



A Century of Stress: Stress Theories and Preventive Management in a Global Context

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Abstract: The year 2015 is the 100th anniversary of the first edition of Walter Bradford Cannon's 1915 book that set the cornerstone for the field of stress. We briefly review his homeostatic approach to stress along with four other approaches, especially as relevant to the industrial and organizational (I/O) psychologist. Next, we explore the contemporary global context in which national cultures vary. We chose the theory of Preventive Stress Management as the basis for examining the five elements of the stress process in organizations. We come back to the two approaches to stress spotlighted early in the manuscript, offering comparisons and contrasts based on the five elements of the stress process. The discussion focuses on how stress can be both the kiss of death and the spice of life, after which we offer a personal cultural commentary on stress in various national contexts.

Keywords: stress, culture, Preventive Stress Management, globalization.

A century of stress: Stress theories and preventive management in a global context

The year 2015 marks the 100th anniversary of Walter Bradford Cannon's first edition of *Bodily Changes in Pain, Hunger, Fear and Rage*. This classic volume and Cannon's subsequent research set the cornerstone for the field of stress. While he held the MD degree and was the George Higginson Professor of Physiology in the medical faculty at Harvard University, he played a pioneering role in the American Psychological Association, possibly through his relationship with William James who had been one of his professors during his undergraduate studies at Harvard. Cannon was one of the first six APA members elected to membership in the National Academy of Sciences (Evans, Sexton, & Cadwallader, 1992). Edward L. Thorndike was the 7th elected in 1917. In the 1920s, Cannon befriended Ivan Pavlov, the famous Russian physiologist during the latter's visit to America. The two seminal

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physiologists are depicted together at the 1929 APA meeting (see photo 16 following page 232 in Evans et al., 1992).

While Cannon set the cornerstone for stress research early in the 1900s, it took half a century for American psychologists to add their own independent theorizing and research to the field (J. C. Quick, Wright, Adkins, Nelson, & Quick, 2013). The major psychological theories that emerged during the 1960s were Robert Kahn's role stress/ person-environment fit approach; Richard Lazarus' cognitive appraisal and coping approach; and Harry Levinson's ego-ideal/self-image discrepancy approach. During the late 1970s, the Quick brothers translated the public health notions of prevention into an organizational stress context, forging the theory of Preventive Stress Management (Cooper, 1998). Hargrove and his colleagues (2011) completed a 33-year review of that theory and included some incremental extensions of the original hypotheses and corollary.

During the 2000s, the Quicks collaborated with Joanne Gavin and Sir Cary Cooper in the application of the theory of preventive stress management to an executive context (J. C. Quick, Cooper, Quick, & Gavin, 2002). The same preventive medicine platform that undergirds the Preventive Stress Management model was used here for executive health, with special attention to executive vulnerability factors and executive strength factors. The work was translated into 8 languages beyond English, one of which was Russian (Квик, Купер, Квик, и Гэйвин, 2003).

While Cannon had a rather well conceived and defined use of the terms "stress" and "strain" throughout his work, the term "stress" has become an increasingly and creatively ambiguous term. However, stress is an excellent overarching term or rubric for a domain of study concerned with human adjustment and adaptation to environment, be that environment physical or psychosocial, as in the case of organizations and work life. What has emerged in this first century of stress research are a set of theories of stress, especially as they can be applied to the industrial and organizational context. We briefly overview five of these approaches to stress that have been dominant in the field and then focus particular attention on two theories that offer continuing applicability. After reviewing these approaches to stress, we discuss national culture and its relationship to the elements of three before examining the five elements of the stress process in organizations. We come back to the two approaches to stress spotlighted earlier in the manuscript, offering comparisons and contrasts based on the five elements of the stress process. After some discussion and conclusions, we offer a personal cultural commentary on stress in various national contexts. While the stress process has clear stereotypic elements, it is ultimately an individual experience at the core.

Five Approaches to Stress

Walter Cannon's (1915) approach to stress is the first of five that we will overview. In addition to his homeostatic model, we consider the cognitive appraisal approach, the person-environment fit approach, the psychoanalytic approach, and the conservation of resources approach. Cannon initially characterized stress as the emergency response because of its systemic nature in the face of environmental threats and challenges, later choosing the term fight-or-flight as the more apt descriptor. In addition, Cannon coined the term homeostasis to characterize the body's steady-state functioning. In his approach, stress disturbed the homeostatic condition of the physiology, throwing the system off balance and leading to a person's struggle or fight to return to steady-state functioning by overcoming or avoiding the threat or challenge. To homeostasis, McEwen (1998) added the term allostasis that helps promote adaptation in the short run. However, while functional in the short run, allostatic load in the long run can lead to disease and disorder. Thus, Cannon's identification of the

stress response as an alarm reaction to threat or challenge is highly functional and adaptive so long as the person shifts from allostasis to homeostasis in a relatively short period of time.

Robert Kahn was one of the first researchers to take the stress construct into psychology, focusing attention on the role conflict and role ambiguity that led to organizational stress for people in industrial contexts (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). This seminal role theory approach to stress led Kahn and his colleagues to frame the person-environment fit approach to stress, considering environmental demands and personal capacities. This line of social psychological research led to competing versions of the person-environment (PE) fit approach to stress. Jeff Edwards (1996) compared two competing versions, which are the environmental supplies and employees values (S-V fit) version and the environmental demands and employee abilities (D-A fit) version. He concluded that both versions of the P-E fit approach add value and neither should be discarded in future research.

Richard Lazarus (1966) was a second psychologist at work in the 1960s who forged a cognitive appraisal approach to psychological stress with particular attention to the coping process. The two key elements of his approach are cognitive appraisal and individual coping. Lazarus theorized that individuals would vary in the degree to which they perceived events and persons in their environments as stressful. Thus, what was viewed as stressful by one person would not be by another. Hence, this cognitive appraisal process was critical to determining the degree of a person's arousal, or stress. The second element of his approach was the coping process and here he posited two primary forms of coping. Problem-focused coping attended to addressing or managing the source of the stress; that is, the stressor or demand. Emotion-focused coping on the other hand drew the person's attention to their own emotional and affective responses to the stressful person or event. His key contribution may be in bringing attention to the importance of both environmental change (problem-focused coping) and personal adjustment (emotion-focused coping).

The third psychologist during the era of the 1960s to forge an approach to stress was Harry Levinson (1973) who went deeper into the psyche than did Lazarus. Levinson's psychoanalytic approach to stress hinged on Freudian theory as the basis for understanding the unconscious personality forces at work within the person. For Levinson, the two elements that interacted to cause stress were the ego-ideal and the self-image. The ego-ideal is the embodiment of a person's perfect self and is composed of characteristics from idealized parental and authority figures that a person most admires. The self-image is the more realistic elements of the person that are positive as well as negative in nature; that is, strengths and limitations or weaknesses. Because these are unconscious elements of a person's personality, they are not sharply nor clearly defined. However, the tension between the ideal self and the real self are the essence of stress within Levinson's approach. If well managed, the tension can lead to growth and advancement whereas if not well managed, the tension can lead to self-destructive acts.

The Conservation of Resources approach (COR theory) to stress was conceived by Steven Hobfoll (2001) as a way to examine the stress process of resource gains and resource losses. Hobfoll theorized that investments made by people would lead to resource gains while preventing resource losses. COR theory is a robust theory of stress when considered from psychological, physiological, faith(s)-based and wealth (financial) perspectives. Drawing on biblical sources such as the Book of Job in Old Testament scripture as well as psychological and natural scientific research, Hobfoll finds strong support for his theory. One application to the sabbatical leave for academicians as an investment by universities and faculty was able to demonstrate who gained and how much as a result of the sabbatical (Davidson et al., 2010).

While I/O psychologists benefit from a broad knowledge of stress and the varied approaches and theory about its cause, consequences, and preventive management, probably PE fit and COR theory are the two approaches most applicable and useful for the I/O psychologist. We compare

and contrast these two approaches after first exploring national culture and then the stress process within preventive stress management.

Globalization and Stress

In the 2005 national bestseller, *The World is Flat*, author Thomas Friedman describes ten forces that have flattened our world, one of which he calls the *Steroids* because they amplify and turbo-charge the nine other flattening forces. The power of steroids lie in their ability to enable technologies to conduct collaborations in ways that are digital, mobile, virtual, and personal (Friedman, 2005). Ten years have passed since this book was first published and we have witnessed (many of us firsthand) how steroids have magnified changes in our businesses and personal lives. In order to keep pace with a dynamic environment and increased globalization, organizations are consistently readjusting and changing in an effort to remain competitive. In addition, work assignments are becoming more project-based, requiring teamwork with colleagues, often across time and space. As such, this holds major implications for the firms of today.

Due to technological advances and the boundary-less world we live and work in, globalization presents a challenge to many of the organizations and managers of today. Globalization requires businesses to develop innovative organizational structures and problem solving approaches to address a myriad of factors including role clarity, job satisfaction, decision-making quality, leadership, career development, and performance feedback (Bell & Kozlowski, 2002). Additionally, rampant global economic competition has led to increases in downsizing and job outsourcing which contribute to distress in the workplace (Hargrove, Cooper, & Quick, 2012).

In its most general sense, globalization refers to the interconnectedness of world economies (Bhagat, Segovis, & Nelson, 2012). Ohmae (1995) refers to globalization as an environment in which trade among nations occurs as they are free from borders and barriers. In yet another interpretation, to be effective on a global level, organizations must integrate locally and establish cross-boundary relationships across many functions and divisions within the organization while adhering to a global strategy (Kanter & Dretler, 1998). Parker (2005) defines globalization as follows:

Globalization is a process whereby worldwide interconnectedness in virtually every sphere of activity are growing. Some of these interconnections lead to integration/unit worldwide; others do not. Together global interconnections and the relationships they forge represent a historically unprecedented process that is rapidly reshaping the context for many activities (Held et al., 1999). The result is blurred boundaries within and between organizations, nations, and global interests (p. 5).

Globalization affects multinational companies at two levels: economic and social-cultural (Bhagat et al., 2012). Economic globalization pertains to the exchange of capital, goods, and services among organizations throughout the globe; whereas, social and cultural globalization refers to the exchange of ideas and information, in addition to the individuals who hold these ideas and information. Thus, globalization is fraught with demands and challenges not just for the organization, but for the individuals within the organization as well. Due to the rapid pace of global changes, employees from all levels of the organization are exposed to stress factors, such as headaches, weight gain, and heart disease which can impact both their psychological and physical health (Bhagat et al., 2012; Zellars, Perrewé, Rossi, Tepper, & Ferris, 2008). In addition to health factors, work-related stress can adversely impact organizations financially, costing organizations billions of dollars in loss of productivity, absenteeism, and disability claims (Perrewé et al., 2004). In another study conducted by Perrewé and her colleagues (2002) on the effects of work stress across cultures, they found that

role conflict, role ambiguity, and burnout differed significantly among the nine cultures investigated. Factors such as these make the case for the importance of trying mitigate work stress and developing preventive measures that can be used globally.

Stress is a highly complex and ambiguous term. Hence, prior to engaging in a discussion of stress, it is important to clearly understand the domain of stress. Quick and his fellow colleagues (2013) posed several key terms and definitions related to the stress in an effort to bring clarity to the construct. These terms are *stressor* or *demand*, *stress response*, *eustress*, and *distress* or *strain*. A stressor or demand is the physical or psychological stimulus that triggers a response within individuals. Stress response is defined as “the generalized, patterned, unconscious mobilization of the body’s natural energy resources when confronted with a demand or stressor” (J. C. Quick et al., 2013, p. 13). These responses can be positive or negative. Eustress is positive and healthy stress that can motivate individuals to perform at optimal levels; whereas, distress or strain refers to the negative and unhealthy consequences of the stress response and can occur under conditions of both low and high stress arousal (Hargrove et al., 2011; J. C. Quick et al., 2013).

As organizations struggle to retain a competitive advantage amidst the increasing and turbulent global current, it becomes important for researchers to understand how organizational stress impacts the well-being of employees across national borders and cultures (Bhagat et al., 2010). Organizations must be able to comprehend the cross-cultural and cross-national implications of work stress as we move to a more global society. For example, a large multinational corporation with subsidiaries in the United States and France must know the societal and cultural roles at play that may influence its human resource practices. Additionally, managers and top executives need to understand the implications of a diverse workforce and how culture, religion, and values may differ among countries. Thus, national characteristics serve as important contextual and cultural conditions that must be considered when attempting to understand the influence of stress on employee and work outcomes. In addition to distinctiveness across countries and cultures, the uniqueness in culture within an organization must be considered.

Culture is “the collective programming of the mind which distinguishes one group or category of people from another” (Hofstede, 1993, p. 89). Hofstede (1993) identified five cultural dimensions by which nations differ that can be used to predict how a society operates and how management processes are applied in organizations. These dimensions are: (a) power distance; (b) individualism versus collectivism; (c) uncertainty avoidance; (d) masculinity versus femininity; and (e) time orientation. Much of the research on work and organizational stress has been conducted in countries that have a strong preference towards the cultural value of individualism (e.g., United States, United Kingdom, France, and Germany) (Bhagat et al., 2010), suggesting that there is a need for researchers to explore the effects of stress in non-Western societies as well. Understanding and managing cultural diversity is integral to the success of any organization, as companies working across borders are increasingly seeing employees of different races, nationalities, cultures, education, and socioeconomic status. Most companies recognize the importance of cultural patterns and acknowledge the movement towards a global society; hence, there is a need for cultural awareness and education to minimize stress and stressful events that can impede an employee’s career trajectory. In an ideal world, there would be no risks associated with an individual’s job; yet, risks are present and can be costly to organizations. Thus, preventive stress measures and/or interventions are needed to assist employees dealing with distress and strain in the workplace to weaken the negative effects of job stressors in the workplace (Perrewé et al., 2004; Perrewé et al., 2005).

Preventive Stress Management

Preventive Stress Management is defined as “an organizational philosophy and set of principles that uses specific methods for promoting individual and organizational health while preventing individual and organizational distress” (J. C. Quick et al., 2013, p. 24). Simply, Preventive Stress Management is important in promoting the health of organizations and their employees, which results in better firm performance (Hargrove et al., 2011). As stress impacts both the organization and its members, an effective preventive stress management plan assesses the stressors to both the individual members of an organization as well as the organization as a collective entity. The Preventive Stress Management framework is rooted in the public health practices initially designed for use in preventive medicine. This prevention framework has three stages: primary prevention, secondary prevention, and tertiary prevention (J. C. Quick et al., 2013). Organizational prevention methods fit this framework too but are discussed separately.

Primary Prevention

The intent of primary prevention is to reduce or modify the causes of stress (J. C. Quick et al., 2013). Primary prevention targets individuals who are not at risk of negatively acting out due to stress, but seeks to engage them in positive reinforcing tools and techniques that make them less susceptible to distress. At the individual level, primary prevention utilizes stressor-directed strategies as a means for preventing distress and strain in the daily management of responses to stress. As shown in Table 1, there are three categories of stressor-directed intervention strategies: (a) managing personal perception of stress; (b) managing the personal work environment; and (c) managing lifestyle (J. C. Quick et al., 2013). Perception is a critical component to understanding stress. In order for a person or event to be a cause of stress, an individual must perceive an incident as stressful or demanding. Thus, if an individual wishes to change his/her reaction to a stressor or reduce his/her stress response, then one's perception of stress — the way one thinks and behaves — must be altered. Activities such as constructive self-talk and effective time management may be utilized to help individuals address their cognitive and behavioral responses to stressors to promote positive stress responses. A strong social support system is another primary prevention method that can assist individuals in buffering the adverse effects of stress. This support may take the shape of being an empathetic and caring listener or having access to individuals from which behavior may be learned and modeled.

Secondary Prevention

Secondary prevention is aimed at changing how individuals and/or organizations respond to stressors (J. C. Quick et al., 2013). The aim of secondary prevention is to intervene early enough so that individuals who are at risk of negatively acting out due to stress are given the proper coping tools and mechanisms which can be used to alter the stress response before it escalates into something more serious and problematic. Thus, these coping tools serve as resources that individuals can equip themselves with, which can be utilized as needed when responding to stressful factors. The secondary prevention categories available to individuals in stressful situations are: (a) relaxation training; (b) spirituality and faith; (c) emotional outlets; (d) physical outlets; and (e) nutrition (J. C. Quick et al., 2013). According to Hargrove and his colleagues (2011), secondary strategies are beneficial when employees experience high levels of stress consistently. Hence, individuals can be trained to use relaxation and/or meditation techniques as a means for coping with distress and strain. Research has found that spirituality and faith are important to individual well-being and health (Emmons,

2003). Emotional outlets such as talking, writing, and acting are all ways that individuals can vent and release pent-up emotions which have been shown to lead to “catharsis and healthy responses in the mind and body” (J. C. Quick et al., 2013, p. 174). Lastly, physical fitness and nutrition programs have been found to increase individual well-being, resulting in reduced distress symptoms (Hargrove et al., 2011).

Tertiary Prevention

The goal of tertiary prevention is to heal the individual or organization symptoms of distress (J. C. Quick et al., 2013). Hence, tertiary prevention attempts to treat individual symptoms of distress and mitigate the negative consequences to the organization caused by individual distress (Hargrove et al., 2011; J. C. Quick et al., 2013). With tertiary prevention, the onus is on management to monitor the behaviors of their employees who may be experiencing distress or strain, using metrics such as productivity data and workers’ compensation rates (Adkins, 1999; J. C. Quick et al., 2013). Tertiary prevention methods can be categorized into three groups: (a) emotional health in the workplace; (b) psychological interventions; and (c) career counseling. Thus, as managers identify the risk signs of distress such as anxiety and depression, they should work to encourage their employees to get help (Hargrove et al., 2011).

Table 1 Preventive Stress Management for Individuals

Primary Prevention: Stressor-directed	Secondary Prevention: Response-directed	Tertiary Prevention: Symptom-directed
<ul style="list-style-type: none"> •Managing personal perceptions of stress •The positivity ratio •Gratitude expression •Learned optimism •Constructive self-talk •Selective ignoring •Managing the personal work environment •Planning and time management •Overload avoidance •Social Support •Managing lifestyle •Maintaining a balance •Leisure time 	<ul style="list-style-type: none"> •Relaxation training <ul style="list-style-type: none"> •The relaxation response •Meditation •Biofeedback training •Spirituality and faith •Emotional outlets <ul style="list-style-type: none"> •Talking it out •Writing it out •Acting it out •Physical fitness <ul style="list-style-type: none"> •Aerobic fitness •Muscular flexibility •Muscle strength training •Nutrition 	<ul style="list-style-type: none"> •Emotional health in the workplace •Psychological interventions •Symptom-specific programs •Individual counseling •Group approaches to tertiary prevention •Career counseling

Note. Examples of stress prevention techniques. Adapted from Preventive Stress Management in Organizations (Exhibit 10.1, p. 149) by J. C. Quick, T. A. Wright, J. A. Adkins, D. L. Nelson, and J. D. Quick, 2003, Washington, DC: American Psychological Association. Copyright 2003 by the American Psychological Association.

Prevention at the Organizational Level

At the organizational level, the purpose of Preventive Stress Management is to change the behaviors of the organizations so that its personnel are protected from physical, psychological, emotional, and social harm. As such, the organization strives to find a balance where it can assist individuals in developing eustress, reducing distress, and optimizing stress to enhance their well-being (J. C. Quick et al., 2013). These prevention schemes may include: organizational health centers; job redesign, career development, ergonomic office design, and work-life programs. Such programs place the responsibility on leaders to protect and maintain individual and organizational health by monitoring environmental factors that can induce stress.

In addition to organizational prevention methods that protect the individual, organizational interventions have been designed to assist with building and cultivating relationships throughout the organization. The premise of these interventions is that healthy relationships can act as buffers against the negative effects of stress. These intervention plans include: resonant leadership, goal setting, social support, teamwork, and an appreciation of individual diversity.

In addition to Preventive Stress Management programs, several theories and approaches to stress have been developed to help individuals cope with stress. As mentioned earlier two approaches that are more nascent in the literature and research on stress are person-environment (PE) fit and the conservation of resources (COR) theory. Both approaches are germane to this discussion on stress and globalization as these theories can easily be extended to the contextual conditions of culture and global economies. In the following section, we will explore PE fit and COR at a deeper level in an effort to understand how these approaches can be utilized in concert with the preventive stress model (TPSM) for organizations and individuals to manage stress.

Person–Environment Fit and Conservation of Resource Approaches to Stress

Many stress management prevention programs were developed by researchers of Western nations, leading some researchers to criticize the generalizability of these programs across cultures. Bhagat et al. (2012) provide several limitations to stress management interventions. They claim that stress management interventions are dominated by an individualistic perspective that limit organizational control processes. Their second concern is that too much emphasis is placed on distress in lieu of research exploring the role of eustress. Third, the influence of spirituality and religion as a coping mechanism has received scant attention. The fourth criticism asserts that the stress management model of interventions fail to fully comprehend and capture how individuals cope as well as the limited availability of other stress management interventions. Lastly, the researchers argue that there is a need to develop a more integrative and holistic approach to stress interventions (Bhagat et al., 2012). In an effort to address these concerns, we will demonstrate the usefulness of TPSM in conjunction with PE fit and COR approaches to stress from a global perspective.

Person–environment Fit

Person–environment fit is the congruence between a person’s characteristics and their work environment characteristics (Edwards & Shipp, 2007; Kristof-Brown, Zimmerman, & Johnson, 2005; Vogel & Feldman, 2009). The PE theory of stress argues that stress does not occur due to the person or environment separately, but that stress occurs because of the fit between the person and the environment (Edwards, Caplan, & Van Harrison, 1998; French, Caplan, & Van Harrison, 1982). PE fit includes two distinct types of fit: (a) supplies-values fit — needs, desires, or preferences of employees

are met by their jobs and (b) demand-abilities fit — knowledge, skills, and abilities match with the job requirements (Edwards, 1996; Kristof-Brown et al., 2005). A misfit between the person and the environment may result in two possible outcomes: (a) an adverse effect on psychological, physical, and behavioral norms and (b) an attempt to correct the misfit via coping or defense (Edwards et al., 1998).

Research on PE fit indicates that when supplies and values differ, strain increases Edwards (1996). This supports a fundamental premise of PE fit theory which suggests that when there is an excess of supplies on one dimension, this leads to a misfit on another dimension resulting in increased strain. In regards to demands-abilities fit, his findings indicate that when demanding jobs are paired with positions where there is a high degree of decision latitude, job satisfaction increases as individuals are able to utilize and demonstrate their skills and abilities (Edwards, 1996). In comparing supplies-values fit with demands-abilities fit, Edwards (1996) found that both forms of fit were related to strain; however, supplies-values fit had a stronger relationship with job dissatisfaction and demands-abilities fit had a stronger relationship with tension. These findings align with the first hypothesis of TPSM: “Intense, frequent, prolonged organizational demands increase the stress response in the people at work” (J. C. Quick et al., 2013, p. 107).

As organizations expand across borders, PE fit from a cultural perspective is of great importance. Employees who are members of the dominant sociocultural group (i.e., the power holders) of an organization will more easily assimilate into the organization in comparison to members from non-majority cultural backgrounds (Cox, 1994), resulting in decreased satisfaction and motivation, role ambiguity, and higher levels of distress. Several organizational prevention strategies aimed at protecting employees can be expanded to integrate cultural and global dimensions impacting individuals in the workplace. Job redesign, organizational health centers, career development, and work-life programs can circumvent some of the deleterious effects of a cultural PE misfit. Job redesigns are intended to “improve person-job fit and to increase the job incumbent’s passion, positive motivation, and challenge stress” (J. C. Quick et al., 2013, p. 116). Career development suggests that employees work closely with management in developing a career path that exposes the employee to global growth and development opportunities that will enhance their knowledge, skills, and abilities. Work-life programs and organizational health centers work in concert to provide a holistic preventive plan that seeks to improve employee health both mentally and physically. In a study of Canadian undergraduates, researchers found that intrinsic spirituality had a negative effect on psychological distress and that culturally congruent coping behaviors help to increase psychological well-being (Kuo, Arnold, & Rodriguez-Rubio, 2014). Thus, at the individual level, secondary preventions such as relaxation training as well as spirituality and faith interventions provide employees with the mechanisms to help them cope with distress.

Conservation of Resources Theory

Conservation of resources theory proffers that the loss of resources is the key component in the stress process (Hobfoll, 2001). In determining the stress process, COR theory relies on the objective and cultural nature of the environment. Simply, COR theory considers the fit among personal, social, economic, and environmental resources with external demands (Hobfoll, 2001). PE fit is focused on the fit of resources to demands, it singularly focuses on individual perception, whereas COR theory examines the actual fit of resources. According to COR theory, stress occurs when “resources are threatened, lost, believed to be unstable, or where individuals and groups cannot see a path to the fostering and protection of their resources through their individual or joint efforts” (Hobfoll, 2001, p. 240). Hence, individuals endeavor to retain, protect, and build a reservoir of resources and are threatened by the potential loss of these resources (Hobfoll, 1989).

One theory that is somewhat related to COR theory is Fredrickson's (1998, 2001) broaden-and-build theory which investigated the role of positive emotions in broadening thoughts and behaviors. Specifically, the broaden-and-build theory posits that an individual's experience of positive emotions broadens "momentary thought action repertoires" (Fredrickson, 1998, p. 307), which builds personal resources that can be leveraged in the future when needed. These resources may include: physical resources, intellectual resources, and/or social resources which can be instrumental in the study of how humans flourish (Fredrickson, 2001). Empirical evidence has demonstrated the positive relationship between positive emotions and various measures of success and well-being (Lyubomirsky, King, & Diener, 2005). Thus, the broaden-and-build theory serves to explain how positive employees play a critical role in positive organizational change (Avey, Wernsing, & Luthans, 2008).

TPSM provides many avenues in which individuals can build their reservoir of resources. In their research on non-Western organizations, Bhagat, Steverson, and Segovis (2007) found that many organizations structured their preventive stress programs to fit with the cultural demands of their societies. Social support systems, learned optimism, the positivity ratio, and spirituality and faith aid individuals in coping with the negatives aspects of distress and strain. In a study on Australian firefighters, Tuckey and Hayward (2011) found that camaraderie, an occupational specific resource, had a protective effect on psychological distress. Their findings indicate that camaraderie serves as a buffer between emotional demands and psychological health, such that, as emotional demands increased, camaraderie levels also increased. In another stream of research on culture and social support, differences were found in how individuals from different cultures used their support systems in relation to stress. Koreans in addition to Asians and Asian Americans in the United States were found to rely less on their social support system as a means for coping with stress in comparison to European Americans (Taylor et al., 2004). Findings such as these reinforce the need for researchers and practitioners to attend to the cultural influences of stress and stress prevention programs within organizations.

Discussion

First framed in 1915 by Walter Bradford Cannon, stress is now, a century later, linked to seven of the top ten leading causes of death in the developed nations, starting with heart disease, the #1 cause of death. In addition, stress plays a direct as well as indirect role in cancer, stroke, injuries, suicide/homicide, chronic liver disease, and emphysema/chronic bronchitis. Yes, stress can be the kiss of death and it can also be the spice of life, enabling us to grow stronger, develop mastery of ourselves and the world in which we live, and experience the thrills and excitement that life has to offer.

At one point in the late 1900s, there were questions about whether stress had become a workplace epidemic. There are actually two sides of that argument, as there are always at least two sides of any empirically determined reality. If one accepts that there was, or is, a workplace stress epidemic, then the best response is found in prevention. We do not heal or cure disease epidemics, we rather stop them through preventive intervention. That has been our thesis for the past five decades, starting in the mid-1970s and the framing of the theory of Preventive Stress Management. What has emerged strongly since the late 1990s and the emergence of the positive agenda, to include positive psychology, positive organizational behavior, and positive organizational scholarship, are two revelations. First, we now have a better understanding of the positive side of stress and the benefits that stress offers individuals in their growth, development, and mastery of life's demands. Second, the positive agenda has produced new psychological tools that enable individuals and groups to develop the skills and power of positive thinking.

As noted above about globalization, I/O psychologists must recognize the importance of cultural factors to understand stress. In Appendix 1 below, one of the co-authors (Tina Quick) shares her personal experience as a cross-cultural trainer, on how stress relates to cultural and contextual factors, based on her many years working and living abroad. These personal experiences illustrate the role of culture on the perception and experience of stress in several countries outside the United States.

Overall, these positive advances in the domain of stress, especially workplace stress, offer the industrial and organizational psychologist both theoretical backdrops and practical tools for enhancing occupational health. While occupational health and wellbeing in the workplace are not the only concerns of the I/O psychologist, they certainly are among the prime concerns. They are principal concerns of the occupational health psychologists, allies of I/O psychologists in the workplace.

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Appendix 1: Cultural Commentary on Stress

Tina L. QUICK

The expression, *everything is cultural*, is a misnomer. According to Useem, Useem, and Donahue (1963), "Culture has been defined in a number of ways, but most simply, as the learned and shared behavior of a community of interacting human beings" (p. 169). Some examples of cultural traits would include how people view time. Edward T. Hall in his book, *The Silent Language* (1959) explains that societies are either monochronic and feel that punctuality is important or they are polychronic and have a more flexible view of time. Geert Hofstede's (n.d.) work shows that some cultures place a high value on individual achievement (individualism) rather than the effort of the group (collectivism). Trompenaars and Turner (1998) studied cultural differences in how people view truth and integrity. They considered what held greater value between various cultures: following rules universally agreed upon by the culture (universalism) or an obligation to relationships (particularism).

Not all differences among people, however, are due to culture. Some values are considered to be 'universal' and are shared by many different groups of people. For example most people across the globe will affirm it is important to eat well, get enough sleep, have a safe place to shelter and have access to good health care.

Other values and behaviors are simply personal traits and may be demonstrated by some people from many different groups. Having an affinity for a particular kind of food is a personal trait. Enjoying a shower rather than a bath or going to bed early are personal traits. In fact, it is dangerous to categorize an individual's personal trait as being cultural. That is the danger of stereotyping. Stress is universal and our adaptive and maladaptive responses to it can be personal but highly influenced by the culture we have grown up in.

Among other things including gender and personal experience, a person's cultural background defines much of the way we perceive, feel, believe and behave, including how we react to stress. Stress is an everyday fact of life with stressors coming from within one's own psyche as well as external sources. As much as we try to avoid stress we cannot. But it is fascinating to look at how different cultures try to minimize or deal with inevitable stress.

I have had the wonderful opportunity of being exposed to many different cultures, both while growing up and as an adult; domestically as well as abroad. It is true that in large countries such as the U.S. many different cultural sub-groups exist within our own larger culture. I think back for example when my husband and I were working for the U.S. government's Indian Health Service in a small town in eastern Oklahoma.

Historically, it is a well-known fact that many Native Americans have dealt with boredom, stress and unemployment by way of the bottle. Alcoholism is a huge societal issue on reservations and in communities such as the one we spent time in. We see abuse of alcohol in many other countries as well where life is harsh, unemployment is high and opportunities to improve one's conditions are low. But often times, it is never talked about. Other maladaptive behaviors we tend to see in these types of settings are high incidences of drug abuse and domestic violence.

Then there are societies who wish to avoid stress as much as possible and do everything humanly imaginable to ensure that peace is maintained. After accepting a job offer in Geneva, Switzerland and upon hearing how many rules and regulations the Swiss enforced on their citizens and visitors living in their country, my husband decided that I would get along much better with the French just across the border and that was where we should reside. He was trying to keep *my* stress level down! I was certain he made the right decision when I learned through the American Women's Club of

Geneva's Newcomer Workshop that there was an actual law on the books in Switzerland that a male apartment dweller was not allowed to urinate while standing up after the hour of 10 p.m.!

Our time spent in Kenya made me realize that the stress response is variable among different cultures. The Africans we interacted with on a daily basis, those who worked in our home or at my husband's office, appeared calm and serene, more content with their place in life and very pragmatic even in matters of death. Many were of a strong religious background and attributed their joys and sorrows to God's plan for their lives. They received news of the death of a loved one with acquiescence. Then again, we also witnessed different cultural patterns among the various tribes of the land. One day we heard loud wailing coming from our next door neighbor's home, a man from a tribe different from the one my domestic employees all had shared heritage in. I was told that wailing and flogging one's self on the chest was the custom of this particular tribe upon someone's death. This was to be kept up for a certain number of days and sometimes, because of the intensity of the effort, mourners would be hired to come in and carry on the tradition while the family members got some much needed rest. This was their way and there was an inherent peace felt by following the ancient traditions.

The Kenyans daily lives were filled with humming and singing as they went about their duties, music and dancing whenever there was a gathering, and getting together with extended family whenever possible. They found peace, serenity and a sense of belonging when they were with other people important to them.

I also saw how the modern day Kenyan executive and his office staff experienced the stressors of having deadlines to meet, papers to get out and meetings to get to. Music was not playing in their offices, extended families were back in the country home where they grew up before seeking work in the big city. While Kenya is a very polychronic society and time is viewed as being more flexible than say in the U.S., these executives were often plagued with health issues such as stomach ulcers and high blood pressure.

This was also what Hofstede would call a high power distance society—meaning respect is valued more than equality — which can certainly generate various stressors in its own regard. I was writing a trade book on golfing in Kenya for an African publishing company. The editorial team and I were directed by the managing director to come in at 9 a.m. on the following Monday for a final review of the galley proofs and prospective launch of my book. The team pointed out to the director that Monday was a national holiday when all other businesses would be closed. Not to be phased by this news, he bellowed that we were all to be there as directed. That Monday all but the director were seated around the conference table. We waited for 30 minutes and then deliberated as to what we should do. It was clear none of the African team were willing to leave but no one wanted to go with my suggestion which was to call him up. Since I did not consider myself to be part of this hierarchy, I picked up the phone and dialed his number. Mouths dropped open and sweat began to form on the Africans' brows.

The director's wife answered the phone and informed me her husband was still in bed nursing a hangover from a party the night before. Having been roused out of my own bed that morning for this meeting I had no sympathy whatsoever for his condition and asked to speak to him. I demanded he come to the office for the meeting as the rest of us were not going to waste our efforts and have to come back another time. He willingly conceded. I felt justified by my actions but it was clear from looking around the table that my African colleagues were anxious and unsettled over the whole affair. As it turns out, the director was apologetic and remorseful for calling everyone in on a holiday and was very congenial to the staff and me for the duration of what turned out to be a very successful meeting.

What causes stress and what is considered permissible to talk about those causes differs a great deal from culture to culture. As my colleague, Dr. Zareen Karani Araoz, a Senior Executive Coach, Global Leadership Development Specialist, and President of Managing Across Cultures, recently commented, “In some cultures, such as (western) Indian culture, one does not speak of personal stress to anyone other than close friends or family. It is otherwise viewed as being weak or inappropriate. Whereas an American might be more self-reliant and prefer to discuss how to deal with work or life stress with a counselor, coach or other recognized channels”.

I see this in the field of work I do today — the stress of transitions. Culture shock is now universally acknowledged as a legitimate cause for feelings of stress. It is no surprise that American international businesses were the first to recognize and accept that international transferees needed assistance in managing the stress of transition. Hence specialized pre-departure and relocation trainings were developed. Dr. Araoz went on to say, “For years in India, senior business people hesitated to even say that they felt any stress of going into a different culture or dealing with people from different cultures. Today, with globalization, and so many Indians studying abroad, it has become more acceptable to provide for (and budget for) this kind of support for the stress executives experience” (Araoz, personal communication, n.d.).

We have come to understand that the anxiety, confusion, isolation and even depression international transferees typically feel is normal and predictable and, with training can be managed. This is why I wrote the international student guide book, *The Global Nomad's Guide to University Transition* (T. L. Quick, 2010). Once we understand that stress is a normal part of any major life transition, we can be prepared for it and manage it with fewer surprises.

Learning what triggers our own stress response may be helpful in understanding what role culture plays. I've come to appreciate the wisdom of my husband's insights to my own personality and past cultural experiences. The French and I got along quite well, at least most of the time.