
Developing Sustainable Leaders Through Coaching and Compassion

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By integrating recent findings in affective neuroscience and biology with well-documented research on leadership and stress, we offer a more holistic approach to leadership development. We argue here that leader sustainability is adversely affected by the psychological and physiological effects of chronic power stress associated with the performance of the leadership role. We further contend, however, that when leaders experience compassion through coaching the development of others, they experience psychophysiological effects that restore the body's natural healing and growth processes, thus enhancing their sustainability. We thus suggest that to sustain their effectiveness, leaders should emphasize coaching as a key part of their role and behavioral habits. Implications for future research on leadership and leadership development are discussed, as well as implications for the practice of leadership development and education.

One purpose of management education is to develop people to be leaders of organizations and institutions for the future. The manner in which we approach the development of leaders is largely dependent on our concept of leadership. A variety of leadership theories have been offered over the past several decades (see Yukl & Van Fleet, 1990). "Great person" theories of leadership seek to understand what an effective leader does (Bennis & Nanus, 1985) or what dispositional characteristics enable a person to be a leader. These characteristics range from cognitive ability (i.e., general g) to traits (e.g., extroversion), motives such as McClelland's (1975) need for power or charisma (Conger & Kanungo, 1987; House, 1977), or transformational leadership style (Bass, 1985, 1990). A contingency theory of leadership tries to explain what types of leaders are needed for organizational effectiveness in various settings (Bass 1990; Boyatzis, 1982;

Fiedler, 1967; Hersey & Blanchard, 1969; Kotter, 1988; Yukl, 1998). More recent approaches to understanding leadership (e.g., vertical dyad linkage or leader-member exchange) seek to understand relational aspects, including the leader's ability to interact with others (Dansereau, Graen, & Haga, 1975; Kelly, 1992; Kram & Cherniss, 2001). These theories are the basis for our efforts to develop leaders; however, few if any theories of leadership have considered physiological aspects.

By integrating the latest findings in affective neuroscience with well-documented and recently discovered findings in biology and stress research, we expand the discussion of leadership and leadership development beyond previously considered factors. Utilizing a more holistic approach to leadership development, we propose that leaders may better sustain themselves by balancing the potentially stressful effects of exercising leadership with the ameliorative effects of coaching the development of others.

The structure of this article is as follows: We begin by exploring the potential effects of stress from performing the leadership role. We then illustrate how this threatens leaders' ability to sustain themselves over time. Going beyond the traditional view of coaching as a means of developing

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others as leaders, we offer a new perspective—one suggesting that the process of *coaching others* may actually allow leaders to increase their own sustainability as a result of the physiological effects of experiencing compassion, which can serve as an antidote to stress (see Figure 1). We also offer other potential benefits (in addition to a potential risk) of experiencing compassion from coaching others, and acknowledge other means of experiencing compassion outside of the coaching relationship. Finally, we conclude with a discussion of the implications for future research on leadership and leadership development, as well as implications for leadership development and education.

LEADERSHIP, POWER STRESS, AND THE BODY'S RESPONSE

Leadership requires the exercise of influence or power (Kotter, 1982; McClelland, 1985; Yukl & Van Fleet, 1990). It requires having an impact on others and making things happen. It also involves a degree of responsibility for the organization. Further, the higher a person is elevated in an organization, the more “power” is involved in their role (Kotter, 1979), because they must influence the behavior and decisions of people upon whom they depend for organizational performance and for whom they are responsible. Success and effectiveness in leadership positions have been shown to be predicted by a leader’s power motivation (McClelland, 1985; McClelland & Boyatzis, 1982; Fontana et al., 1987; Jenkins, 1994; Jacobs & McClelland, 1994) when modified by unconscious and conscious self-control.

The exercise of leadership does not require that a person be in a powerful position (i.e., the boss). For example, a person could show thought leader-

ship by declaring an innovation. But both involve influencing others and, therefore, the use of power—the former to get compliance or inspire performance, the latter to get consideration or acceptance of ideas. It is the use of power or influence that distinguishes leadership, not the power differential between the leader and others in terms of formal organizational authority (Quinn, 2004). It is precisely this behavioral or functional requirement that distinguishes individuals who are exercising leadership. When this is not viewed as part of the role or activity, the person is less effective (McClelland, 1975; McClelland & Burnham, 1976). Furthermore, such influencing or exercising of power is a major role requirement of individuals in management or executive jobs (Kotter, 1979).

Being in situations that are perceived to be uncontrollable, those involving social evaluation (i.e., others observing and judging), and involving commitment to reaching important or salient goals or tasks, or being in situations that merely anticipate events invoking these perceptions and feelings seems to provoke stress more than being in other types of situations (Dickerson & Kemeny, 2004; Sapolsky, 2004). Because individuals in leadership roles have to influence others upon whom they are dependent so that they might do their jobs, and since they may feel responsible for the collective effort and desired progress of the organization, they are frequently, if not daily, in situations that invoke stress. That is, they are personally working on things that are important to them, somewhat uncertain, and that often involve others watching or critiquing. Each condition may invoke stress.

This suggests that leaders are under a steady flow of stress related to the exercise of power and its responsibility. This could be labeled chronic stress, with episodes of acute stress (emerging

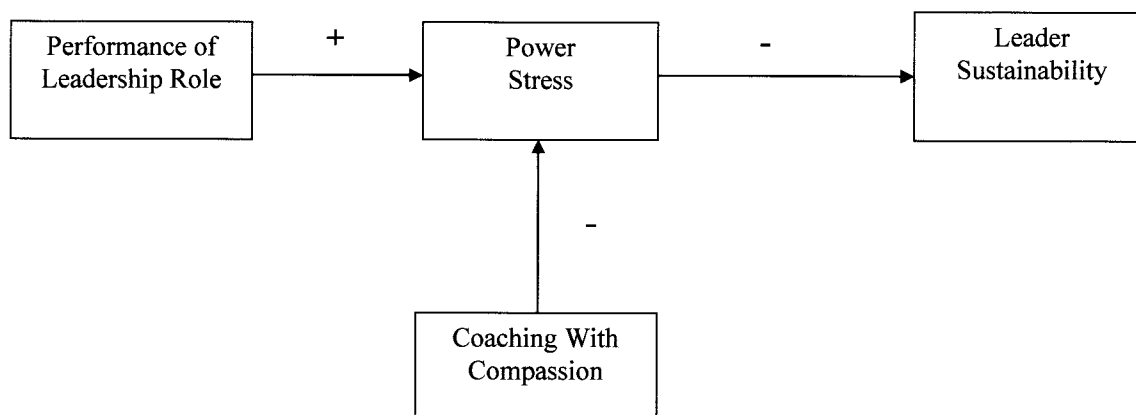


FIGURE 1
Theoretical Model of Sustainable Leadership and Compassion

from a sudden or unexpected crisis). This combination of stress is said to increase the "allostatic load" on individuals (Dickerson & Kemeny, 2004; Ray, 2004; Segerstrom & Miller, 2004), which can lead to a variety of deleterious consequences.

As a result of this demand for influencing others and the increased responsibility of the position, leaders experience a form of stress called "power stress" (McClelland, 1985) to differentiate it from other causes or types of stress, such as stress that might result from loneliness, being rejected, fear of failure, or physical exhaustion. That is, *power stress* is part of the experience that results from the exercise of influence and sense of responsibility felt in leadership positions. In addition, to be effective as a leader requires the regular exercise of self-control: placing the good of the organization above personal impulses and needs (McClelland, 1975; McClelland & Boyatzis, 1982). This exercise of self-control is also stressful (Baumeister, Heather-ton, & Tice, 1994; Sapolsky, 1999, 2004), with or without the exercise of influence. In other words, to inhibit an impulse, deny an urge, or hold back from saying something requires exertion of energy, consciously or unconsciously. A person must take attention from other thoughts or functions to focus on controlling a thought, feeling, or action. To sustain the self-control requires constant exercise of this focus and energy. Therefore, effective leadership invokes both power stress and stress from the exercise of self-control frequently resulting in the likelihood of the experience of chronic power stress.

The experience of power stress, like most forms of stress, arouses the sympathetic nervous system (SNS), which initiates the classic fight or flight physical response (Cannon, 1935; Steele, 1973, 1977; McClelland, 1985; McClelland & Jemmott, 1980; McClelland, Ross, & Patel, 1985; McClelland, Floor, Davidson, & Saron, 1980; Schultheiss, 1999; Schultheiss & Brunstein, 2002; Schultheiss & Rohde, 2002; LeDoux, 2002; Sapolsky, 1999, 2004; McEwen, 1998).

Physiological Responses to Stress

When stress causes the arousal of the SNS, it results in increased secretion of multiple neurotransmitters including epinephrine and norepinephrine, associated with activation of the body through the hypothalamic-pituitary-adrenal (HPA) and the sympathetic-adrenal medullary axis (Sapolsky, 1999, 2004; LeDoux, 2002), as shown in Figure 2. Individuals experience an increase in systolic and diastolic blood pressure (DeQuattro & Feng, 2002; Sapolsky, 2004). At the same time, blood flow is redirected to the large muscle groups (Sapolsky,

2004). Meanwhile, even neural circuitry is reallocated, in the sense that the brain appears to focus on those circuits deemed necessary for survival (LeDoux, 2002) and activation of the right prefrontal cortex (RPFC) greater than the left prefrontal cortex (LPFC; Sullivan & Gratton, 1998; Davidson, Jackson, & Kalin, 2000; Davidson et al., 2003). Cortisol is secreted from the adrenal gland and causes dysregulation of inflammation (Davidson et al., 2003) in part by decreasing the body's ability to fight infection by suppressing cell-mediated immunity (McEwen, 1998; Saper, 2002; Rosenkranz et al., 2003). Cortisol has the additional impact of overexciting neurons and inhibiting the potential growth of neural tissue through normal neurogenesis (Erickson et al., 1998; Davidson et al., 2003; LeDoux, 2002; McEwen, 1998; Sapolsky, 1996, 1999, 2004; Zull, 2002).

This arousal of the SNS and activation of the right prefrontal cortex (greater than the left) have been shown to be related to specific emotions, such as fear and disgust (Davidson et al., 1990). Other negative affect, such as feeling depressed or anxious and "unpleasant engagement with the environment" has been related to such neural circuits (Tomarken et al., 1992) as well.

The chronic release of glucocorticoids (e.g., cortisol) from the adrenal gland has immunosuppressive effects (Dickerson & Kemeny, 2004; Miller, Cohen, Pressman, Barjkin, Rabin, & Treanor 2004; Petrovsky, 2001; Segerstrom & Miller, 2004). One study showed that people with the leadership motive pattern (i.e., high need for power, higher than the need for affiliation, and high in self-control as defined in McClelland & Boyatzis, 1982) showed consistently lower levels of immunoglobulin A (S-IgA), an accepted indicator of immune system functioning (McClelland, Locke, et al., 1982). However, it has also been shown that chronic stress may enhance immunoglobulin production, leading to an inappropriate antibody response, thereby increasing the possibility of autoimmune disorders, such as diabetes (Dickerson & Kemeny, 2004; Miller, Cohen, Pressman, Barjkin, Rabin, & Treanor 2004; Segerstrom & Miller, 2004).

Many common human diseases are attributed, in part, to overactivation of the SNS and what is often called a heavy "allostatic load," including hypertension, myocardial infarction, chronic infections and peptic ulcer disease, autoimmune disorders, obesity, influenza, cardiac arrhythmias, heart failure, diabetes, and susceptibility to cancer (Davidson et al., 2003; McEwen, 1998; Sapolsky, 1999, 2004). For example, hypertension in young adults is thought to be due to chronic stimulation of the SNS, activating norepinephrine pathways from the brain to the kidneys, skeletal muscle and heart

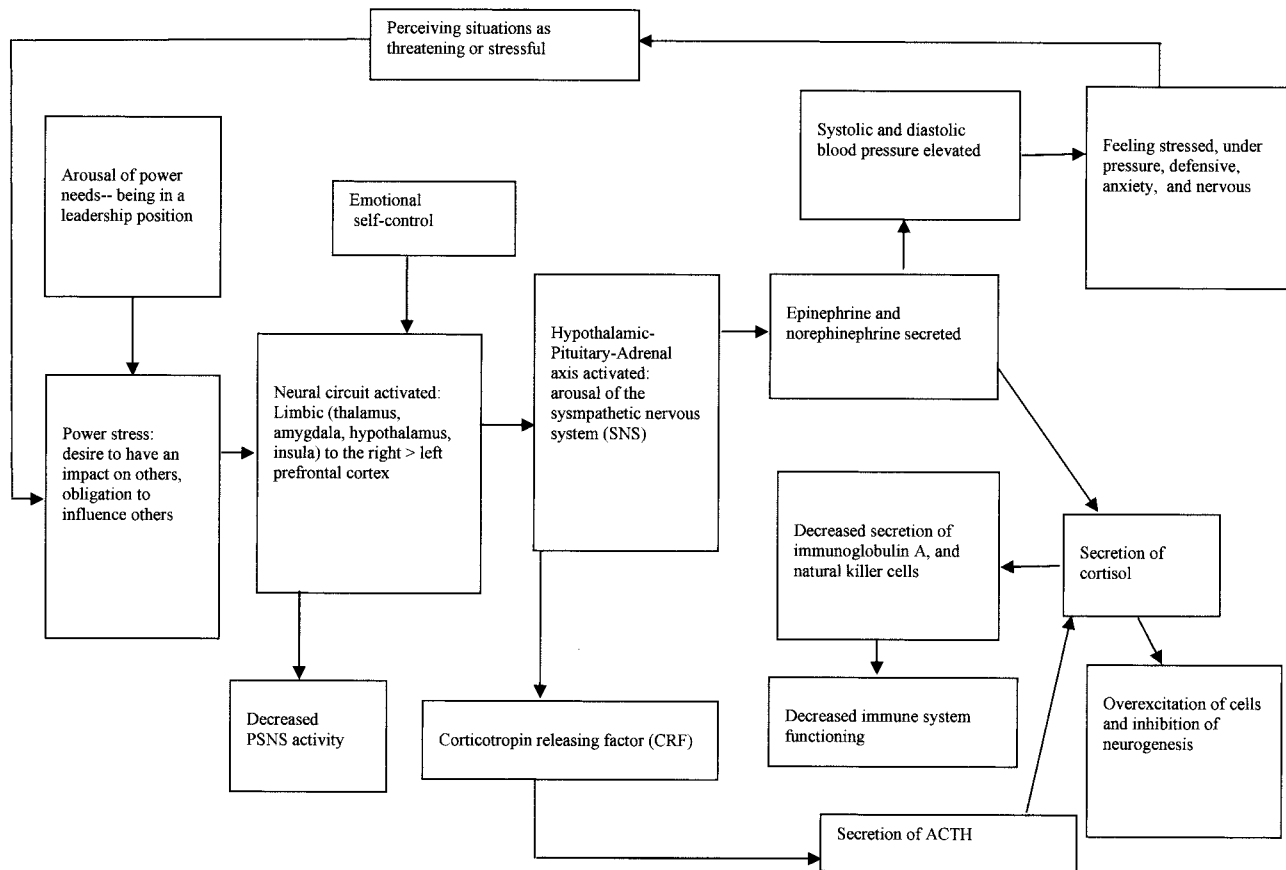


FIGURE 2
The Power Stress Syndrome

(DeQuattro & Feng, 2002). Peptic ulcer disease is caused, in part, by the presence of the bacteria *helicobacter pylori*. In this case, stress decreases the body's ability to defend and heal from such infections and promotes the formation of ulcers; the immune system is dysregulated by chronic stress, causing a decline in its function and ensuing disease.

Stress and Sustainability

Extensive studies have shown that the body's reaction to stress involves more than the stimulation of the SNS; it also involves the abatement of the parasympathetic nervous systems (PSNS; McEwen, 1998; Sapolsky, 1999, 2004). While the sympathetic nervous system is responsible for the body's ability to react quickly and effectively to physical or emotional provocation, the parasympathetic nervous system is responsible for recovery from such excitement and for keeping the body functioning at basal levels (i.e., at rest; McEwen, 1998; Sapolsky, 2004).

The arousal of stress prepares individuals to

deal with crisis in the short run. With chronic or repeated activation in the long run, it makes the body susceptible to infection, myocardial events, and gastrointestinal distress, as well as disturbing sleep patterns and other normal human functions (Sapolsky, 1999). Prolonged exposure to stress and arousal of the SNS does harm to the body, in effect draining one's energy and capability to function and innovate (McEwen, 1998).¹ McClelland (1985) summarized a study suggesting that people high in need for power will not experience power stress to the same degree as others. When in power-arousing situations or roles, they may experience sufficiently less power stress so as to not show the same deleterious effects of power stress on the immune system. But the negative effects of chronic power stress on other aspects of neuroendocrine, cardiovascular, or gastrointestinal functions of the

¹ Studies of women suggest a slightly different response to stress, but one that still involves arousal of the SNS (Taylor et al., 2002).

body, such as those resulting from being in a leadership role, have not been explored in this context.

Some scholars contend that genetic disposition determines which people are more likely to experience stress and its negative effects than others with such genes (Nicholson, 2002). While individual differences to stress are expected, as are differences in the severity of secretions emanating from arousal of the SNS, the dynamics of gene expression are believed to have more impact and may literally override inherited dispositions (E. H. Davidson, 2001; Lickliter & Honeycutt, 2003; Williams, Barefoot, Blumenthal, Helms, Luecken, Pieper, Siegler, & Suarez, 1997). Gene expression appears to be affected by environmental conditions, behavioral patterns, diet, and self-management activities (Williams et al., 1997). Therefore, many medical researchers now believe that genetic determination may have less impact on certain physiological processes than the summary of one's experiences and surrounding conditions.

Unchecked or unbalanced behavior in leadership positions, especially if the person is arousing their self-control in order to be effective, will result in damage over time. This may be experienced and labeled as "burnout," "burn up," "fatigue," an internal sense of restlessness or boredom, and other maladies and illnesses. Due to the impact of chronic stress on limiting neural functioning and learning, including the potential for future learning from neurogenesis (Sapolsky, 2004), we believe a leader who is effective but experiencing chronic power stress will lose some ability to adapt, learn, and stay healthy. As a result, that person will have difficulty sustaining the mental, emotional, perceptual, and behavioral processes that enabled him or her to be effective. In this way leadership, and in particular effective leadership, is less sustainable over time, (as shown in Figure 1). We therefore suggest that, *sustained effective leadership will be adversely affected by the power stress aroused in the process of fulfilling the leadership role.*

COACHING LEADERS TO BE EFFECTIVE

Research on how effective leaders developed in their careers continues to point to mentors, coaches, or those who helped them along the way (Goleman, Boyatzis, & McKee, 2002; Kram, 1985; McCall, Lombardo, & Morrison, 1988). The need for explicit training and development of managers and leaders began decades ago as a necessary human resource practice in most organizations—longer if you include the ancient Chinese or Greek practices prior to 300 BC. In medieval times, the

assumption was that a person would apprentice themselves to someone more experienced and get trained. Dalton and Thompson's theory of career development called upon people in the first stage of career development to be an apprentice. In a later stage of their career, they were to become a mentor and help to develop others (Dalton & Thompson, 1986).

Today, many of these types of relationships are subsumed under the title of coach. There are career coaches, executive coaches, life coaches, parent coaches, and of course, athletic coaches. London (2002) reported that there were approximately 10,000 professional coaches worldwide, and that an estimated 59% of organizations now offer coaching or developmental counseling to their managers and executives. Discussions in applied psychology, organizational development, and human resource management, suggest the number of people calling themselves coaches is far higher. In all of these efforts, programs, and human resource systems, the focus of the coaching is limited to the person being coached. Our focus here, however, is on a benefit of coaching that is not often noticed—the beneficial effect it can have on the person who is the coach.

THE LEADER AS COACH: COACHING WITH COMPASSION AS AN ANTIDOTE TO STRESS

For leaders to sustain themselves, the human response to stress must be ameliorated. We argue that the practice of coaching others for their development can have this effect. Coaching, along with the experience of compassion, should ameliorate the negative physiological and psychological effects of power stress. In this way, coaching with compassion is likely to enhance a leader's sustainability.

This major benefit of coaching is dramatically different than the typical benefit of coaching—developing a supply of leaders within the organization. This benefit derives from a focus on the needs of the leader serving as a coach.

We define *coaching with compassion* as "helping others in their intentional change process (i.e., achieving their dreams or aspirations or changing the way they think, feel, and act)" (Boyatzis, 2003). Coaching others for their development is different than coaching others strictly for the organization's benefit. The latter can be seen as an instrumental or compliance perspective in approaching others.

For reasons to be explained, we believe coaching with compassion elicits a dramatically different neural circuitry and hormonal process than other types of coaching, mentoring, or helping be-

havior. It involves a focus on the person being coached for their development, which may or may not include a direct benefit to the organization or holding the benefit to the organization as more important than the benefit to the individual.

Compassion

We define *compassion* as having three components: (1) empathy or understanding the feelings of others; (2) caring for the other person (e.g., affiliative arousal); and (3) willingness to act in response to the person's feelings. We view each of the components as necessary but not sufficient conditions of compassion. That is, compassion as we define it requires the presence of all three components.

This definition is similar to that recently offered by Bateman and Porath (2003), who drawing on the work of Frost, Dutton, Worline, and Wilson (2000) suggested that, "compassion is about allowing one's feelings to guide one's actions in response to pain experienced by others" (p. 131). Arousal of compassion as we define it does not assume or presume reciprocity, equal exchange, or transactional approaches to relationships. In other words, truly demonstrating compassion toward another is characterized by the absence of an expectation of present or future benefits to be received in return from that individual.

Our definition of compassion also has elements in common with other previously offered definitions of the construct. Kanov et al. (in press) defined compassion as having three elements, "noticing another's suffering, feeling the other's pain, and responding to that person's suffering" (p. 6). Webster's New Collegiate Dictionary (1963) defines it as "sympathetic consciousness of others' distress together with a desire to alleviate it" (p. 169). The American Heritage Dictionary (1969) defines it as "The deep feeling of sharing the suffering of another in the inclination to give and or support, or show mercy" (p. 271). The Buddhist definition contrasts it with love, "the wish that others may be free from suffering and the causes of suffering, while love is defined as the wish that others be happy and find the causes for happiness" (quote of Matthieu from p. 143, Goleman, 2003:4).

While our definition of compassion shares elements with each of these other definitions, a key distinguishing factor of our conceptualization of the construct is that it incorporates the desire to reach out and help others regardless of whether their condition is based on suffering and pain. It is closer to compassion as the emotional expression of the virtue of benevolence evident in Confucian philosophy (Van Norden, 1998), specifically the con-

cept of "ren" (Cua, 1998). Alternate reasons to help others may include others' relative distress from not moving toward desired goals or wanting to help them extend and reach for their dreams or new aspirations. Therefore, the experience of pain or suffering on the part of others is not a necessary condition for the demonstration of compassion as we are defining it here.

It is important to note that coaching others does not always involve compassion. Instrumental coaching occurs when the coach is offering or providing help to another person for a purpose other than the person's own desire to develop, for example, helping someone fill an organizational need or making an introduction to facilitate a person's career progress. If these acts are done without caring about the person's development, then we believe it would not invoke compassion (as we have defined it) and, therefore, not arouse the psychophysiological response beneficial as an antidote to the chronic power stress or the learning and health benefits of PSNS arousal. Providing advice to someone, or trying to convince that person to accept a particular assignment, or putting pressure on them to "fit in" or act more consistent with organizational norms appears to be focused on influencing the person to do something—coaching for compliance. As with the instrumental focus, we believe this will not result in arousal of the PSNS. As a possible subset of instrumental coaching, compliance coaching may engage the coach's power needs and, therefore, create an episode of power stress. Again, this is where our definition of compassion differs from other types of prosocial acts, such as proactive prosocial behavior, that have been shown to be linked to aggression (Boxer, Tisak, & Goldstein, 2004) and that would as a result actually arouse more power stress.

Ibarra (1995) discusses the distinction between instrumental and psychosocial functions of a relationship, offering that psychosocial functions enhance an individual's sense of competence, identity, and effectiveness in a professional role. Ibarra adds that these psychosocial functions stem more from the nature of the relationship than instrumental functions such as providing management exposure or advocacy for promotion. Such instrumental coaching relationships are more common when the relationships are represented by "weak ties" (Higgins & Kram, 2001). Higgins and Kram further contend that weak ties result in less effective mentoring relationships. Therefore, to engage in coaching where the primary concern is the achievement of organizational goals and getting the person being coached to fit into this scheme, it is likely that instrumentality will be aroused, which may or may

not contribute to increased stress arousal. But it will clearly not alleviate nor ameliorate the human stress response.

Coaching may involve both caring for the person's development *and* serving an organizational need. In such situations, the instrumental utility of the coaching act does not necessarily preclude the experience of compassion. But it also appears that many in helping roles are not invoking empathy and caring, but may instead be serving their own desires or goals. This is seen in the extreme and often hostile acts of those parents, who when watching their children's sports competitions, get too involved and start yelling obscenities at the children, the coaches, or the umpires. In such a situation, they are motivated by their own competitive needs, not the desire to watch their children grow and develop. Similarly, a college coach, who is part of the staff of an educational institution, may forget that his or her role is to develop players as students and athletes, not merely to win games. In the process, such coaches may regress to behavior that expresses predominant concern over winning and not development of the players' talent or character.

Finally, mandated coaching programs may merely lead to compliance which is an administrative response that adds to job responsibility and possibly more stress (or at the minimum indifference and apathy on the job). The mentoring literature (Higgins & Kram, 2001; Kram, 1985) suggests that such mandated programs invoke an instrumental mind-set. As discussed, this approach does not seem to produce effective mentoring, does not necessarily elicit compassion in the coach, and may actually cause additional stress.

Coaching With Compassion

Coaching with compassion, as we are describing it here, requires a caring relationship between the coach and the person being coached. A caring relationship is one in which the parties of the relationship are on the same emotional wavelength (i.e., are attuned to and in touch with one another's feelings), and have a commitment to the other person (Goleman, Boyatzis, & McKee, 2002). Through this process, a person's emotional intelligence enables them to establish and promote such caring relationships (Goleman et al., 2002). However, not all relationships between leaders and subordinates (or between those who coach others and those who receive that coaching) will necessarily be characterized as caring. Along these lines, leader-member exchange (LMX) theory (Graen, Novak, & Sommerkamp, 1982) suggests that leaders actually

differentiate between their subordinates and form different types of exchange relationships with each of them, rather than demonstrating a single leadership style across all subordinates. This is consistent with the previously discussed distinction between the instrumental and psychosocial support aspects of relationships discussed by Ibarra (1995). Originally referred to as the vertical dyad linkage (VDL) approach to leadership (Dansereau, Cashman, & Graen, 1973; Dansereau, Graen, & Haga, 1975; Graen & Cashman, 1975), the focus of LMX theory is the dyadic relationship between a leader and a subordinate. High-quality relationships have been characterized as consisting of relatively greater degrees of trust, respect, loyalty, liking, intimacy, support, openness, and honesty than is seen in low-quality relationships, which have been suggested to be more instrumental in nature and are more likely to be based on very specific (even contractual) obligations (Dansereau et al., 1975; Graen & Scandura, 1987).

Individuals who enjoy a high-quality relationship with the leader are said to be a part of the leader's "in-group." Those individuals, on the other hand, whose relationship with the leader is of low quality are said to be members of the "out-group" (Dansereau et al., 1975). While it has been suggested that, given that they have limited amounts of time and energy, leaders are only able to establish high-quality relationships with a select number of subordinates (Graen, 1976), others have offered that leaders should engage in intentional efforts aimed at forming high-quality relationships with all subordinates (cf., Graen & Uhl-Bien, 1995; Uhl-Bien, Graen, & Scandura, 2000). Recent work in the area of positive psychology and positive organizational scholarship (Cameron, Dutton, & Quinn, 2003; Dutton, 2003), suggests that, at an even more fundamental level, every interaction represents an opportunity to build *high-quality connections*, which Dutton and Heaphy (2003) suggest are characterized by feelings of vitality and aliveness, a heightened sense of positive regard, and felt mutuality (p. 267).²

The quality of a dyadic exchange relationship, as well as the quality of a "connection" can be measured from the perspective of either party of the exchange. In the case of LMX, prior research has most often measured the quality of the relationship from the perspective of the subordinate (Gerstner & Day, 1997). For our purposes, however, it is the perspective of the leader (coach) that is

² See also Baker, Cross, and Wooten (2003) for a discussion of energizing relationships in organizations.

most important, for the manner in which the leader perceives the coaching relationship will largely influence the benefits that he or she receives from that relationship.

For individuals who do not have a caring relationship with the leader, interactions may result in additional stress for both parties. If the leader creates an overall negative emotional tone in the organization, or is out of touch with the people around him or her, then a dissonant or toxic relationship evolves (Goleman et al., 2002). While the specific relationship may not be "bad," the creation of an overall negative emotional tone in the organization or sense of disassociation from the leader results in defensiveness in behavioral routines (Argyris, 1985). This evokes, it is believed, neural circuits working in part through the limbic system, right prefrontal cortex and the commensurate arousal of the SNS, which causes the body to move into the same physiological reactions as with stress.

The experience of compassion evokes responses within the human body that arouse the parasympathetic nervous system (PSNS), reversing the effects of the stress response and arousal of the SNS (Davidson, 2002; LeDoux, 2002; Sapolsky, 2004). This can operate like an antidote to stress, as shown in Figure 3.

Caring relationships are the key to arousal of the PSNS. In studies, caring for others and feeling cared for has been associated with lower blood pressure, enhanced immunity, and overall better health (Bartels & Zeki, 2000; Insel, 1997; Sapolsky, 1999, 2004) and a sense of gratitude (Fredrickson, in press, a; Tugade & Fredrickson, in press). Social networks and social capital have both been found to decrease mortality rates in human population-based studies (Berkman, Kawachi, & Kennedy, 1999; Kawachi et al., 1996, 1997). In primate studies it has been found that nurturing bonds between parents and their offspring increases the length of survival of the parent—both for males and for females. In most primate species the female is the primary caregiver and the females have a significant survival advantage. However, in owl monkeys the father is the only parent to carry and care for the offspring, giving their males a strong survival advantage over their females (Allman, Kumar, & Hasenstaub, 1998). Cardiac patients with pets to care for have greater survival rates and lower morbidity profiles than those without pets because the decreased frequency of SNS activation (Friedmann, Katcher, Lynch, & Thomas, 1980).

The PSNS helps maintain the body's status quo during times of quiescence, such as during sleeping and eating. It is also responsible for the coor-

dinated response used to reverse the effects of the stimulated SNS after a stressful interaction (McEwen, 1998; Sapolsky, 1999; Schulkin, 1999). Caring relationships cause a decrease in SNS reactivity by way of oxytocin and vasopressin's release from the hypothalamus (Carter & Altemus, 1997; Insel, 1997; Schulkin, 1999). Oxytocin decreases the hypothalamic-pituitary-adrenal axis and increases parasympathetic activity. The actions of oxytocin have been shown to reduce blood pressure, and reduce stress reactivity, reducing the chemical response elicited by stress and reversing its harmful effects on the body (Insel, 1997; LeDoux, 2002). Social interactions can therefore down-regulate an individual's SNS response to stress, both in the presence and absence of the caring figure by increasing the basal level activity of the PSNS (Diamond, 2001; Sapolsky, 2004).

It is believed that during the experience of compassion, a person will more likely have neural circuits moving through their left prefrontal cortex (LPFC), greater than the right (R. J. Davidson, 2002; Goleman, 2003; Rosenkranz et al., 2003). These neural circuits have been shown to relate to emotions such as elation and amusement, and people reporting feeling excited, enthusiastic, and interested (Ashby, Isen, & Turken, 1999; Davidson et al., 1990; Ekman, Davidson, & Friesen, 1990; Fredrickson, 2001; Groopman, 2004; Tomarken, Davidson, Wheeler, & Doss, 1992). The effects evoke a mild sense of euphoria and well-being, similar to the sense of hope associated with thought patterns predominating in part in the LPFC (Insel, 1997). For example, viewing photographs of a person one loves results in relatively more activation of the left prefrontal cortex and related areas than viewing photographs of friends (Bartels & Zeki, 2000). In addition, the decreased functioning of the leader's immune system can be reversed by the arousal of the PSNS and other related processes (Jemmott, 1982; McClelland & Kirshnit, 1982).

Therefore, *it can be expected that coaching others for their development will arouse compassion in a leader, along with the corresponding psychophysiological effects. Moving back and forth between these two aroused states (i.e., aroused power stress and aroused compassion) should, in turn, enable sustained leadership effectiveness, by allowing the leader to maintain him- or herself in a healthier state and have access to eliciting more brain power.*

Other Benefits of Coaching With Compassion

Another benefit of coaching with compassion is that the leader will be less focused on him- or

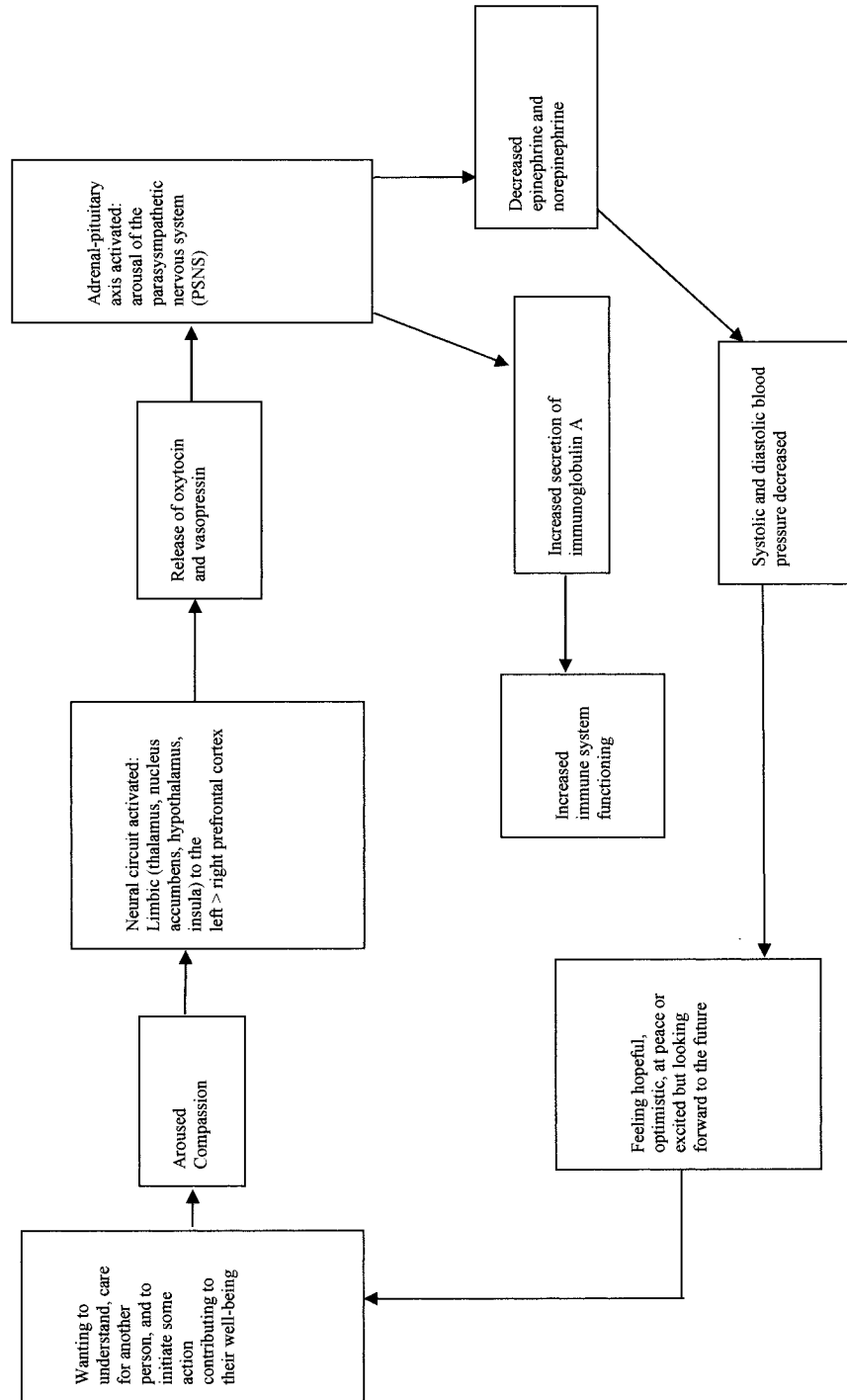


FIGURE 3
Compassion Syndrome

herself. This decrease in self-preoccupation could help alleviate some of the tendency toward self-aggrandizement that comes along with the power of being in a leadership position. The CEO disease describes the likelihood of those around a leader not wanting to relay accurate but negative or critical information (Byrne, 1991; Goleman, Boyatzis, & McKee, 2002). The leader becomes blocked off from criticism and disconfirming information about things such as his or her strategy, vision, or personal style. In the process, if the leader is bombarded with positive accolades, a preoccupation with the self can result in escalating egocentrism and even narcissism.

Coaching others with compassion can be a partial antidote to narcissism, because the leader is genuinely focused on others. At the same time, the improved quality of the relationship with others around the leader could result in people being willing to provide the leader with disconfirming, negative, or even critical reactions. Put in a more positive way, coaching with compassion could result in the leader being more open to others and their ideas. It allows or invites more self-awareness by moving a person into a relational world in which to get feedback and have to look at it. Limits on neural activity and inhibition of neurogenesis under chronic power stress will, on the other hand, lead to a more defensive posture toward critical feedback. This may be why more effective managers seem able to solicit negative feedback (Ashford & Tsui, 1991)—they are physiologically and perceptually more open to new ideas. This, along with the ability to adapt to or accommodate change, represents what Hall and Mirvis (1996) suggested are the key competencies demanded of individuals in the new workplace environment.

Therefore, to sustain leadership effectiveness, leaders should emphasize coaching as a key part of their role and behavioral habits. Through emotional contagion (Hatfield, Cacioppo, & Rapson, 1994) compassion and developing others is likely to spread and become a norm. This could result in the formation and maintenance of effective developmental networks as described by Higgins and Kram (2001), as well as the satisfaction of some of their social motivation or needs (Lawrence & Nohria, 2003). It would also have the organizational benefit of developing other leaders and helping the future viability of the organization. The resulting culture would feel more supportive of and developmental for people's careers (Dutton, Frost, Worline, Lilius, & Kanov, 2002; Hall & Associates, 1996; Kanov et al., in press).

Other Sources of Compassion

Although we have focused on the benefits of coaching others within the organization with compassion, there are clearly ways to arouse compassion besides coaching others. For example, a leader could instead do work outside of the organization, such as volunteer work that could arouse compassion (i.e., counseling high school students, activity in a nonprofit organization). But the time needed may conflict with organizational demands, and therefore, may not become a regular part of the leader's weekly or monthly activity. Thus, while socially important, these types of activities may distract the leader from the organization's mission and strategy and put additional time demands on him or her, resulting in more stress. In this sense, these outside activities may not be as organizationally efficient as effective coaching of others as a source of arousing compassion.

In addition to leading the organization in its primary purpose, a leader can also become involved in its philanthropic interests. Although socially important, this contribution may distract leaders from the core of the company's strategy, which results in increased compartmentalization of their lives. People in the organization may also feel less valued than their leaders' philanthropic interests and come to view this behavior as a sign of lack of interest, confidence in, or commitment to the organization. It thus appears that while demonstrating compassion outside of the organization may indeed ameliorate the power stress experienced by leaders, to help and not cause additional stress, the activities would have to be structured and perceived by others as central to the organization's mission.

Another way to reverse the harmful effects of arousal of the SNS that may be less distracting to leaders is the regular practice of relaxation techniques or meditation. Relaxation training has been found to decrease blood pressure, heart rate, and angry thoughts in patients with raised levels of norepinephrine (Hagaa, 1994), possibly by retraining patterns of SNS response or by eliciting an increased basal tone of the PSNS (McCraty et al., 1995, 1998). Researchers have found relaxation to be most effective when one focuses attention outside of oneself, but within the living world (Katcher et al., 1983). Meditation is currently under study as a means to change the functioning of the immune system and to decrease reactivity to stress, most likely as an activator of the PSNS (Davidson et al., 2003; Rosenkranz et al., 2003). Relaxation or meditation activities do not have the additional benefit of providing a cadre of future leaders for the organ-

ization in that they do not directly help the development of others. Engaging in these activities may, however, facilitate a leader's efforts to show compassion for others within the organization while operating in a stressful role.

Compassion Fatigue—Can Leaders Care Too Much?

While we have suggested that the demonstration of compassion through the coaching of others may increase leaders' sustainability by reducing the negative effects of power stress, it is also possible that compassion can be too arousing and actually result in an increase rather than a decrease in the stress effect. *Compassion fatigue* occurs when the experience of compassion becomes a burden, thus stimulating more stress, rather than less (Cordes & Dougherty, 1993). Also known as compassion burnout, secondary traumatic stress (STS), or vicarious traumatization, this phenomenon has been reported primarily in the studies of elderly caregivers of other elderly and social workers, and in reaction to major tragedy, such as 9/11 (Jenkins & Baird, 2002; Kinnick et al., 1996). We use the term and concept here in the context of the leadership role.

For a leader, compassion fatigue could be the result of the burden of responsibility for showing compassion toward many specific individuals. This condition could also result from handling the pain and suffering of others for too long or in too intense an environment (Frost, 2003). The symptoms include energy depletion, emotional exhaustion, reduced personal accomplishment, and decline in compassionate feelings toward others. It represents the emotional overload that results when one gets overinvolved emotionally, overextends oneself, and feels overwhelmed by the emotional demands imposed by others. In this way, compassion fatigue for a leader might result from the sum of many one-to-one encounters, such as occur in downturns or major crises (which are stressful in and of themselves to the leader) by asking the leader to share in many others' pain and continually offer care and sympathy.

Compassion fatigue as described here is much more likely to result from the demonstration of compassion in response to the pain and suffering of others than it is from the experience of compassion associated with coaching others for their development, including assisting them in realizing their dreams and aspirations (see Cote & Morgan, 2002 and Fredrickson 2001, 2003, in press a and b for a discussion of the differential impact of dealing with positive versus negative emotions). Frost

(2003) also suggests that "people who handle the emotional pain of others might themselves become vulnerable to that very same pain" (p. 4). Frost further adds that burnout from dealing with the pain and suffering of others might be even greater for the top leaders of an organization.

It is also possible, however, that leaders could become preoccupied with coaching and caring for others even in a strictly positive sense (i.e., in support of hopes, dreams, and aspirations), which, if carried to the extreme, could have a similar effect of creating stress due to compassion fatigue. Once this occurs, there is the risk of losing sight of the organization's mission and their leadership role, further contributing to (rather than decreasing) the experience of stress. Thus, *if a leader experiences an excessive burden of responsibility because of experiencing compassion at extremely intense levels, frequently, or for an extended duration, then additional stress may be elicited, potentially negating the positive effects of the experience of compassion.*

CONCLUSION AND IMPLICATIONS

Theories of leadership and leadership development can become more holistic and comprehensive if they incorporate psychophysiological interactions. Without such development, we will continue to create models of effective leadership that may not be sustainable and that may actually harm leaders. We offer that leaders are more likely to be effective and resist the effects of chronic, power stress if they are physiologically and psychologically balanced. We further suggest that leaders who coach others with compassion will stimulate internal processes that enable them to balance the toxic effects of power stress inherent in their roles as leaders and in performing the role effectively. Thus, coaching with compassion may provide the platform for sustainable leadership effectiveness and an effective approach for developing leaders—to teach them how to effectively engage and develop other leaders.

We also believe the integration of coaching, compassion, and leadership would result in a steady stream of capable leaders for the organization. A balanced physiological and psychological state for these leaders should enable the sustainability of their energy, focus, and talent. This could also become a new component of the organization's culture. The culture would be one in which everyone is trained and socialized in the need for coaching others with compassion. This would result in more emotional intelligence being demon-

strated within the organization, and we believe, more sustainable, effective organizations. The challenges for universities or corporate universities would be to encourage compassion in the development methods. This may require more relational approaches to leadership development with less dependence on theory and research, or case studies alone. Coaching, beyond the traditional notion of advising, would become a crucial pedagogical method. This may put pressure on faculty and training staff to update and retool their skills, role perspective, and attitudes.

We believe the implications for research on leadership and leadership development are many. First and foremost, careful, longitudinal studies must be conducted to support or refute the theoretical propositions presented here. For example, do leaders who coach others for their development experience compassion? Do leaders who experience compassion have less negative effects of chronic, power stress? Does this enable such leaders to be effective and be effective over sustained periods of time?

Second, greater use of physiological measures should be considered when conducting leadership or leadership development studies. Any one of the following would help build a holistic image of the leader: pulse rate, blood pressure, right versus left prefrontal cortex activity, testing for levels of secreted epinephrine and norepinephrine (urine catecholamines), saliva tests for immunoglobulin A and cortisol or serum tests for other hormones, such as oxytocin. A less intrusive way to collect relevant information would be to longitudinally follow a person's medical history, documenting incidence of acute occurrences of ulcers, respiratory infections, and short-term memory loss, as well as the onset of chronic diseases such as diabetes or hypertension. A number of studies published in the management literature over the past 2 decades have included a variety of physiological measures (e.g., Fox, Dwyer, & Ganster, 1993; Perrewe et al., 2004; Schaubroeck & Merritt, 1997; Steffy & Jones, 1988). However, a more holistic approach to the study of effective leadership will require greater and more consistent use of such measures.

Third, a holistic theory of leadership needs holistic methods. This calls for interdisciplinary research on leadership. It encourages new forms of collaboration between schools of management and other schools or departments, such as psychology, medicine, nursing, and social work. This would result in studying the effects of leadership development activities intended to prepare for managing the stress-recovery cycle. It would also

extend research into the pedagogy that might help leadership development be more holistic itself.

Fourth, experiments could be designed to discover the degree to which a person feels better, experiences compassion and activates their PSNS when coaching—or being coached. The effects of caring versus instrumental relationship and coaching could be examined this way.

Fifth, epidemiological studies of leaders could be conducted with historical records and interviews. They could help to establish the presence of chronic SNS arousal in leaders, and in particular effective leaders. Further studies could examine these effects in effective leaders shown to have sustained effectiveness. It would be useful to extend the existing literature on the importance of mentoring and coaching to study sustained, effective leaders. For such research to go beyond current insights, longitudinal designs would be required rather than merely retrospective studies.

Because of the likely discontinuous and nonlinear relationships among many of the variables mentioned above, the research would have to be conducted in such a way as to examine and document such effects. The multidisciplinary methods would require caution in design, as well as in sampling, but most of all in the analysis and presentation of the data.

The primary implications for practitioners—whether management consultants or educators attempting to develop leaders—of the ideas presented here are that we should train leaders to be compassionate coaches. We should help them incorporate these activities into their expectations of the role responsibility of a leader. The coaching should be for the development of the other people, not only for instrumental, organizational longevity, or performance reasons. In management education, the curriculum must be moved beyond teaching about leadership to developing actual leadership capability. This should include development of the ability to coach others to be leaders.

In order to coach with compassion, leaders need to care for others around them, and not see them as a burden and responsibility. Since this often involves liking the people, it may require leaders to choose carefully who they will coach and who they will encourage others to coach. At a minimum, we should consider the incorporation of training and practice in techniques to arouse the PSNS to help prospective leaders develop the ability to renew themselves before they are in roles that arouse chronic power stress. In this way, the leader can be sustained and live to lead another day.

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