Computers* 36 (4): 717-31.
- Preacher, Kristopher J., Andrew F. Hayes. 2008. Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models. *Behavior Research Methods* 40 (3): 879-91.
- Punnett, Betty J., Dion Greenidge, and Jase Ramsey. 2007. Job Attitudes and Absenteeism: A Study in the English Speaking Caribbean. *Journal of World Business* 42 (2): 214-27.
- Reade, Carol. 2009. Human Resource Management Implications of Terrorist Threats to Firms in the Supply Chain. *International Journal of Physical Distribution and Logistics Management* 39 (6): 469-85.
- Reade, Carol, and Hyun-Jung Lee. 2012. Organizational Commitment in Time of War: Assessing the Impact and Attenuation of Employee Sensitivity to Ethnopolitical Conflict. *Journal of International Management* 18 (1): 85-101.
- Rhoades, Linda, and Robert Eisenberger. 2002. Perceived Organizational Support: A Review of the Literature. *Journal of Applied Psychology* 87 (4): 698-714.
- Ringle, Christian M., Sven Wende, and Jan-Michael Becker. 2015. SmartPLS 3. Boenningstedt: SmartPLS GmbH. <https://www.smartpls.com>.
- Ronen, Tammie, Giora Rahav, and Naomi Appel. 2003. Adolescent Stress Responses to a Single Acute Stress and to Continuous External Stress: Terrorist Attacks. *Journal of Loss and Trauma* 8 (4): 261-82.
- Rosenberg, Milton J., and Carl I. Hovland. 1960. Cognitive, Affective, and Behavioral Components of Attitudes. In *Attitude Organization and Change: An Analysis of Consistency among Attitude Components*, ed. Milton J. Rosenberg, Carl I. Hovland, William J. McGuire, Robert P. Abelson, and Jack W. Brehm, 1-14. New Haven, CT: Yale University Press.
- Rosse, Joseph G. 1988. Relations among Lateness, Absence, and Turnover: Is There a Progression of Withdrawal? *Human Relations* 41 (7): 517-31.
- Ryan, Ann M., Bradley J. West, and Jennifer Z. Carr. 2003. Effects of the Terrorist Attacks of 9/11/01 on Employee Attitudes. *Journal of Applied Psychology* 88 (4): 647-59.
- Sagie, Abraham. 1998. Employee Absenteeism, Organizational Commitment, and Job Satisfaction: Another Look. *Journal of Vocational Behavior* 52 (2): 156-71.
- Schmid, Alex P., and Albert J. Jongman. 1988. *Political Terrorism: A New Guide to Actors, Authors, Concepts, Data Bases, Theories, and Literature*. New Brunswick, NJ: Transaction.
- Schouten, Ronald, Michael V. Callahan, and Shannon Bryant. 2004. Community Response to Disaster: The Role of the Workplace. *Harvard Review of Psychiatry* 12 (4): 229-37.
- Schuster, Mark A., Bradley D. Stein, Lisa H. Jaycox, Rebecca L. Collins, Grant N. Marshall, Marc N. Elliott, Annie J. Zhou, David E. Kanouse, Janina L. Morrison, and Sandra H. Berry. 2001. A National Survey of Stress Reactions after the September 11, 2001, Terrorist Attacks. *New England Journal of Medicine* 345 (20): 1507-12.
- Shalev, Arie Y., Rivka Tuval, Sarah Frenkiel-Fishman, Hilit Hadar, and Spencer Eth. 2008. Psychological Responses to Continuous Terror: A Study of Two Communities in Israel. *American Journal of Psychiatry* 163 (4): 667-73.
- Shamian, Judith, Linda O'Brien-Pallas, Donna Thomson, Chris Alksnis, and Michael S. Kerr. 2003. Nurse Absenteeism, Stress and Workplace Injury: What are the Contributing Factors and What Can/Should Be Done about It? *International Journal of Sociology and Social Policy* 23 (8/9): 81-103.
- Shirom, Arie, Sharon Toker, Itzhaq Shapira, Shlomo Berliner, and Samuel Melamed. 2008. Exposure to and Fear of Terror as Predictors of Self-rated Health among Apparently Healthy Employees. *British Journal of Health Psychology* 13 (2): 257-71.
- Shrout, Patrick E., and Niall Bolger. 2002. Mediation in Experimental and Nonexperimental Studies: New Procedures and Recommendations. *Psychological Methods* 7 (4): 422-45.
- Sinclair, Samuel J. 2010. Fears of Terrorism and Future Threat: Theoretical and Empirical Considerations. In *Interdisciplinary Analyses of Terrorism and Political Aggression*, ed. Daniel Antonius, Adam D. Brown, Tali K. Walets, J. Martin Ramirez, and Samuel J. Sinclair, 101-115. Newcastle upon Tyne, Cambridge Scholars Publishing.
- Sinclair, Samuel J., and Alice LoCicero. 2007. Fearing Future Terrorism: Development, Validation, and Psychometric Testing of the Terrorism Catastrophizing Scale (TCS). *Traumatology* 13 (4): 75-90.
- Sinclair, Samuel J., and Alice LoCicero. 2010. Assessing the Ongoing Psychological Impact of Terrorism. In *Handbook of Clinical Rating Scales and Assessment in Psychiatry and Mental Health*, ed. Lee Baer and Mark A. Blais, 271-85. New York: Springer.
- Solinger, Omar N., Woody van Offen, and Robert A. Roe. 2008. Beyond the Three-component Model of Organizational Commitment. *Journal of Applied Psychology* 93 (1): 70-83.
- South Asia Terrorism Portal. 2017. *Fatalities in Terrorist Violence in Pakistan 2003-2017*. <https://www.satp.org/satporgtp/countries/pakistan/database/casualties.htm> (accessed June 30, 2017).
- Steers, Richard M., and Susan R. Rhodes. 1978. Major Influences on Employee Attendance: A Process Model. *Journal of Applied Psychology* 63 (4): 391-407.
- Stone, M. 1974. Cross-validated Choice and Assessment of Statistical Predictions. *Journal of the Royal Statistical Society. Series B (Methodological)* 36 (2): 111-47.
- Tucker, Sean, Nick Chmiel, Nick Turner, Sandy M. Hershcovis, and Chris B. Stride. 2008. Perceived Organizational Support for Safety and Employee Safety Voice: The Mediating Role of Coworker Support for Safety. *Journal of Occupational Health Psychology* 13(4):319-30.
- van Emmerik, J. Hetty, Martin C. Euwema, and Arnold B. Bakker. 2007. Threats of Workplace Violence and the Buffering Effect of Social Support. *Group and Organization Management* 32 (2): 152-75.

- Voorhees, Clay M., Michael K. Brady, Roger Calantone, and Edward Ramirez. 2016. Discriminant Validity Testing in Marketing: An Analysis, Causes for Concern, and Proposed Remedies. *Journal of the Academy of Marketing Science* 44 (1): 119-34.
- Wegge, Jürgen, Klaus-Helmut Schmidt, Carole Parkes, and Rolf Van Dick. 2007. Taking a Sickie: Job Satisfaction and Job Involvement as Interactive Predictors of Absenteeism in a Public Organization. *Journal of Occupational and Organizational Psychology* 80 (1): 77-89.
- Weiss, Howard M. 2002. Deconstructing Job Satisfaction: Separating Evaluations, Beliefs and Affective Experiences. *Human Resource Management Review* 12 (2): 173-94.
- Weiss, Howard M., and Russell Cropanzano. 1996. Affective Events Theory: A Theoretical Discussion of the Structure, Causes and Consequences of Affective Experiences at Work. *Research in Organizational Behavior* 18:1-74.
- Westman, Mina, and Dalia Etzion. 2001. The Impact of Vacation and Job Stress on Burnout and Absenteeism. *Psychology and Health* 16 (5): 595-606.
- Wetzels, Martin, Gaby Odekerken-Schröder, and Claudia van Oppen. 2009. Using PLS Path Modeling for Assessing Hierarchical Construct Models: Guidelines and Empirical Illustration. *MIS Quarterly* 31 (1): 177-95.
- Wold, Herman. 1982. Soft Modeling: The Basic Design and Some Extensions. In *Systems Under Indirect Observation: Causality, Structure, Prediction*, ed. Karl G. Jöreskog and Herman Wold, 1-54. Amsterdam: North-Holland Publishing.
- Ybema, Jan F., Peter G. Smulders, and Paulien M. Bongers. 2010. Antecedents and Consequences of Employee Absenteeism: A Longitudinal Perspective on the Role of Job Satisfaction and Burnout. *European Journal of Work and Organizational Psychology* 19 (1): 102-24.
- Yum, Young-Ok, and William Schenck-Hamlin. 2005. Reactions to 9/11 as a Function of Terror Management and Perspective Taking. *Journal of Social Psychology* 145 (3): 265-86.
- Zanna, M. P. and Rempel, J. K. 1988. Attitudes: A New Look at an Old Concept. In *The Social Psychology of Knowledge*, ed. Daniel Bar-Tel and Arie W. Kruglanski, 315-34. Cambridge, UK: Cambridge University Press.
- Zhao, Hao, Sandy J. Wayne, Brian C. Glibkowski, and Jesus Bravo. 2007. The Impact of Psychological Contract Breach on Work-related Outcomes: A Meta-analysis. *Personnel Psychology* 60 (3): 647-80.
- Zimbardo, Philip, and Bruce Kluger. 2003. Overcoming Terror: Is Washington Terrorizing Us More Than Al Qaeda? *Psychology Today*, March 20. <https://www.psychologytoday.com/articles/200307/overcoming-terror/> (accessed October 28, 2015).