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EMPATHY ENHANCING ANTIDOTES FOR INTERPERSONALLY TOXIC LEADERS

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There is increasing evidence that toxic interpersonal leadership practices and behavior cause serious problems for employees, organizations, and society (Kraskikova, Green, & LeBreton, 2013; Schyns & Schilling, 2013). The empathy–altruism hypothesis (e.g., Batson & Oleson, 1991) suggests that an empathic response is a necessary component in human prosocial behaviors with important implications for both leaders and organizations today. Many studies support a link between empathy (empathetic distress, empathic concern, and perspective-taking) and prosocial engagement (Zak, 2018), as well as a significant association between lack of perceived caring and warmth of leaders and adverse emotional, behavioral, and health outcomes in employees (Nowack, 2016). In this article, we explore the value of empathy as a set of behaviors to mitigate the association between toxic interpersonal leadership practices and negative individual and organizational outcomes (e.g., retention intentions, disengagement, psychological well-being). In our summary, we suggest specific evidence-based interventions for practitioners and organizations to promote empathy-enhancing antidotes to such toxic leadership practices.

What's It Mean? Implications for Consulting Psychology

Leaders who demonstrate caring and empathy contribute to positive outcomes on employee engagement, performance, and retention. Specific individual and organizational interventions are suggested for enhancing empathetic concern, perspective-taking, and caring in leaders at all levels.

Keywords: empathy, leadership, trust, justice, performance

In the world of work, people are largely subjected to "arranged marriages" with supervisors, direct reports, and colleagues, and sometimes these relationships can be challenging if a person is toxic.

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This can be especially difficult if such a person is a boss or coworker. Evidence suggests that people are more willing to put up with likable but less competent colleagues and bosses than those who are skilled and productive but generally treat others badly (Casciaro & Lobo, 2005). In general, leaders and other employees who are perceived to be high in empathy and warmth tend to be affectionate and friendly, seek social attachments, and are consistently judged as more socially likable (Cuddy, Glick, & Beninger, 2011; Wiley, Eichenauer, & Zhang, 2019).

Several studies have illustrated the business impact of lack of empathy by leaders and other employees in organizations (Porath, Gerbasi, & Schorch, 2015; Porath & Pearson, 2009). The findings suggest that almost all employees experience rudeness from others on the job and that a culture that lacks empathy and compassion results in less creativity and a decrease in team spirt and performance. In one study, Porath and Pearson (2009) found that 38% of employees who experienced incivility intentionally reduced the quality of their work effort, resulting in significantly higher levels of customer dissatisfaction.

A survey of 189,000 employees in 81 diverse organizations identified four distinct leadership practices that were associated with overall leadership effectiveness, as measured by the McKinsey Organizational Health Index (Feser, Mayol, & Srinivasan, 2018). These four practices, which statistically explained 89% of the variance in predicting overall leadership effectiveness, were: (a) supporting others by tuning into how they feel and demonstrating empathetic concern, (b) seeking different perspectives from others, (c) operating with a results orientation, and (d) solving problems effectively. Overall, the most effective leaders in their survey expressed empathetic concern for others through four key interpersonal skills: appreciating a person's inherent value, treating others with respect and fairness, affiliating with others, and having a collaborative rather than competitive orientation. As such, these behavior-based interpersonal skills lend themselves to a number of specific evidence-based individual, team, and organizational coaching, training, and program interventions that will be presented in this article.

The Three Components of Empathy

Despite the complexities of utilizing neuroscience approaches in organizational research (cf. Waldman, Wang, & Fenters, 2016), scientists have classified three distinct types of empathy: (a) empathic distress, (b) empathic concern (compassion), and (c) perspective-taking (the process of inferring the mental state of others and sometimes referred to as "theory of mind"). The former two are associated with negative and positive affective states, respectively, whereas the latter is believed to be a primarily cognitive process.

Empathic distress is characterized by reactive and aversive feelings (e.g., worry, anxiety, and discomfort) that are focused on the self and reaction to others (Batson & Oleson, 1991). Longmire and Harrison (2018) have shown that perspective-taking and empathetic concern are independent empathy constructs with less than 25% shared variance. Interventions that attempt to enhance collaboration tend to be more effective when focused on empathetic concern (behavioral focus) rather than perspective-taking (cognitive focus), and the converse holds when developing skills for negotiation or conflict management where empathetic concern could be a potential liability (Longmire & Harrison, 2018). Table 1 summarizes the neuroscientific, emotional, and behavioral differences among the three types of empathy, based on current neuroimaging findings (Vollberg & Cikara, 2018) and other physiological studies (e.g., Singer et al., 2008).

Of the three types of empathy, empathetic concern appears to be most strongly associated with observable prosocial and compassionate behavior toward others (Singer et al., 2008). Empathetic distress, or lack of it, appears to be the main component of what is popularly referred to as "unconscious bias." That is, people tend to feel less distress or empathy-as-pain for those who they consider as being in their "out-groups" than for those who they view as being in their "in-groups" — based on any categorization of differences with others such as gender, race, age, language, socioeconomic status, or culture, to name a few (Vaughn, Savjani, Cohen, & Eagleman, 2018).

As such, focusing on ways to directly address the blind spots of unconscious bias, enhance empathetic concern, and facilitate empathy-based perspective-taking in leaders may all uniquely

Table 1
Summary of the Three Types of Empathy

Empathetic distress	Empathetic perspective-taking	Empathetic concern/compassion
Anterior insula/anterior middle cingulate cortex	Ventral medial prefrontal cortex/ temporoparietal junction	Medial orbitofrontal cortex/striatum
Self-related emotion/behavior	Other-related cognitions	Other related emotions/behaviors
Negative affect	Positive and negative affect	Positive affect
Poor health/well-being	Good and poor health/well-being	Good health/well-being
Withdrawal/nonsocial behavior	Sense of morality/judgment	Approach/prosocial behavior

contribute to both positive individual and organizational outcomes (Zak & Barraza, 2013). One important implication of research on these three components of empathy is that they can be directly translated into practical interventions and programs targeted to employees and influencing organizational policies, procedures, and processes.

Toxic Interpersonal Leadership Behaviors and Organizational Outcomes

Developing empathy in both leaders and among team members improves many organizational outcomes such as productivity (Barsade & O'Neill, 2014), engagement (Miao, Humphrey, & Quian, 2016) and retention of employees at all levels (Zak, 2017). For example, Development Dimensions International (2014), in its *High-Resolution Leadership Report*, assessed 15,000 leaders and managers in 300 organizations spanning 20 industries and 18 countries and found that empathy was one of the most important drivers of overall leadership performance. Surprisingly, only 40% of the frontline leaders assessed were rated as proficient or strong in empathy. These findings suggest there is a significant empathy gap in leader selection and development that may be inhibiting bottom-line business performance, providing a hint about one possible approach to enhancing a culture of caring and empathy within organizations.

The impact of empathy-based cultures applies more broadly to all companies, not just to those in traditional "helping" industries. For example, a survey of 3,200 employees in 17 organizations spanning seven industries (biopharmaceutical, engineering, financial services, higher education, public utilities, real estate, and travel) sought to assess how empathy, caring, and compassion affected overall performance. Employees reported significantly greater job satisfaction and commitment/accountability for work performance in organizations where people felt and expressed compassion toward one another. These results held for all the industries in the sample (Barsade & O'Neill, 2014).

Leaders who lack emotional and social competence undoubtedly can become a liability to organizations, directly leading to employee disengagement, absenteeism, stress-disability claims, hostile-workplace lawsuits, and increased health-care expenses (Miao et al., 2016). Lack of social skills and empathy (key constructs in any conceptualization of emotional and social intelligence) would appear to have significant and meaningful effects on interpersonal relations at work. A meta-analysis of 50 studies (Schyns & Schilling, 2013) found that different conceptualizations of destructive leadership behavior (e.g., lack of empathy, incivility, interactional fairness) had significant and positive associations with negative organizational outcomes such as turnover intention (r = .31) and counterproductive work behavior (r = .38).

Recent findings (Nowack & Zak, 2017; Zak, 2018) have shown a significant association between leaders who express caring, support, and empathy toward their colleagues and diverse organizational outcomes. In a nationally representative sample of 1,095 working adults in the United States, the highest quartile of organizational trust and empathy was compared with the lowest quartile. Those in the highest quartile reported 75% higher engagement (measured by the Utrecht Work Engagement Scale; Schaufeli, Salanova, González-Romá, & Bakker, 2002), 50% better

retention, and 40% less job burnout (measured by the Maslach Burnout Inventory; Maslach, 2017). Although causality cannot be determined, employees who worked for a leader who demonstrated higher levels of empathy, warmth, and caring toward them experienced significantly less job burnout (Maslach Burnout Inventory) and chronic stress and reported higher levels of job satisfaction and engagement (correlation coefficients were -.29, -.48, .50, and .87, respectively; with p < .05 for all).

Toxic Interpersonal Leadership Behaviors and Employee-Health Outcomes

Good bosses and leaders can have a direct and positive impact on employee health that can be both cost-effective to the corporate financial bottom line and even lifesaving. Overall, chronic negative interactions with one's boss or colleagues can diminish immunocompetence and contribute directly to job burnout and depression (Nowack, 2016, 2017).

For example, one longitudinal study that followed 820 healthy adults for 20 years found that those who experienced low social and emotional support at work from peers were 2.4 times more likely to die (hazard ratio [HR] = .72; 95% confidence interval [CI; 0.55, 0.94]) relative to those most satisfied with their collegial relationships (Shirom, Toker, Alkaly, Jacobson, & Balicer, 2011). This result continued to hold when controlling for lifestyle factors such as smoking, obesity, and depression. Other studies confirm that employees experience higher ambulatory blood pressure, both at and away from work, when working for a interpersonally toxic leader and significantly lower blood pressure when working with a more empathetic, supportive, and caring supervisor (Wager, Fieldman, & Hussey, 2003; Wong & Kelloway, 2016).

Additional research has suggested that working for a toxic boss is associated with absenteeism caused by physical illness. A study of 506 males and 3,570 females measured perceived justice (supervisory practices and positive leadership behaviors) and related this to sick days and health (Elovainio et al., 2010; Elovainio, Heponiemi, Sinervo, & Magnavita, 2010). Absences caused by sickness among those perceiving low justice were 1.2 to 1.9 times higher than among those perceiving high justice. These associations remained significant and meaningful even after statistical adjustments were made for other behavioral risks such as heavy workload, job control, and social support.

These findings are also supported by the Whitehall II study of 6,442 male British civil servants (Kivimäki et al., 2005). Respondents rated supervisory practices and were tracked for the next 10 years. They found that supportive leadership behaviors that included clarity of goals and role expectations, supplying information and feedback, and promoting of employee participation in decisions were associated with lower risk of incident coronary heart disease than those with low or intermediate levels of justice (HR = 0.65; 95% CI [0.47, 0.89]). This finding held even after adjustment for other known cardiovascular risk factors such as obesity, lack of physical activity, high cholesterol, and smoking.

Additionally, a 3-year prospective study with 3,122 male workers found a strong dose-response association with significantly lower cardiac events linked to specific leadership practices such as consideration for individual employees, provision of clarity in goals and role expectations, supplying information and feedback, ability to carry out changes at work successfully, and promotion of employee participation and control (Nyberg et al., 2009). As in the previous studies, this effect (HR = .61; 95% CI [0.47, 0.80]) persisted even when controlling for perceived workload, social class, smoking, physical activity, blood pressure, and body mass index.

These studies provide some evidence that interpersonally toxic leaders are likely to increase morbidity and mortality, particularly in males, with quantitatively similar effects to smoking, obesity, inactivity, and social isolation (Nyberg et al., 2009). One extreme type of toxic interpersonal leader can be characterized as a person who displays any of the dark-triad traits of narcissism, Machiavellianism, and subclinical psychopathy. The three traits share some common characteristics, including lack of empathy, warmth, caring, high interpersonal insensitivity, and offensiveness toward others (O'Boyle, Forsyth, Banks, & McDaniel, 2012).

Machiavellianism is typically characterized by cynical, pragmatic, and immoral beliefs; emotional detachment; and manipulation and exploitation of others. Narcissism often includes an

inflated view of self; fantasies about control, success, and admiration; and an inflated sense of confidence and entitlement. Finally, subclinical psychopathy in leaders is marked by a lack of concern for both other people, impulsivity, and a lack of guilt or remorse for emotionally harming others. Although some overlap among these traits is seen in toxic leaders, the three traits constituting the dark triad are considered relatively independent (Prusik & Szulawski, 2019).

Two reviews have investigated the dark triad of toxic bosses and concluded that lack of emotional and social competence is associated with Machiavellianism and narcissism but not psychopathology (Miao, Humphrey, & Qian, 2017; Miao, Humphrey, Qian, & Pollack, 2019). As such, leaders who are lacking in empathy and express some of these dark-side attributes are also likely to fabricate favorable impressions, cleverly deceive others or purposely manipulate others for their own personal gain. In summary, working for a caring, empathetic, and supportive boss might have direct and cost-saving health outcomes for employees as well as important organizational benefits related to engagement, job satisfaction, and reduced counterproductive behavior (Nowack & Munro, 2019).

Neuroscience provides some clues about why threatening and toxic interpersonal interactions, such as perceived unfairness or individual feedback that is experienced as evaluative and judgmental, are potentially harmful to both psychological well-being and job performance (Nowack, 2014). Social-evaluative threats such as negative feedback, bullying, or being treated unfairly, activate neurophysiologic pathways associated with the experience of physical pain (DeWall et al., 2010; Eisenberger, Lieberman, & Williams, 2003). In general, socially oriented stressors are particularly physiologically harmful resulting in the greatest cortisol elevations relative to task-focused stressors (Dickerson, 2008; Dickerson & Kemeny, 2004; Kemeny, 2009; Lehman & Conley, 2010).

Studies using functional magnetic resonance imaging (fMRI) showed that an analgesic, acetaminophen, significantly reduced subjective evaluations of distress and neural pain responses to social rejection relative to a placebo-control (DeWall et al., 2010). This work was extended in a follow-up study in which participants evaluated pleasant and unpleasant images after having consumed acetaminophen or a placebo (Durso, Luttrell, & Way, 2015). Relative to the placebo, the analgesic pain killer muted both negative and, to a lesser extent, positive emotions. Additionally, people reporting high levels of pain after reliving a distressing interpersonal event showed a larger performance deficit during a cognitively demanding task than those remembering a physically painful experience (Chen, Williams, Fitness, & Newton, 2008). In summary, not only have toxic interpersonal leadership practices been shown to be associated with adverse organizational outcomes, but current studies have also supported a direct negative association with employee physical health and psychological well-being that have a neurobiological basis.

Developing Empathy in Individuals and Organizations

Variation in empathetic concern, empathetic distress, and perspective-taking is to be expected in all employees for a variety of reasons, including personality traits, life experiences, one's current physiologic state, and the context of the situation one is engaged in (cf. Chong et al., 2017; Ferguson et al., 2000). Empathy is motivated—the cognitive and emotional cost of demonstrating empathy are substantial enough to cause most people to sometimes avoid it (Cameron et al., 2019). Trying to understand and share in the feelings of others is experienced as a cognitive drain, and this perception is linked to empathy avoidance. Therefore, demonstrating empathetic concern, perspective-taking, and other prosocial behavior is not easy and requires effort and practice.

In general, very little is known about the overuse of empathy, but research by Zloteanu, Bull, and Richardson (2019) suggested that one possible downside of very high empathy in leaders is the possible misinterpretation of deceptive emotional cues in others (but not genuine expressions of affect). Although warmth and empathy typically generate positive social relations with others, excessive empathy can sometimes cause others to feel pressured to react with similar enthusiasm (Hu, Zhang, Jiang, & Chen, 2019). In fact, two separate studies did provide some preliminary support for a possible curvilinear relationship between empathy and leadership emergence. Assertiveness and warmth facets of extraversion initially appear to have a positive relationship with peer

liking, but the relationship decreases and becomes negative as warmth (and assertiveness) increase to very high levels (Hu et al., 2019). However, this possible overuse risk doesn't seem to be a very strong argument to counter current research suggesting that demonstrating empathetic concern toward others, while holding them accounting to reach milestones, greatly improves employee satisfaction, engagement, and productivity on the part of leaders (De Cremer, van Dijke, Schminke, De Schutter, & Stouten, 2018).

Because of the association between empathy and individual and organizational outcomes, the key actionable issue is whether improved empathy can be learned through executive coaching, training, or the establishment of explicit group/team norms. Accumulating evidence shows that individuals and teams can indeed improve all aspects of empathy (perspective-taking, empathetic concern, and becoming more aware of our unconscious bias around empathetic distress for those outside one's "in-group") by using specific targeted interventions. The research showing that people who experience compassion and demonstrate empathy tend to be more collaborative and helpful to others (Zak, Stanton, & Ahmadi, 2007) will serve as the basis of our suggestions for some evidence-based interventions with leaders and organizations that can enhance a psychologically safe and caring culture (see Table 2).

Suggestions for Individual-Level Approaches for Enhancing Empathy in Leaders

Enhance an empathy mind-set with leaders. People's cognitive mind-sets powerfully affect whether they exert the effort to empathize. Researchers conducted seven separate studies that showed that people who believed that personal empathy can be developed and enhanced expended greater empathic effort in interacting with others than did people who believed empathy could not be changed (Schumann, Zaki, & Dweck, 2014).

Training and executive coaching that shifts an individual's empathy mind-set toward developing empathic skills is likely to produce greater cooperation, support, and compassion toward others. Such exercises might simultaneously enhance empathic distress ("feelings with" the other person) and compassion ("feelings for" the other person) that focus on team goals and key performance indicators. Additional evidence supports the overall efficacy of leadership training on empathy and caring that are traditionally part of competencies for emotional and social intelligence (Hodzic, Scharfen, Ripoll, Holling, & Zenasni, 2018; Mattingly & Kraiger, 2018). Both meta-analytic studies cited above found positive and meaningful effect sizes (0.45 and 0.51, respectively) that were robust by gender and type of emotional- and social-competency measure used as a part of training interventions aimed at enhancing empathetic leader behavior.

Practice mindfulness meditation (compassion-based). A second approach to enhance compassion and empathy toward others involves the practice of mindfulness meditation for leaders and

Table 2

Examples of Evidenced-Based Techniques and Tools to Enhance Empathy in Leaders

Individual-based approaches	Organizational-based approaches	
Enhance an empathy mind-set with employees (Schumann, Zaki, & Dweck, 2014)	Create team and organizational empathy-oriented norms (Nook, Ong, Morelli, Mitchell, & Zaki, 2016).	
Practice empathy-based perspective-taking (Böckler et al., 2017)	Screen, select, and promote for empathy (Ou, Waldman, & Peterson, 2015)	
Practice compassion-based mindfulness meditation (Böckler, Tusche, Schmidt, & Singer, 2018)	Use a diverse and blind slate of candidates for promotion and selection (Bohnet, van Green, & Bazerman, 2016)	
Practice healthy lifestyle practices (Gaultney, 2014, 2016; Nowack, 2017; Yoo, Gujar, Hu, Jolesz, & Walker, 2007)	Promote diversity and inclusion initiatives (Chanland & Murphy, 2017; Hunt, Prince, Dixon-Fyle, & Yee, 2018)	
Use physical activity to cope with perceived unfairness and toxic leadership practices (Watkins & Umphress, 2020)	Support and practice a culture of appreciation (Spence Laschinger, Leiter, Day, Gilin-Oore, & Mackinnon, 2012; Stocker et al., 2019)	

employees. Not all forms of meditation activate the same neural pathways or lead to the same outcomes, much like differential outcomes associated with specific physical activities (e.g., aerobic exercise to enhance cardiovascular functioning or strength-based exercises to foster muscle tone and bone density). For example, participants who practiced 12 weeks of a self-hypnosis form of meditation showed a significant decline in the proinflammatory cytokine (interleukin-6) relative to a wait-list control group along with a shift in less negative appraisal coping (Schoen & Nowack, 2013). In general, recent reviews of mindfulness training (e.g., mindfulness-based stress reduction techniques) have suggested benefits beyond employee well-being to include such outcomes as enhanced relationships and job performance (Bartlett et al., 2019).

The most effective type of meditation to enhance empathy and compassion is known as *metta*, or *loving-kindness*, *meditation* (Böckler, Tusche, Schmidt, & Singer, 2018). In this form of mindfulness meditation, participants are asked to think of someone they love for 10 to 20 min daily for three months and to focus on feelings of care, compassion, and affection toward that person. They are also typically asked to do the same for people they do not know very well, as well as for people with whom they do not get along.

In the Böckler et al. (2018) study, participants were more significantly generous, more willing to help others in need, and donated more to charity. Daily practice that focused on either developing socioemotional capabilities (empathetic concern) or social–cognitive skills (perspective-taking) showed enhanced cortical thickness in areas supporting these functions using brain MRIs. Additionally, another meditation study from the same research group also found that a 3-month compassion-based training significantly reduced self-reported stress and reactivity of the stress hormone cortisol by 36% and 32%, respectively (Hildebrandt, McCall, & Singer, 2017).

Engage in lifestyle practices to enhance empathy or cope more effectively with a lack of it. Interventions aimed at enhancing leadership and employee psychological health and wellbeing could also offer some possible ways to both cope with and directly influence empathetic concern, perspective-taking, collaboration, and caring in organizations. It is well established that sleep deprivation diminishes emotional and social competence in both leaders and employees (Gaultney, 2014, 2016; Nowack, 2017; Yoo, Gujar, Hu, Jolesz, & Walker, 2007).

For example, Barnes, Lucianetti, Bhave, and Christian (2015) explored the association between leader's sleep quality and quantity and perceived leadership practices, abusive behaviors, and level of engagement by direct reports. Daily sleep quality, but not quantity, significantly influenced the leader's self-control and abusive behaviors. As a result, engagement by direct reports was significantly lower when a leader's sleep quality was poor. This is one of the first studies to demonstrate an association between leadership lifestyle practices and employee engagement/satisfaction (Barnes et al., 2015).

Several approaches to improving employee sleep quality/quantity appear to have some empirical support. These include individual-level approaches such as training employees on cognitive—behavioral strategies to address insomnia or mindfulness training to improve sleep (Crain et al., 2019). Additionally, providing psychoeducation to employees about sleep hygiene practices and offering individual feedback about sleep history, as measured by actigraphy, also might be considered (Adler, Gunia, Bliese, Kim, & LoPresti, 2017).

Also, fatigued and chronically stressed employees have a neurological handicap resulting in less empathy, caring, and compassion in interacting with both internal and external customers (Tabibnia & Radecki, 2018). This directly reduces effective teamwork, psychological safety, collaborative support of others, innovation, and productivity. As a result, companies that support wellness and health promotion efforts are helping to facilitate prosocial behavior, psychological well-being, and emotional-social competence for employees.

Finally, research has suggested that employees who are physically active might be better able to mitigate the adverse health outcomes of being treated without respect or caring by leaders (Watkins & Umphress, 2020). In both a laboratory and field setting, physical activity (either engaging in high physical activity [jogging for 10 min; 117 participants] or low physical activity [reading about physical activity for 10 min; 126 participants]) on the part of employees significantly attenuated the effects of low levels of supervisor interpersonal-injustice behaviors on self-regulatory

depletion and also diminished social undermining directed toward the supervisor (Watkins & Umphress, 2020). These findings indicate that when employees are faced with leaders who lack sensitivity, caring, and fairness, then exercise and being physically active might be a useful coping technique to minimize the impact of such toxic behaviors on both performance and well-being if few other options exist.

Practice empathy-based perspective-taking. Despite an emphasis on the importance of empathetic concern and distress throughout this article, enhancing the cognitive facet of empathy around perspective-taking is another intervention that appears to be useful to facilitate prosocial behavior, although some limitations have appeared in several studies. It is thought that having employees practice taking another person's perspective (e.g., asking employees to imagine for a moment that they are another person, walking through the world in their shoes and seeing the world through their eyes) can increase awareness of others and thereby directly translate to improvement in appreciation and caring of others. When employees are adept a perspective-taking, they will treat others more "self-like," activating areas of the brain associated with self-focus and self-reflection (e.g., ventromedial prefrontal cortex). Exercises focused on perspective-taking appear to blur the distinction between self and others, enhancing empathetic concern and possibly even reducing unconscious bias and overt prejudice (Ames, Jenkins, Banaji, & Mitchell, 2008).

Research by Böckler, Herrmann, Fynn-Mathis Trautwein, Holmes, and Singer (2017) provided evidence that empathy can be enhanced by facilitating empathetic-based perspective-taking. In this 3-month study, two groups (N=80 and N=81) received contemplative training (participants practiced perspective-taking by learning to identify and classify aspects of their personality). The goal of the intervention was to help participants recognize their tendencies when relating to others. This finding suggests a close link between getting better in understanding oneself through training and coaching and improvement in empathy that is a key component of social and emotional intelligence (Böckler et al., 2017). Finally, research by Catapano, Tormala, and Rucker (2019) provides a reminder that "putting yourself in the shoes of others" is contextual. In three studies (total N=2,734) the researchers found that taking the perspective of someone who endorses an alternate viewpoint reduces attitude change and receptiveness to that individual. However, the desired effect of opening people up to accepting alternate views of others was attenuated when both parties had similar overall values.

It is important to emphasize that there has been some discrepant research about the use of perspective-taking as a targeted intervention to enhance individual empathy. However, the current body of research implies that there may be both some advantages and some limits to just how strongly people will identify with alternate points of views of others or modify their own beliefs and values to influence their behavior.

Suggestions for Enhancing Empathy in Leaders With Approaches at the Team and Organizational Level

It turns out that empathy in humans is always biased and this bias has both genetic and social-learning components. From an evolutionary perspective groups, clans and tribes with strong social bonds had a better chance of surviving against predators and successfully reproducing. Today, each person belongs to various tribes, clans, and groups, referred to as "self-identities." Numerous studies show that people relate well with those most like them and tend to avoid "outsiders" (cf. Daughters, Manstead, Ten Velden, & De Dreu, 2017; Stallen, De Dreu, Shalvi, Smidts, & Sanfey, 2012). In business, healthy competition is expected but members of a team may not feel that teammates understand or always care about their own personal frustrations and challenges. These team members belong to the same tribe so they should be working cooperatively toward the overall success of the organization. It is as if the boundaries of empathy define "us versus them." In general, competitive relationships have been shown to reduce empathy, whereas cooperation enhances it. For example, participants in one study expressed little distress when viewing a painful shock of a competitor and were distressed when seeing them experience joy (Lanzetta & Englis, 1989).

Some evidence suggests that collaboration with others is dependent on whether a person shares "in-group" identities. For example, the neural correlates of these responses were established in

related research (Vaughn et al., 2018). Participants had their brains scanned by fMRI while they watched a needle stab hands that were labeled with different religious affiliations. The analysis indicated stronger empathetic responses for those in one's own religious group. Participants who strongly identified with their religion demonstrated a significantly higher neural response to the pain of those in their own religious affiliation and a reduced empathetic response to seeing a label identifying the hand as being from another religious group. Interestingly, those who identified as atheists, or other similar religious groups, had greater in-group compassion to other atheists relative to any other group. Other studies have observed similar neural ingroup/outgroup empathy responses based on race, extending the findings beyond religious affiliation (Xu, Zuo, Wang, & Han, 2009).

So one important question for leaders of organizations that want to enhance fairness in the treatment of others and reduce biased behavior is how to decrease the gap in empathy between in-groups and out-groups. Four specific suggestions are offered at the team and organizational level for minimizing out-group bias as well as enhancing an organizational culture of empathy.

Create team and organizational empathy-oriented norms. Prosocial behavior grows after creating empathetic norms in organizations and teams. For example, in a series of five studies, both individual and group empathic feelings shifted based on the norms chosen and accepted by the team (Nook, Ong, Morelli, Mitchell, & Zaki, 2016). These findings provide support that empathy is contagious in that people "catch" each other's caring and altruistic behavior. As such, leaders within organizations can influence social norms in their staff and teams to "nudge" them toward behaving in more trusting, collaborative, and caring ways, as well as to reinforce and reward these behaviors when they are observed.

Policies and procedures to address bullying and leaders who are "competent jerks" also support a caring and supportive culture. Indeed, changes to organizational norms are most effective at improving performance when an in-group increases empathetic concern and perspective-taking toward an out-group, as shown in neuroscience and behavioral studies.

Create, reinforce, and support a culture of appreciation. One important interpersonal leadership skill directly associated with perceptions of empathy is appreciation toward employees (others include perceived fairness in treatment, collaboration, affiliation, and respect). Appreciation at work (e.g., communicating that one values someone else; unconditionally recognizes another person as an individual; and acknowledges performance, qualities, or behavior of others) directly affects employee well-being and health and provides a protective resource in stressful work situations (Stocker et al., 2019; Vegchel, De Jonge, Bakker, & Schaufeli, 2002). Appreciation related to empathetic concern is about acknowledging a person's inherent value rather than focusing on a person's efforts or accomplishments.

Leaders in organizations can model demonstrations of appreciation at both the individual and team level. As Stocker et al. (2019) emphasized, appreciation at work extends beyond just "employee of the month" programs by consciously demonstrating both praise and expressions of gratitude toward employees and other internal/external stakeholders. Some evidence of the impact of a culture of positive appreciation has been shown, and one example is illustrated by a program called Civility, Respect, Engagement in the Workforce (Spence Laschinger, Leiter, Day, Gilin-Oore, & Mackinnon, 2012). Employees participated in a 6-month organizational intervention that specifically targeted workplace civility.

Overall, the results of such appreciation-based training programs have demonstrated the likelihood that positive social encounters can contribute to an empathy-based and caring culture at work. Acknowledging and expressing appreciation is a relatively simple but positive way to influence employee self-esteem, provide a resource to cope with work stress, and facilitate caring behavior in teams and within organizations (Stocker et al., 2019).

Screen, select, and promote for empathy. In general, companies tend to overemphasize assertive, directive, and dominance-oriented traits (agentic) and undervalue empathic qualities (communal) in leaders they are considering for selection and promotion, despite research demonstrating the importance of such skills for effectiveness and success (Bozionelos & Singh, 2017; Joseph, Jin, Newman, & O'Boyle, 2015; Miao et al., 2016; Nowack, 2014; Nowack & Munro, 2019; Zak, 2018). Meta-analytic studies have suggested that demonstrating empathy, warmth, and caring behaviors

makes leaders generally less likely to be evaluated and perceived as possessing the very skills that significantly contribute to leader effectiveness (Badura, Grijalva, Newman, Yan, & Jeon, 2018; Porath et al., 2015). For example, in a study of 105 small to medium-sized companies, CEOs who exhibited more humility and caring saw an increase in the financial performance of their companies and had significantly less employee turnover and greater employee satisfaction with their work (Ou, Waldman, & Peterson, 2015).

A study by Miao et al. (2017) found that both self-report measures of emotional intelligence (EI) and mixed-competency measures demonstrated incremental validity (for EI–organizational citizenship behavior [OCB], k=68, N=16,386; for EI–counterproductive work behavior [CWB], k=17, N=3,914) above the Big Five personality factors, cognitive intelligence, and general self-efficacy in predicting both OCB and CWB. This meta-analytic study suggested that companies can reduce CWB and increase OCB by recruiting and selecting employees high in emotional and social competence and by training them in EI-based competencies associated with empathy, conflict management, and collaboration. In summary, when technical competence and experience appear to be present in leadership candidates, also screening and selecting candidates for communal traits and qualities including empathy, warmth, humility, and collaboration can have positive effects on both employee performance and well-being (Bohnet, van Green, & Bazerman, 2016).

Promote diversity and inclusion initiatives. Structured exposure to other cultures, nationalities, and individuals with different backgrounds and experiences reduces "out-group" biases by increasing empathetic concern and perspective-taking (Cao, Contreras-Huerta, McFadyen, & Cunnington, 2015; Zuo & Han, 2013). Additionally, research shows that objective rules tend to be applied rigorously to out-groups but much more leniently to in-groups within organizations (Abbink & Harris, 2019).

Companies should therefore support and provide ongoing diversity and inclusiveness training, mentoring, coaching, peer support, and experiences that help employees understand and appreciate other individuals and cultures. This can result in reduced unconscious bias and enhanced psychological safety, and it may improve upon the mixed-outcome-based results achieved by many traditional efforts to train for organizational diversity, which at best have shifted beliefs but not actual behavior of leaders (Chang et al., 2019).

As such, promoting diversity and inclusive programs and initiatives might have a direct effect of facilitating a high-trust and empathetic culture as well as having some secondary bottom-line financial outcomes. For example, research of more than 1,000 companies in 12 countries found that those in the top quartile of offering gender-diversity programs for executive teams were 21% more likely to experience above-average profitability than companies in the lowest quartile (Hunt, Prince, Dixon-Fyle, & Yee, 2018).

Companies with inclusive leadership teams that facilitate advancement of women and other underrepresented groups to positions of authority demonstrate higher quality interpersonal relationships and stronger psychosocial support (Chanland & Murphy, 2017). Emphasizing diversity and inclusion, particularly for women, appears to be important in light of research suggesting that ineffective interpersonal behaviors are slightly less frequent among female managers but slightly more damaging to women than men when present (Bono et al., 2017). As a result, when supervisors believe that a female manager might derail in the future, they tend to withdraw mentoring support and sponsorship, both of which are especially critical for women's career advancement. In summary, diversity and inclusiveness interventions might directly mitigate unconscious bias (empathetic distress) and perceived unfairness, particularly by penalizing women and those in other representative groups, within organizations.

Conclusion

The evidence presented in this article supports a positive and significant set of associations between leadership empathy and employee retention, engagement, physical health, psychological well-being, and job performance (De Cremer et al., 2018; Riess, Neporent, & Alda, 2018; Zak, 2017). Therefore, it is recommended that interventions and programs to promote a culture of empathy and caring

summarized here should begin at the most senior level of the organization and be cascaded downward. As a result, organizational cultures that foster empathy in interpersonal interactions with both internal and external stakeholders will likely flourish in today's globally competitive market-place.

Most importantly, interventions aimed at leaders to enhance empathy and caring may indeed be important antidotes for observed destructive and toxic leadership practices. It is our hope that this article helps practitioners understand the meaningful impact of improving empathy in leaders on important organizational outcomes and overall employee health and well-being. However, further research will be required to replicate, extend, and validate these relationships, as well as provide additional support for our suggestions for enhancing empathetic and caring cultures in teams and organizations.

References

- Abbink, K., & Harris, D. (2019). In-group favouritism and out-group discrimination in naturally occurring groups. *PLoS ONE*, *14*, e0221616. http://dx.doi.org/10.1371/journal.pone.0221616
- Adler, A. B., Gunia, B. C., Bliese, P. D., Kim, P. Y., & LoPresti, M. L. (2017). Using actigraphy feedback to improve sleep in soldiers: An exploratory trial. Sleep Health, 3, 126–131. http://dx.doi.org/10.1016/ j.sleh.2017.01.001
- Ames, D. L., Jenkins, A. C., Banaji, M. R., & Mitchell, J. P. (2008). Taking another person's perspective increases self-referential neural processing. *Psychological Science*, 19, 642–644. http://dx.doi.org/10.1111/ j.1467-9280.2008.02135.x
- Badura, K. L., Grijalva, E., Newman, D. A., Yan, T. T., & Jeon, G. (2018). Gender and leadership emergence: A meta-analysis and explanatory model. *Personnel Psychology*, 71, 335–367. http://dx.doi.org/10.1111/peps.12266
- Barnes, C. M., Lucianetti, L., Bhave, S. P., & Christian, M. S. (2015). "You wouldn't like me when I'm sleepy": Leaders' sleep, daily abusive supervision, and work unit engagement. *Academy of Management Journal*, 58, 1419–1437. http://dx.doi.org/10.5465/amj.2013.1063
- Barsade, S. G., & O'Neill, O. A. (2014). What's love got to do with it? A longitudinal study of the culture of companionate love and employee and client outcomes in a long-term care setting. Administrative Science Quarterly, 59, 551–598. http://dx.doi.org/10.1177/0001839214538636
- Bartlett, L., Martin, A., Neil, A. L., Memish, K., Otahal, P., Kilpatrick, M., & Sanderson, K. (2019). A systematic review and meta-analysis of workplace mindfulness training randomized controlled trials. *Journal of Occupational Health Psychology*, 24, 108–126. http://dx.doi.org/10.1037/ocp0000146
- Batson, C. D., & Oleson, K. C. (1991). Current status of the empathy-altruism hypothesis. In M. S. Clark (Ed.), Prosocial behavior (pp. 62–85). Thousand Oaks, CA: SAGE.
- Böckler, A., Herrmann, L., Fynn-Mathis Trautwein, F. M., Holmes, T., & Singer, T. (2017). Know thy selves: Learning to understand oneself increases the ability to understand others. *Journal of Cognitive Enhancement*, *1*, 197–209. http://dx.doi.org/10.1007/s41465-017-0023-6
- Böckler, A., Tusche, A., Schmidt, P., & Singer, T. (2018). Distinct mental trainings differentially affect altruistically motivated, norm motivated, and self-reported prosocial behaviour. *Scientific Reports*, 8, 13560. http://dx.doi.org/10.1038/s41598-018-31813-8
- Bohnet, I., van Green, A., & Bazerman, M. H. (2016). When performance trumps gender bias: Joint versus separate evaluation. *Management Science*, 62, 1225–1234. http://dx.doi.org/10.1287/mnsc.2015.2186
- Bono, J. E., Braddy, P. W., Liu, Y., Gilbert, E. K., Fleenor, J. W., Quast, L. N., & Center, B. A. (2017). Dropped on the way to the top: Gender and managerial derailment. *Personnel Psychology*, 70, 729–768. http:// dx.doi.org/10.1111/peps.12184
- Bozionelos, N., & Singh, S. K. (2017). The relationship of emotional intelligence with task and contextual performance: More than it meets the linear eye. *Personality and Individual Differences*, *116*, 206–211. http://dx.doi.org/10.1016/j.paid.2017.04.059
- Cameron, C. D., Hutcherson, C. A., Ferguson, A. M., Scheffer, J. A., Hadjiandreou, E., & Inzlicht, M. (2019).
 Empathy is hard work: People choose to avoid empathy because of its cognitive costs. *Journal of Experimental Psychology: General*, 148, 962–976. http://dx.doi.org/10.1037/xge0000595
- Cao, Y., Contreras-Huerta, L. S., McFadyen, J., & Cunnington, R. (2015). Racial bias in neural response to others' pain is reduced with other-race contact. *Cortex*, 70, 68–78. http://dx.doi.org/10.1016/ j.cortex.2015.02.010

- Casciaro, T., & Lobo, M. S. (2005). Competent jerks, lovable fools, and the formation of social networks. Harvard Business Review, 83, 92–99, 149.
- Catapano, R., Tormala, Z. L., & Rucker, D. D. (2019). Perspective taking and self-persuasion: Why "putting yourself in their shoes" reduces openness to attitude change. *Psychological Science*, 30, 424–435. http://dx.doi.org/10.1177/0956797618822697
- Chang, E. H., Milkman, K. L., Gromet, D. M., Rebele, R. W., Massey, C., Duckworth, A. L., & Grant, A. M. (2019). The mixed effects of online diversity training. *Proceedings of the National Academy of Sciences*, USA, 116, 7778–7783. http://dx.doi.org/10.1073/pnas.1816076116
- Chanland, D. E., & Murphy, W. M. (2017). Propelling diverse leaders to the top: A developmental network approach. Human Resource Management, 57, 111–126. http://dx.doi.org/10.1002/hrm.21842
- Chen, Z., Williams, K. D., Fitness, J., & Newton, N. C. (2008). When hurt will not heal: Exploring the capacity to relive social and physical pain. *Psychological Perspectives*, 19, 789–795. http://dx.doi.org/10.1111/ j.1467-9280.2008.02158.x
- Chong, A., Malavasi, F., Israel, S., Khor, C. C., Yap, V. B., Monakhov, M., . . . Ebstein, R. P. (2017). ADP ribosyl-cyclases (CD38/CD157), social skills and friendship. *Psychoneuroendocrinology*, 78, 185–192. http://dx.doi.org/10.1016/j.psyneuen.2017.01.011
- Crain, T. L., Hammer, L. B., Bodner, T., Olson, R., Kossek, E. E., Moen, P., & Buxton, O. M. (2019). Sustaining sleep: Results from the randomized controlled work, family, and health study. *Journal of Occupational Health Psychology*, 24, 180–197. http://dx.doi.org/10.1037/ocp0000122
- Cuddy, A. J. C., Glick, P., & Beninger, A. (2011). The dynamics of warmth and competence judgments, and their outcomes in organizations. *Research in Organizational Behavior*, 31, 73–98. http://dx.doi.org/10.1016/ j.riob.2011.10.004
- Daughters, K., Manstead, A. S. R., Ten Velden, F. S., & De Dreu, C. K. W. (2017). Oxytocin modulates third-party sanctioning of selfish and generous behavior within and between groups. *Psychoneuroendocri*nology, 77, 18–24. http://dx.doi.org/10.1016/j.psyneuen.2016.11.039
- De Cremer, D., van Dijke, M., Schminke, M., De Schutter, L., & Stouten, J. (2018). The trickle-down effects of perceived trustworthiness on subordinate performance. *Journal of Applied Psychology*, 103, 1335–1357. http://dx.doi.org/10.1037/apl0000339
- Development Dimensions International. (2014). Is empathy boss? The science behind soft skills—what really drives performance? Retrieved from https://www.ddiworld.com/hirezleadership/is-empathy-boss
- Dewall, C. N., Macdonald, G., Webster, G. D., Masten, C. L., Baumeister, R. F., Powell, C., . . . Eisenberger, N. I. (2010). Acetaminophen reduces social pain: Behavioral and neural evidence. *Psychological Science*, 21, 931–937. http://dx.doi.org/10.1177/0956797610374741
- Dickerson, S. S. (2008). Emotional and physiological responses to social-evaluative threat. Social and Personality Psychology Compass, 2, 1362–1378. http://dx.doi.org/10.1111/j.1751-9004.2008.00095.x
- Dickerson, S. S., & Kemeny, M. E. (2004). Acute stressors and cortisol responses: A theoretical integration and synthesis of laboratory research. *Psychological Bulletin*, 130, 355–391. http://dx.doi.org/10.1037/0033-2909.130.3.355
- Durso, G. R., Luttrell, A., & Way, B. M. (2015). Over-the-counter relief from pains and pleasures alike: Acetaminophen blunts evaluation sensitivity to both negative and positive stimuli. *Psychological Science*, 26, 750–758. http://dx.doi.org/10.1177/0956797615570366
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. Science, 302, 290–292. http://dx.doi.org/10.1126/science.1089134
- Elovainio, M., Ferrie, J. E., Singh-Manoux, A., Gimeno, D., De Vogli, R., Shipley, M., . . . Kivimäki, M. (2010).
 Organisational justice and markers of inflammation: The Whitehall II study. *Occupational and Environmental Medicine*, 67, 78–83. http://dx.doi.org/10.1136/oem.2008.044917
- Elovainio, M., Heponiemi, T., Sinervo, T., & Magnavita, N. (2010). Organizational justice and health; review of evidence. *Psicologia*, 32, B5–B9.
- Ferguson, J. N., Young, L. J., Hearn, E. F., Matzuk, M. M., Insel, T. R., & Winslow, J. T. (2000). Social amnesia in mice lacking the oxytocin gene. *Nature Genetics*, 25, 284–288. http://dx.doi.org/10.1038/77040
- Feser, C., Mayol, F., & Srinivasan, R. (2018, December 22). Decoding leadership: What really matters. Retrieved from https://www.mckinsey.com/featured-insights/leadership/decoding-leadership-what-really-matters?cid=soc-web
- Gaultney, J. E. (2014). Association of weekend to weekinght changes in sleep duration with peer and supervisor ratings of business leaders' performance. The Psychologist Manager Journal, 17, 112–127. http://dx.doi.org/ 10.1037/mgr0000016
- Gaultney, J. E. (2016). Indirect effects of inconsistent sleep on supervisor's ratings through leadership of others. The Psychologist Manager Journal, 19, 23–40. http://dx.doi.org/10.1037/mgr0000039

- Hildebrandt, L. K., McCall, C., & Singer, T. (2017). Differential effects of attention-, compassion-, and socio-cognitively based mental practices on self-reports of mindfulness and compassion. *Mindfulness*, 8, 1488–1512. http://dx.doi.org/10.1007/s12671-017-0716-z
- Hodzic, S., Scharfen, J., Ripoll, P., Holling, H., & Zenasni, F. (2018). How efficient are emotional intelligence trainings: A meta-analysis. *Emotion Review*, 10, 138–148. http://dx.doi.org/10.1177/1754073917708613
- Hu, J., Zhang, Z., Jiang, K., & Chen, W. (2019). Getting ahead, getting along, and getting prosocial: Examining extraversion facets, peer reactions, and leadership emergence. *Journal of Applied Psychology*, 104, 1369– 1386. http://dx.doi.org/10.1037/apl0000413
- Hunt, V., Prince, S., Dixon-Fyle, S., & Yee, L. (2018, January). Delivering through diversity. McKinsey & Company. Retrieved from https://www.mckinsey.com/~/media/mckinsey/business%20functions/organization/our%20insights/delivering%20through%20diversity/delivering-through-diversity_full-report.ashx
- Joseph, D. L., Jin, J., Newman, D. A., & O'Boyle, E. H. (2015). Why does self-reported emotional intelligence predict job performance? A meta-analytic investigation of mixed EI. *Journal of Applied Psychology*, 100, 298–342. http://dx.doi.org/10.1037/a0037681
- Kemeny, M. E. (2009). Psychobiological responses to social threat: Evolution of a psychological model in psychoneuroimmunology. Brain, Behavior, and Immunity, 23, 1–9. http://dx.doi.org/10.1016/ i.bbi.2008.08.008
- Kivimäki, M., Ferrie, J. E., Brunner, E., Head, J., Shipley, M. J., Vahtera, J., & Marmot, M. G. (2005). Justice at work and reduced risk of coronary heart disease among employees: The Whitehall II study. Archives of Internal Medicine, 165, 2245–2251. http://dx.doi.org/10.1001/archinte.165.19.2245
- Kraskikova, D. V., Green, S. G., & LeBreton, J. M. (2013). Destructive leadership: A theoretical review, integration, and future research agenda. *Journal of Management*, 39, 1308–1338. http://dx.doi.org/10.1177/0149206312471388
- Lanzetta, J. T., & Englis, B. G. (1989). Expectations of cooperation and competition and their effects on observers' vicarious emotional responses. *Journal of Personality and Social Psychology*, 56, 543–554. http://dx.doi.org/10.1037/0022-3514.56.4.543
- Lehman, B. J., & Conley, K. M. (2010). Momentary reports of social-evaluative threat predict ambulatory blood pressure. Psychological Science and Personality Science, 1, 51–56. http://dx.doi.org/10.1177/ 1948550609354924
- Longmire, N. H., & Harrison, D. A. (2018). Seeing their side versus feeling their pain: Differential consequences of perspective-taking and empathy at work. *Journal of Applied Psychology*, 103, 894–915. http://dx.doi.org/ 10.1037/apl0000307
- Maslach, C. (2017). Finding solutions to the problem of burnout. Consulting Psychology Journal: Practice and Research, 69, 143–152. http://dx.doi.org/10.1037/cpb0000090
- Mattingly, V., & Kraiger, K. (2018). Can emotional intelligence be trained? A meta-analytical investigation. Human Resource Management Review, 29, 140–155. http://dx.doi.org/10.1016/j.hrmr.2018.03.002
- Miao, C., Humphrey, R. H., & Qian, S. (2017). Are the emotionally intelligent good citizens or counterproductive? A meta-analysis of emotional intelligence and its relationships with organizational citizenship behavior and counterproductive work behavior. *Personality and Individual Differences*, 116, 144–156. http://dx.doi.org/10.1016/j.paid.2017.04.015
- Miao, C., Humphrey, R. H., Qian, S., & Pollack, J. M. (2019). The relationship between emotional intelligence and the dark triad personality traits: A meta-analytic review. *Journal of Research in Personality*, 78, 189–197. http://dx.doi.org/10.1016/j.jrp.2018.12.004
- Miao, C., Humphrey, R., & Quian, S. (2016). Leader emotional intelligence and subordinate job satisfaction: A meta-analysis of main, mediator, and moderator effects. *Personality and Individual Differences*, 102, 13–24. http://dx.doi.org/10.1016/j.paid.2016.06.056
- Nook, E. C., Ong, D. C., Morelli, S. A., Mitchell, J. P., & Zaki, J. (2016). Prosocial conformity: Prosocial norms generalize across behavior and empathy. *Personality and Social Psychology Bulletin*, 42, 1045–1062. http://dx.doi.org/10.1177/0146167216649932
- Nowack, K. (2014). Taking the sting out of feedback. Talent Development Magazine, 68, 50-54.
- Nowack, K. M. (2016). Toxic bosses may cause health risk. Talent Management Magazine, 12, 26-29, 56.
- Nowack, K. (2017). Sleep, emotional intelligence, and interpersonal effectiveness: Natural bedfellows. Consulting Psychology Journal: Research and Practice, 69, 66–79. http://dx.doi.org/10.1037/cpb0000077
- Nowack, K. M., & Munro, A. (2019). Emotional and social competency: The female advantage. *Training Journal, June 2019*, 29–31.
- Nowack, K. M., & Munro, A. (2019). The upside, downside and dark side of emotional and social competence. Training Journal, July 2019, 25–27.

- Nowack, K., & Zak, P. (2017). Brain trust. Talent Economy Magazine, 2, 28-33.
- Nyberg, A., Alfredsson, L., Theorell, T., Westerlund, H., Vahtera, J., & Kivimäki, M. (2009). Managerial leadership and ischaemic heart disease among employees: The Swedish WOLF study. *Occupational and Environmental Medicine*, 66, 51–55. http://dx.doi.org/10.1136/oem.2008.039362
- O'Boyle, E. H., Forsyth, D. R., Banks, G. C., & McDaniel, M. A. (2012). A meta-analysis of the dark triad and work behavior: A social exchange perspective. *Journal of Applied Psychology*, 97, 557–579. http:// dx.doi.org/10.1037/a0025679
- Ou, A. Y., Waldman, D. A., & Peterson, S. J. (2015). Do humble CEOs matter? An examination of CEO humility and firm outcomes. *Journal of Management*, 44, 1147–1173. http://dx.doi.org/10.1177/0149206315604187
- Porath, C. L., Gerbasi, A., & Schorch, S. L. (2015). The effects of civility on advice, leadership, and performance. *Journal of Applied Psychology*, 100, 1527–1541. http://dx.doi.org/10.1037/apl0000016
- Porath, C., & Pearson, C. (2009). The cost of bad behavior. Organizational Dynamics, 39, 64–71. http://dx.doi.org/10.1016/j.orgdyn.2009.10.006
- Prusik, M., & Szulawski, M. (2019). The relationship between the dark triad personality traits, motivation at work, and burnout among HR recruitment workers. Frontiers in Psychology, 10, 1290. http://dx.doi.org/ 10.3389/fpsyg.2019.01290
- Riess, H., Neporent, L., & Alda, A. (2018). The empathy effect: Seven neuroscience-based keys for transforming the way we live, love, work, and connect across differences. Boulder, CO: Sounds of Truth.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). Utrecht Work Engagement Scale-17 [Database record]. APA PsycTests. http://dx.doi.org/10.1037/t07164-000
- Schoen, M., & Nowack, K. (2013). Reconditioning the stress response reduces the inflammatory cytokine IL-6 and influences resilience: A pilot study. *Complementary Therapies in Clinical Practice*, 19, 83–88. http:// dx.doi.org/10.1016/j.ctcp.2012.12.004
- Schumann, K., Zaki, J., & Dweck, C. S. (2014). Addressing the empathy deficit: Beliefs about the malleability of empathy predict effortful responses when empathy is challenging. *Journal of Personality and Social Psychology*, 107, 475–493. http://dx.doi.org/10.1037/a0036738
- Schyns, B., & Schilling, J. (2013). How bad are the effects of bad leaders? A meta-analysis of destructive leadership and its outcomes. *The Leadership Quarterly*, 24, 138–158. http://dx.doi.org/10.1016/j.leaqua.2012.09.001
- Shirom, A., Toker, S., Alkaly, Y., Jacobson, O., & Balicer, R. (2011). Work-based predictors of mortality: A 20-year follow-up of healthy employees. *Health Psychology*, 30, 268–275. http://dx.doi.org/10.1037/ a0023138
- Singer, T., Snozzi, R., Bird, G., Petrovic, P., Silani, G., Heinrichs, M., & Dolan, R. J. (2008). Effects of oxytocin and prosocial behavior on brain responses to direct and vicariously experienced pain. *Emotion*, 8, 781–791. http://dx.doi.org/10.1037/a0014195
- Spence Laschinger, H. K., Leiter, M. P., Day, A., Gilin-Oore, D., & Mackinnon, S. P. (2012). Building empowering work environments that foster civility and organizational trust: Testing an intervention. *Nursing Research*, 61, 316–325. http://dx.doi.org/10.1097/NNR.0b013e318265a58d
- Stallen, M., De Dreu, C. K. W., Shalvi, S., Smidts, A., & Sanfey, A. G. (2012). The herding hormone: Oxytocin stimulates in-group conformity. *Psychological Science*, 23, 1288–1292. http://dx.doi.org/10.1177/0956797612446026
- Stocker, D., Keller, A. C., Meier, L. L., Elfering, A., Pfister, I. B., Jacobshagen, N., & Semmer, N. K. (2019).
 Appreciation by supervisors buffers the impact of work interruptions on well-being longitudinally. *International Journal of Stress Management*, 26, 331–343. http://dx.doi.org/10.1037/str0000111
- Tabibnia, G., & Radecki, D. (2018). Resilience training that can change the brain. Consulting Psychology Journal, 70, 59–88. http://dx.doi.org/10.1037/cpb0000110
- Vaughn, D. A., Savjani, R. R. S., Cohen, M. S., & Eagleman, D. M. (2018). Empathic neural responses predict group allegiance. Frontiers in Human Neuroscience, 12, 302. http://dx.doi.org/10.3389/fnhum.2018.00302
- Vegchel, N. V., de Jonge, J., Bakker, A. B., & Schaufeli, W. B. (2002). Testing global and specific indicators of rewards in the effort-reward imbalance model: Does it make any difference? European Journal of Work and Organizational Psychology, 11, 403–421. http://dx.doi.org/10.1080/13594320244000265
- Vollberg, M. C., & Cikara, M. (2018). The neuroscience of intergroup emotion. Current Opinion in Psychology, 24, 48–52. http://dx.doi.org/10.1016/j.copsyc.2018.05.003
- Wager, N., Fieldman, G., & Hussey, T. (2003). The effect on ambulatory blood pressure of working under favourably and unfavourably perceived supervisors. *Occupational and Environmental Medicine*, 60, 468– 474. http://dx.doi.org/10.1136/oem.60.7.468
- Waldman, D. A., Wang, D., & Fenters, V. (2016). The added value of neuroscience methods in organizational research. Organizational Research Methods, 22, 223–249. http://dx.doi.org/10.1177/1094428116642013

- Watkins, T., & Umphress, E. E. (2020). Strong body, clear mind: Physical activity diminishes the effects of supervisor interpersonal injustice. *Personnel Psychology*. Advance online publication. http://dx.doi.org/ 10.1111/peps.12384
- Wiley, J. W., Eichenauer, C., & Zhang, H. (2019, April). A taxonomy of what employees most want from their immediate manager. Poster session presented at the 34th Annual Society for Industrial and Organizational Psychology Conference, Washington, DC.
- Wong, J. H., & Kelloway, E. K. (2016). What happens at work stays at work? Workplace supervisory social interactions and blood pressure outcomes. *Journal of Occupational Psychology*, 21, 133–141. http:// dx.doi.org/10.1037/a0039900
- Xu, X., Zuo, X., Wang, X., & Han, S. (2009). Do you feel my pain? Racial group membership modulates empathic neural responses. *The Journal of Neuroscience*, 29, 8525–8529. http://dx.doi.org/10.1523/ JNEUROSCI.2418-09.2009
- Yoo, S. S., Gujar, N., Hu, P., Jolesz, F. A., & Walker, M. P. (2007). The human emotional brain without sleep—A prefrontal amygdala disconnect. *Current Biology*, 17, R877–R878. http://dx.doi.org/10.1016/ j.cub.2007.08.007
- Zak, P. (2017). Trust factor: The science of creating high-performance companies. New York, NY: AMACOM.
 Zak, P. (2018). The neuroscience of high-trust organizations. Consulting Psychology Journal, 70, 45–58. http://dx.doi.org/10.1037/cpb0000076
- Zak, P. J., & Barraza, J. A. (2013). The neurobiology of collective action. Frontiers in Neuroscience, 7, 211. http://dx.doi.org/10.3389/fnins.2013.00211
- Zak, P. J., Stanton, A. A., & Ahmadi, S. (2007). Oxytocin increases generosity in humans. PLoS ONE, 2, e1128. http://dx.doi.org/10.1371/journal.pone.0001128
- Zloteanu, M., Bull, P., & Richardson, D. C. (2019, September 25). Emotion recognition and deception detection. *PsyArXiv*. http://dx.doi.org/10.31234/osf.io/crzne
- Zuo, X., & Han, S. (2013). Cultural experiences reduce racial bias in neural responses to others' suffering. Culture and Brain, 1, 34–46. http://dx.doi.org/10.1007/s40167-013-0002-4

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