Wise interventions in organizations

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A R T I C L E   I N F O

A B S T R A C T

The subjective meanings employees assign to their understandings of themselves, others, and their environments influence an array of important work attitudes and behaviors. We review theory and research on wise interventions that illustrate three fundamental motives that underlie this subjective meaning-making process: the need to understand, the need for self-integrity, and the need to belong. Understanding how employees respond to organizational contexts that call into question or threaten these fundamental motives can potentially enable both organizations and their employees to achieve their goals better. Prior research has shown that wise interventions can bring about long-term beneficial outcomes in the domains of academic performance, stress and health, relationship satisfaction, and conflict reduction. We seek to integrate wise interventions and organizational behavior to explore where, when, and how addressing the fundamental needs of understanding, self-integrity, and belonging can lead to behaviors and attitudes that are beneficial for employees and employers alike. We examine when employees' subjective meanings are likely to be amenable to influence by wise interventions, such as during key transition points that may be person-centered (e.g., when employees take a new job) or organization-centered (e.g., the introduction of organizational change). We review interventions that have occurred within organizational settings and consider how interventions tested in other contexts (e.g., education) may be applied to organizations. A potentially fruitful liaison awaits organizational behavior researchers interested in the application of wise interventions.

Introduction

Organizations are likely to be effective when employees are willing and able to contribute to organizational interests, as reflected in their work behaviors (e.g., in-role and extra-role performance) and attitudes (e.g., commitment). Challenges for employees arise during times of transition, such as when they are onboarded or promoted to a new position, or when the organization is undergoing significant change such as layoffs. Approaches to enhancing employees' contributions include: (1) creating work environments that motivate and enable them to perform, and (2) bringing about lasting changes in employees that better position them to fulfill their responsibilities. For example, if authorities have decided that the key to organizational success is better teamwork, they may change the reward system (e.g., to group- rather than individually-based incentives) or physical architecture (e.g., to have more common spaces in which employees can easily come together). Furthermore, employees may receive training in how to work better in teams.

As worthwhile as these approaches are, they are incomplete when they are not attuned to the subjective ways in which people perceive their environments and themselves. Consequently, they may overlook the critical role that psychological construal plays in fostering adaptive work behaviors and attitudes. The emerging literature on wise interventions (Walton & Crum, 2021; Walton & Wilson, 2018), when applied in organizational contexts, has potential to redress this "error of omission".

Wise interventions refer to theory-based alterations that are attuned to the ways that people construe themselves and the world around them. Whereas they are objectively small in certain ways, they can change the subjective meaning that people assign to themselves, to other people, and to situations, and in so doing can engender more constructive ways for people to function (Walton, 2014). It is important to clarify the meaning of the word *wise*. We build on Steele (1997) who used the term "wise schooling" to refer to educational programs that are sensitive to the way that students from diverse backgrounds construe their environments. *Wise* refers to psychological processes and not to the positive outcomes they can engender. As Walton and Wilson (2018) put it, "wise interventions . . . focus on (are 'wise to') the meanings and inferences people draw about themselves, other people, or a situation they are in" (p. 618).

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By targeting psychological processes, wise interventions foster changes in how people construe themselves, others, and their environments, which have been shown to produce lasting positive effects on important beliefs and behaviors. For example, Walton and Cohen (2011) found that a one-hour intervention delivered to African-American college students during their freshman year designed to address their concerns about whether they belonged in college led them to perform significantly better throughout their college careers. Moreover, three to five years after completing college, they were shown to have greater life and career satisfaction relative to their counterparts who were in the control condition a full seven to nine years earlier (Brady, Cohen, Jarvis, & Walton, 2020).

Research on wise interventions is guided by three important principles. As Walton and Wilson (2018) suggested, people have multiple fundamental needs: the need to understand (themselves, other people, and social situations; Heider, 1958), the need for self-integrity (Steele, 1988; see also Cohen & Sherman, 2014) and the need to belong (Baumeister & Leary, 1995). Second, ways of thinking emanating from these needs influence functioning and important life outcomes. For example, a new manager feeling insecure about being promoted to the role may perceive her direct report's poor performance to indicate that she was a bad boss versus being something normal and workable. Replacing the former understanding with the latter is likely to lead to more constructive reactions on the part of the new boss. Or, when certain needs are threatened, such as the need for self-integrity or the need to belong, the ensuing construals also may lead to reactions, such as being resistant, defensive, or withdrawing from social interactions that can set off negative feedback loops that inhibit learning or other adaptive responses. Third, wise interventions can help shape how people understand themselves, others, and their environments, or foster other ways to think about threats to their needs for self-integrity and to belong. By interacting with ongoing personal and social forces, wise interventions can bring about lasting positive changes in attitude and behavior. We next discuss examples which, while not drawn from the workplace, have implications for improving employees' organizational life.

Wise interventions emanating from the need to understand

People's needs to understand are manifested in their tendencies to draw inferences about themselves and their social world which are ultimately in the service of guiding their behavior. Sometimes, the substance of these inferences leads to maladaptive behavior that may unfortunately be self-reinforcing. Wise interventions can lead people to make alternative inferences that may not only lead to a more adaptive response in the near term, but also set in motion a positive chain of events that leads to the sustainability of the adaptive response. Consider the plight of being low in self-esteem. Although the phenomenology of low self-esteem is unpleasant, low self-esteem people (low SEs) tend to think and act in ways that make it more likely for them to continue to think badly of themselves (e.g., Brockner, 1988; Murray, Holmes, & Collins, 2006; Swann, 1999). For example, in response to perceived slights from their relationship partners they tend to be overly sensitive and off-putting, thereby inviting additional rejections from their partners.

Promisingly, however, Marigold, Holmes, and Ross (2007) and Marigold, Holmes, and Ross (2010) found that it is possible to break the vicious cycle of low self-esteem by merely asking low SEs to "think of a time when your partner told you how much s/he liked something about you . . . Explain why your partner admired you. Describe what it meant to you and its significance for your relationship" (2010; p. 626). Relative to the control condition, this brief "abstract reframing" induction caused people with low self-esteem to feel more secure in their relationships and to evaluate

them more positively. Moreover, they were perceived by their partners to have behaved more positively for weeks after the intervention.

Just as low self-esteem people think and act in ways that perpetuate their low self-esteem, a similar dynamic applies to groups in conflict with each other. Each side tends to see the worst in the other, such that seemingly innocuous acts may be taken as additional "evidence" of the other group's untrustworthiness. Research conducted with groups with a long history of mistrust (Israelis and Palestinians) showed that perceptions of the other side may be improved by a relatively brief wise intervention (Goldenberg et al., 2018). As part of a leadership development workshop conducted in Israel, participants in the experimental condition were informed that groups in general can change, and that what makes a leader great is the ability to recognize that groups need not be rigid or unchanging in their beliefs and behaviors, but that they are malleable. A full six months after this "group malleability" induction, participants (all Israeli) expressed less negative attitudes toward the Palestinians, were more hopeful regarding future relations with the Palestinians, and behaved more positively toward Palestinians (e.g., they allocated more money to them in the dictator game).

Wise interventions emanating from the need for self-integrity

Whereas people seek to understand themselves and their social worlds to guide their behavior, they have an additional motivation to see themselves as moral and adaptive, or, as Steele (1988) put it, as having global self-integrity (i.e., "good, competent, unitary, stable, coherent, capable of free choice and capable of controlling important outcomes," p. 262). This motive can be threatened by a myriad of events in everyday life, from negative feedback from one's boss, to an argument with one's child, to the suggestion that behaviors that were freely engaged in may have put one at risk for disease (Sherman & Cohen, 2006). Wise interventions can shape the inferences that people make in response to these potential threats to how they see themselves.

For example, one such type of external challenge that may instantiate concerns about global self-integrity is stereotype threat (Steele, 1997). Stereotype threat refers to being in a situation in which one is aware that a negative stereotype about one's group is relevant. When this occurs, the knowledge that one can be judged as a member of a negatively stereotyped group can serve as an extra cognitive burden, a "threat in the air" that can lead to stress and interfere with performance on the stereotype-relevant task. Examples of stereotypes that have led to the experience of associated threat include: (1) African-Americans and Latino Americans are less intellectually capable than their White and Asian American counterparts, and (2) women have less capability in STEM (science, technology, engineering, and math) topics than men. For useful discussions of stereotype threat in work organizations, see Roberson and Kulik (2007) and Walton, Murphy, and Ryan (2015).

The wise intervention of self-affirmation (Cohen & Sherman, 2014; Steele, 1988) has been shown to influence the self-narrative of those experiencing stereotype threat in the domains of race and gender within educational settings. The exercise consists of having people reflect on values of personal importance, and how such values have played a meaningful role in their lives. Cohen, Sherman and their colleagues found that the racial performance gap in which middle school black students did worse than their white counterparts was reduced for months and even years when they engaged in self-affirmation activities administered by their teachers (relative to a control condition) at the beginning of the school year (Cohen, Garcia, Apfel, & Master, 2006; Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009; Sherman et al., 2013;

for a review see Sherman, Lokhande, Müller, & Cohen, 2021). Other research has found that the tendency for women to perform worse than men in an MBA program was eliminated for the entire first term when students completed the self-affirmation exercise shortly after their entry into the program (Kinias & Sim, 2016), and this was particularly true when the type of self-affirmation was congruent with students' self-construals (Kim, Brockner, & Block, 2020).

Wise interventions emanating from the need to belong

The need to belong reflects the fact that we are social animals (Aronson & Aronson, 2008); we want to feel connected with others. In the organizational justice literature, for instance, the need to feel valued, included and respected is a key premise of relational explanations (e.g., Tyler & Lind, 1992) of why employees respond more positively when they have been treated more fairly by their employers. Particularly when people's need to belong has been threatened (whether through unfair treatment or other instigators), an array of wise interventions has been shown to yield long-lasting positive effects on their beliefs and behaviors. For instance, the aforementioned study by Walton and Cohen (2011) offered African-American college students who were prone to feel out of place at an elite academic institution an alternative, non-race-based, way to understand why they felt as if they did not belong. This intervention has been successfully scaled to address achievement gaps in diverse university settings (Walton & Yeager, 2020; Yeager et al., 2016).

Other studies have used different wise interventions on people drawing on their need to belong. For instance, Cialdini's (1984) principle of "social proof" in which people's behavior may be altered by giving them information about how others behave is predicated on people's need to belong. Studies have shown that behaviors as disparate as paying taxes, re-using towels when staying as guests in hotels, and consuming less home energy shift in the direction of information provided about what others have done (Goldstein, Cialdini, & Griskevicius, 2008; Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007; Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2018; see Miller & Prentice, 2016 for review). People conform to group norms, in part, because they want to be perceived as good group members, which is a core aspect of how they see themselves (Binning, Brick, Cohen, & Sherman, 2015). As further evidence that the need to belong underlies these results, researchers found that the tendency to conform was even more pronounced when information about how others had behaved was accompanied by requests to "join in" and "do it together" (Carr & Walton, 2014).

Chapter overview

The remainder of the chapter has been divided into four sections, all designed to forge linkages between the wise intervention literature and theory/research in organizational behavior. First, we delineate workplace conditions and experiences that are likely to threaten or at least call into question one or more of employees' three fundamental needs. Doing so allows us to identify when wise interventions have the greatest potential to exert positive influence on employees' attitudes and behaviors. Second, we borrow from key principles in the appraisal theory of stress (Lazarus & Folkman, 1984) and empirical research conducted outside of organizational settings to delineate the processes through which wise interventions exert their positive effects. The third section of the chapter describes some of the relatively few studies that have examined wise interventions in the workplace.

Part of what makes wise interventions so intriguing is that "a little bit can go a long way;" objectively small or brief interventions can have significant effects for weeks, months, and even years. However, just because a little bit *can* go a long way does not mean that it *will*. For example, a recent study drawing on a social-belongingness intervention used successfully in educational settings did not have significant effects in the workplace (Mobasseri, Srivastava, & Kray, 2020). Hence, the fourth section discusses the processes responsible for producing sustained changes in employees' beliefs and behaviors, and the organizational conditions under which these processes are more versus less likely to be activated. We close by outlining outstanding questions and directions for future research on wise interventions in organizational settings.

An overview of our thinking appears in Fig. 1, which subsumes the following six points: First, people, both employees and managers alike, seek to satisfy multiple needs (to understand, for self-integrity, and to belong). Second, these needs may be threatened or called into question not only during transition points but also in response to more enduring organizational conditions. Third, the experience of threat to people's behaviors or beliefs is influenced by their appraisals (primary and secondary), such that the greatest threat occurs when the primary appraisal consists of high threat and the secondary appraisal consists of low resources. In Fig. 1 the primary appraisal arrow is drawn to the organizational system (reflecting that people likely first assess the context for potential threats) and the secondary appraisal arrow is drawn to the self-system (reflecting that people likely first assess the self for ability to cope with those threats). However, the model allows for the possibilities that primary appraisals also may be influenced by
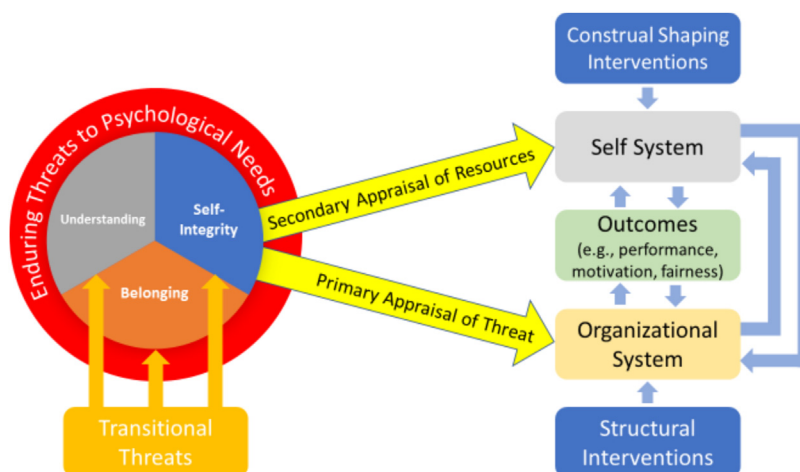
Fig. 1. Wise interventions: an organizing social psychological framework.

the self-system and secondary appraisals also may be influenced by the organizational system.

Fourth, wise interventions (construal-shaping interventions in the figure) bring about more adaptive responses to threat (better outcomes in the figure) by altering appraisals, in which the primary appraisal consists of reduced threat and/or the secondary appraisal consists of greater resources. Fifth, better outcomes can feed back to influence the self-system and the organizational system, and in so doing make such outcomes more likely to be sustained. Sixth, sustained change in behavior or belief is more likely when other contextual factors operating in the system (structural interventions in the figure) work in the same direction as the wise intervention.

At what point in time are wise interventions likely to be influential?

"I knew the old organization, its mission, its operation, its people, its culture. In that knowledge, I had a sense of identity and confidence about my company and myself. Now, I work for a new company, one fourth its former size. I find myself asking, who are we, and who am I?" (Brockner & Lee, 1995, p. 51), quoting a middle level manager in a telecommunications company whose organization had undergone massive layoffs.

Wise interventions are particularly likely to exert influence "at transition points when people's narratives about themselves and their circumstances are changing" (Walton & Wilson, 2018, p. 619), although they also may be quite impactful in the face of relatively enduring conditions (as we will consider below). However, it is not transition points per se that set the stage for wise interventions to be impactful, but rather the fact that transition points often challenge one or more of the three fundamental needs. As reflected in the quote above, for example, transitions can threaten people's sense of self.

The transitions that challenge people's fundamental needs can take multiple forms. In some, the impetus comes from individuals (hereafter called *person*-centered), such as when people join a new organization. An hour-long intervention on new hires which encouraged them to focus on their authentic best selves or signature strengths had a lasting positive effect on their work behaviors (Cable, Gino, & Staats, 2013). Six months later, relative to those in the control condition, participants in the intervention condition were less likely to turn over and more likely to attain favorable customer satisfaction ratings. Other personal transitions, such as when military veterans join the civilian workforce, can prompt a range of psychological challenges to people's need to understand and need to belong. Organizations can potentially mitigate the strains of such adjustments through wise, theory-based approaches (Shepherd, Sherman, MacLair, & Kay, 2020).

Person-centered transitions also include taking on a new role or responsibility within employees' current organizations. A frequent refrain we hear from participants in leadership development training programs is that the skill sets needed to be successful as individual contributors or as first-level supervisors are different from those needed at higher levels of management. This point was nicely captured in the title of a book written by the prominent executive coach, Goldsmith (2007): "*What Got You Here Won't Get You There*." The fact that taking on managerial responsibilities is a profound psychological transformation has not gone unnoticed. The interested reader may wish to consult books such as, "*Becoming a Manager*" (Hill, 2003) or *The First 90 Days* (Watkins, 2003) to learn more about the nature of the transformation. Wise interventions experienced by employees at the time that they take on new managerial responsibilities may be particularly likely to have significant effects.

In other transitions, the impetus comes from organizations (hereafter called *organization*-centered). For example, certain prominent points in time such as the start of an organization's new fiscal year may make transitions salient. This may be particularly true if the organization has decided to introduce "zero-based" budgeting, in which going-forward resource allocation decisions are not anchored to what was done before but rather are being made from scratch. In the educational arena, wise interventions that reduced racial and gender gaps in performance were administered when students of varying ages were in the middle of time-based transitions. Self-affirmation introduced at the beginning of the year in middle school reduced the racial gap in academic performance for months and even years (Cohen et al., 2009; Sherman et al., 2013). The belongingness manipulation examined by Walton and Cohen (2011) that reduced the racial gap in performance among undergraduates was introduced in participants' freshman year. Similarly, studies showing that self-affirmation can reduce the gender gap in MBA students' performance introduced the intervention during orientation (Kinias & Sim, 2016) or during the first few weeks of students' first semester in the program (Kim et al., 2020).

Indeed, there is evidence that at least certain kinds of wise interventions are especially likely to be influential during transitions. In one study researchers manipulated not only the presence or absence of the intervention of self-affirmation but also its timing (whether it occurred at the beginning of the school year when students were in transition or a few weeks later). An affirmation x timing interaction effect occurred, such that the buffering effect of the affirmation was more pronounced when it was introduced earlier rather than later in the school year (Cook, Purdie-Vaughns, Garcia, & Cohen, 2012). Earlier interventions can better shape students' narratives of their ongoing experiences— their ups and downs and how they make sense of them when they are new to the organization, in this case, the middle school (Sherman et al., 2013). A similar logic underlies the use of wise interventions as part of the college orientation process (Yeager et al., 2016).

Organizationally-focused transitions also refer to myriad changes taken in response to the external environment such as downsizing, growth, mergers, relocations, and restructurings to name a few. Whereas the quote above from the mid-level manager whose organization was undergoing layoffs illustrates how downsizing may be experienced as a threat to the self, it seems likely that all three self-regulatory needs may be threatened by various organizational changes. For example, consider the plight of long-time employees whose organization merged with another firm. It could take quite some time for them to understand the new rules of the game (threatening their need to understand) or to feel as if they are full-fledged members of the newly-formed company (threatening their need to belong).

Enduring conditions that challenge fundamental needs

Wise interventions are more impactful during transitions because that is when peoples' fundamental needs are likely to be challenged. This reasoning implies that wise interventions also are more likely to be influential even under enduring organizational conditions in which employees experience challenges to their fundamental needs. For example, when employees receive unclear or mixed signals about what is expected of them their understanding will be challenged. Such conditions include high levels of role ambiguity and role conflict (e.g., Jackson & Schuler, 1985), and "flavor of the month" organizational initiatives (e.g., Roberto & Levesque, 2005). Wise interventions that clarify people's understanding may be particularly beneficial in ambiguous or ill-defined situations.

Threats to self-integrity may be experienced in contexts in which the receipt of negative feedback is built into the very nature of the job itself, such as in many sales positions. Quite often, customers give salespeople negative feedback in the form of rejecting their pitches. Life insurance salespeople with optimistic attributional styles (who explain the receipt of negative feedback in self-protective rather than self-blaming ways) were more successful at their jobs and stayed longer than their more pessimistic counterparts (Seligman & Schulman, 1986). One interpretation of these findings is that the optimists suffered less of a threat to their global self-integrity when they encountered negative feedback from customers, which enabled them to perform better at their jobs for two reasons. First, they may have made an effort- or motivation-based attribution which induced them to "work harder" The optimistic attribution may have led rejected salespeople to emerge from the negative feedback with relatively positive beliefs about their chances for success in their future attempts to sell.

A second explanation is based on reduced defensiveness, which may have induced them to "work smarter." Studies have shown that self-affirmation makes people less defensive to self-threatening information (Sherman & Cohen, 2006), in which they are less likely to be self-serving in their attributions for success and failure, and more likely to take personal responsibility when they, or their groups, fall short (Sherman & Kim, 2005). Feeling less consumed by protecting their egos in response to the prior rejection, the salesperson who makes optimistic explanations may be more open-minded or receptive to learn how to be more effective. In short, wise interventions may lead to higher levels of performance when they encourage employees whose jobs are laden with negative feedback to make optimistic attributions for their setbacks.

Unlike in sales positions in which employees frequently experience negative feedback in concrete ways, employees may also regularly encounter more symbolic threats to global self-integrity. The organizational justice literature has shown that employees' perceptions of fairness are multiply-determined (Colquitt, 2001), emanating from outcomes and the procedures (decision-based and interpersonal-based) accompanying the receipt of the outcomes. According to relational models of justice (e.g., Tyler & Lind, 1992), fairness information has important symbolic value. When people are treated unfairly, for example, when they are not allowed to have input into decisions that will affect them, or when they are not given good explanations of why certain decisions were made, the symbolic message may be that the organization does not think highly enough of them (to provide input or to be given good explanations). Indeed, much research has shown that when people are on the receiving end of unfair treatment they react negatively, for example, with low organizational commitment and motivation in the workplace (Colquitt, Greenberg, & Zapata-Phelan, 2005), and with reduced trust for decision-making authorities in the legal arena (Lind & Tyler, 1988).

Interventions to counteract the negative effects of unfair treatment can take two forms, one preventive and the other restorative. The preventive form consists of trying to influence authorities to make decisions more fairly in the first place. When teachers received a brief intervention designed to help them be more respectful (that is, interpersonally fair) when disciplining their students—in which teachers were reminded that "a teacher who makes his or her students feel heard, valued, and respected shows them that school is fair and they can grow and succeed there"—the rate of student suspension was cut in half (Okonofua, Paunesku, & Walton, 2016). This information, targeted at the teachers, illustrates how wise interventions can be implemented at higher levels in an organization's hierarchy (i.e., with teachers as well as students, managers as well as employees). The restorative

form of intervention is introduced after people have experienced unfairness. If low fairness work environments elicit negative reactions because they are experienced as a threat to employees' sense of self, employees may ward off the adverse effects of being treated unfairly by engaging in self-affirmation (Wiesenfeld, Brockner, & Martin, 1999).

Finally, an enduring threat to people's need to belong is a non-inclusive work environment in which employees are told concretely or symbolically that they have not been fully accepted as organizational members. This can take multiple forms, such as not being included in formal decision-making or not being invited to informal outings. The importance employees assign to workplace inclusion is likely on the rise, for multiple reasons, including the sizable demographic changes in the United States' population. Millennial and Gen Z employees are much more diverse than were previous generations. For instance, 56% of the 87 million millennials are white, down from 72% of the 76 million baby boomers. Moreover, there has been a veritable explosion of interest in diversity, equity, and inclusion in the wake of racially-motivated violence in the United States. Indeed, how organizations and our society at large go about addressing matters of diversity, equity, and inclusion, and in so doing satisfy people's fundamental need to belong, will be of great significance in the years ahead.

How wise interventions operate: specifying the mechanisms

Previously, we asserted that wise interventions exert influence by inducing people to think differently in ways that are responsive to their needs to understand, for self-integrity, and to belong. We unpack what it means to "think differently" with an analogy to theorizing in the literature on psychological stress. More specifically, Lazarus and Folkman (1984) assign significance to two types of appraisal, primary and secondary. Primary appraisal reflects how much people perceive the situation as threatening to their well-being, whereas secondary appraisal refers to how much people believe that resources can be brought to bear (by themselves or others) to deal with the threat effectively. Sub-optimal self-regulation is most likely to occur when people believe that the resources that can be brought to bear will not be adequate to deal with the demands posed by the threat. This reasoning further suggests that wise interventions may exert positive influence by altering people's primary and/or secondary appraisals. We now consider these possibilities within the context of studies pertaining to the need to understand, the need for self-integrity, and the need to belong.

Need to understand

Wise interventions may facilitate performance by inducing people to make attributions for their experiences that are less self-threatening. For example, when preparing for an exam, college students quite often feel physiologically or psychologically aroused. Moreover, a common interpretation of the arousal is that it is a sign of threat, as reflected in emotions such as anxiety or worry. However, it has long been known that people's interpretations of their arousal give rise to the nature of their emotional experience (Schachter & Singer, 1962). Thus, a wise intervention could take the form of inducing students to perceive their arousal as less of a sign of threat and more as an indicator of caring about the outcome or even as "nervous excitement." Indeed, several studies have shown that by altering the primary appraisal of the arousal to be less threat-laden, performance may be enhanced in both the short and long term (three months later; Brady, Hard, & Gross, 2018; Jamieson, Mendes, & Nock, 2013). Writing about one's thoughts before a challenging test, for example, lead to improved performance in both laboratory and classroom settings, especially

among those high in test anxiety (Ramirez & Beilock, 2011; see also Creswell, Dutcher, Klein, Harris, & Levine, 2013).

Wise interventions that alter the secondary appraisal also may help. In an early demonstration, Dweck (1975) showed that students with a history of giving up in the face of negative feedback could become resilient if they had been trained to attribute their failure to lack of effort. Failure seen as due to lack of effort has potential to engender less pejorative secondary appraisals. After all, the remedy for failure due to lack of effort is to try harder, which most people are likely to perceive as a resource they can bring to the task at hand. Implementation-intention interventions (Gollwitzer, 1999) also may be influential by engendering more positive secondary appraisals. In this approach, people anticipate obstacles that may interfere with goal attainment and develop an effective plan to overcome them. It seems likely that the development of such a plan is part and parcel of people mustering the resources needed to deal with the threat that the obstacle might otherwise pose.

Wise interventions also may affect people's primary *and* secondary appraisals. Consistent with empirical research showing that stress can enhance or debilitate performance, people have been shown to develop different mindsets about the effect of stress on performance (Crum, Salovey, & Achor, 2013). People with more positive beliefs about how stress affects performance are more likely to agree with statements such as, "Experiencing stress enhances my performance and productivity," whereas those with more negative beliefs are more likely to endorse statements such as, "Experiencing stress debilitates my performance and productivity." Note that these two beliefs may not represent different endpoints along the same continuum, but rather may be two distinct beliefs. That is, if people believe that stress does not debilitate their performance, it does not necessarily mean that they believe that stress enhances their performance. Hence, a wise intervention in which people are led to believe that stress does not interfere with performance may lead to healthier functioning by lowering the threat associated with the potential stressor; this viewpoint assigns centrality to the primary appraisal. Furthermore, a wise intervention in which people are led to believe that stress enhances performance may lead to healthier functioning by inducing them to believe that they have the resources needed to counteract threat-induced stress; this viewpoint assigns centrality to the secondary appraisal. In one study, the stress-is-enhancing mindset was associated with reduced cortisol reactivity under high stress conditions, and greater desire for feedback (Crum et al., 2013).

Need for self-integrity

Cohen and Sherman (2014) provided evidence that people respond less defensively to self-threatening information when they have been given an opportunity to engage in self-affirmation. Defensive responses can take the form of denigrating others, denying or distorting information in self-protective ways, or drinking or partaking in other forms of chemically-induced escapes. One explanation of these findings centers on primary appraisal. If defensiveness emanates from people experiencing self-threat, then self-affirmation may reduce defensiveness by lowering people's experience of self-threat.

Cohen and Sherman's (2014) review of health studies provides evidence that self-affirmation also may elicit positive effects by influencing people's secondary appraisals. For example, in one study women with early stage breast cancer physically benefitted from expressive writing (Creswell et al., 2007; Pennebaker & Chung, 2011) in which they "reflected on their thoughts and feelings about their experience . . . Content analyses suggested that the active ingredient in women's essays was the act of

affirming the self. Patients who affirmed important values, such as relationships or religion, or who reflected on valued personal qualities benefitted most" (Cohen & Sherman, 2014, p. 350). Cohen and Sherman further implied that self-affirmation exerted positive influence by altering participants' secondary appraisals: "People benefitted from the expressive writing not so much because it led them to reappraise the cancer (which would have been more akin to altering their primary appraisal) but because it helped them to reappraise themselves" (i.e., their sense of having the psychological resources or global self-integrity to counteract the threat posed by the cancer; p. 350, our parentheses added). Moreover, primary and secondary appraisals can be influenced by integrated approaches. In the context of college drinking, in which there are motivational and informational barriers to healthy change, a study combined a self-affirmation manipulation to address self-integrity concerns (e.g., being left out, a social sanction) with an implementation intentions manipulation to increase basic skills to resist alcohol. This combined intervention led to increased abstinence from alcohol over a two-week period (Ehret & Sherman, 2018).

Need to belong

Wise interventions also may exert positive influence by helping people reduce or manage threats to their sense of belonging. Some findings appear to reflect the intervention's effect on the primary appraisal, i.e., it led to a reduced sense of threat. In laboratory studies in which participants were exposed to stressors such as receiving mild electric shock, those with more social support experienced less threat (Brown, Sheffield, Leary, & Robinson, 2003). For example, one study showed that viewing a picture of a loved one while being exposed to the stressor caused people to feel less pain relative to when they viewed a picture of a stranger (Master et al., 2009).

The results of other studies were consistent with the notion that the benefit of the wise intervention was at least partly due to its influence on the secondary appraisal, i.e., an enhanced sense of being able to counteract the threat. For instance, an understandably threatening experience for college students is receiving a letter informing them of being placed on academic probation (Brady et al., 2018b). As one student put it, "For some time after getting the letter, I felt that I didn't belong. I had already felt that way coming in, but the letter seemed to confirm that . . . I wanted to drop out." Brady et al. examined whether the content of the letter could influence students' likelihood of returning to good standing. In particular, if the letter conveyed the message that there was reason to be hopeful that they could return to good standing, they were more likely to take action to deal with the threat, such as attending tutoring sessions or reaching out to academic advisors. Taking such constructive steps, in turn, did make them significantly more likely to return to good standing.

First-generation college students, defined as those in which neither parent earned a four-year college degree, are less likely to graduate on time and have worse academic outcomes than continuing generation college students (Bowen, Kurzweil, & Tobin, 2005). Interventions that create norms that minimize the importance of stereotypes in university settings can lead to improved academic performance and persistence (Binning et al., 2020). One intervention created organizationally-sanctioned panels from the university that presented information to college students (Stephens, Hamedani, & Destin, 2014). A particularly salient threat to first-generation students' transition to college is whether they belong. Moreover, feeling worried about whether they belong can feed on itself; first generation students may "worry about being worried." Stephens et al. theorized that one

way to keep the initial worry to a reasonable level is by normalizing it. Accordingly, participants in the wise intervention condition heard from older students at their school (upperclassmen) who were first generation themselves about how their unique challenges could be assets at the university. For example, one senior advised participants, "Because my parents didn't go to college, they weren't always able to provide me the advice I needed. So, it was sometimes hard to figure out which classes to take and what I wanted to do in the future. But there are other people who can provide that advice, and I learned that I needed to rely on my adviser more than other students (did)" (p. 945). This study arguably influenced participants' primary and secondary appraisals. What was also emphasized was that the differences that students may have because of their familial inexperience with college can be not only a challenge as previously suggested but also a source of strength. For example, first-generation college students have a lifetime of experience of navigating new situations which may better position them to teach themselves, which is a helpful skill in college. A more organizationally-based example of how employees transfer what they have learned to new situations was provided in a recent study in which new managers created cultures similar to the one they experienced in their prior group in which they were followers (Kim & Toh, 2019).

Such advice not only may have prevented participants' initial worry about whether they belonged from feeding on itself (thereby affecting their primary appraisal), but also by providing them with a suggestion about what they could do to make the transition easier (thereby affecting their secondary appraisal). Indeed, Stephens et al. (2014) found that relative to the control condition, the grades of first-generation students in the intervention condition were significantly higher for their entire freshman year. Moreover, the intervention increased the likelihood that students reported taking advantage of campus resources (e.g., e-mailing or meeting with professors, or seeking extra help). Indeed, the positive effect of the intervention on first-generation students' grades was mediated by their taking advantage of college resources.

Wise interventions in the workplace

Research on wise interventions may be found at the following website: wiseinterventions.org. It is an extremely valuable resource in that it offers a database of studies that have examined the influence of a wide array of wise interventions on people's beliefs and behaviors. It also organizes the various studies along several dimensions, including the area in which the study was conducted. Of the more than three hundred studies included in the database as of this writing, approximately two-thirds have been conducted in educational or health contexts. In contrast, many fewer have been conducted in the workplace, suggesting there may be considerable opportunity to examine wise interventions in work organizations. We describe next some examples of studies done to date in work settings.

Need to understand

Interventions based on the need to understand capitalize on the fluidity of people's perceptions of their environments and themselves. The same environment may be open to multiple interpretations and beliefs that employees have about themselves. One input into how employees perceive their work environment consists of the messages they receive from their supervisors about the appropriate ways to think and behave. This can begin during the hiring process (or even before, Milkman, Akinola, & Chugh, 2015), in which bias in hiring decisions can set the tone for who is hired and the subsequent experience of new

hires in the organization. Field experiments, for example, have shown that identical resumes are processed differently for white vs. black or Latino applicants. Black applicants in one field study were half as likely to receive a job offer or call-back as white applicants who were equally qualified (Pager, Bonikowski, & Western, 2009).

Bias in hiring is abetted by recruiters' tendencies to construct criteria as to what makes a candidate successful in ways that reinforce stereotypes: experimental evidence indicates that whether it is more important for a candidate for a stereotypically male job (police chief) to be well-educated or street-wise is influenced by whether the candidate is male or female—whichever characteristic the male candidate possessed was seen as more integral to the position (Uhlmann & Cohen, 2005, Study 1). This bias can be attenuated by having organizations explicitly provide objective criteria to the hiring managers before they are presented with the candidates' resume or experience for consideration (Uhlmann & Cohen, 2005, Study 3).

Messages from managers are impactful not only during the hiring process, but also throughout employees' tenure. Managerial trickle-down effects have been found in several literatures in organizational behavior (e.g., Wo, Ambrose, & Schminke, 2015), which show that managers at lower levels tend to treat their direct reports similarly to how they have been treated by their own bosses. A relatively brief intervention designed to influence the discourse between supervisors and their direct reports to emphasize safety led to positive changes in direct reports' evaluations of the safety climate and their safety behavior for 6–8 weeks after the intervention had been introduced (Zohar & Polachek, 2014).

Other interventions have provided ways for service providers (hairdressers, in one study) to think differently about difficult clients, for example, by seeing clients' offensive behavior as saying more about the clients' own problems than about themselves, or by seeing the clients' difficult behavior as a challenge and opportunity for growth. Relative to those in a control condition, those induced to reappraise how they thought about difficult clients elicited greater customer satisfaction as reflected in the size of cash tips they received over a ten-day period (Hülsheger, Lang, Schewe, & Zijlstra, 2015). Relatedly, Song et al. (2018) found that interventions designed to make customer service employees more other-oriented (e.g., an induction of perspective taking) reduced the adverse effect of customer mistreatment on their own emotional well-being during and after the workday.

In a particularly impressive effort, Campos and Gassier (2017) evaluated the effects of different types of training programs on the performance of small businesses in the West African country of Togo. A total of 1500 business owners were randomly assigned to three different conditions: (1) a traditional business training condition, which emphasized various functional areas such as accounting, financial management, and marketing, (2) a no training control condition, and (3) a wise intervention condition entitled personal initiative training, which focused on "teaching a mindset of self-starting behavior, innovation, identifying and exploiting new opportunities, goal-setting, planning and feedback cycles, and overcoming obstacles" (p. 1288). The wise intervention focused on the mindset (and associated behaviors) that accompanies being a successful entrepreneur, which was designed to foster alternative ways of thinking relative to their pre-existing mindsets (e.g., "successful entrepreneurs are born not made"). Tracking business outcomes for more than two years after participants had been assigned to their respective conditions, the authors found that the enterprises of those who had undergone the personal initiative training were significantly more profitable than those in the other two conditions, which did not differ from one another.

Need for self-integrity

Other researchers have investigated wise interventions designed to respond to people's need for self-integrity. For instance, showing student teachers that their values were inconsistent with those of good teachers engendered change in values in the direction of those held by good teachers (Greenstein, 1976). Relative to student teachers in a control condition who were not confronted with this self-dissatisfying information, they not only changed their values to be more in accordance with those of good teachers but also performed their jobs better over a three-month period.

More recently, Lanaj and her colleagues (2019, 2020) examined the influence of several interventions related to leaders' need for self-integrity on their work attitudes and behaviors. Previously, we cited research showing that life insurance salespeople performed better if they made optimistic (self-protective) rather than pessimistic (self-disparaging) attributions for their failure experiences (Seligman & Schulman, 1986). These findings were not based on an intervention. Rather, salespeople indicated their dispositional tendencies to make optimistic versus pessimistic attributions for negative experiences, which in turn predicted how well they performed. However, it stands to reason that a wise intervention could take the form of training people who face difficult circumstances to make non-pejorative attributions as has been done, for example, with new parents at risk for child abuse (Bugental et al., 2002). In another study, Yivisaker and Feeney (2002) found that brain-impaired children whose caretakers had undergone training in making optimistic attributions functioned better than their counterparts whose caretakers had not received such training.

Interventions that focus on reactions other than the causal attributions people make for their difficulties, such as to be more self-accepting, also could engender more positive work attitudes and behaviors. The concept of "leader role self-compassion," which is based on the premise that being a leader is hard work, replete with task and interpersonal challenges has been developed in recent work (Lanaj, Jennings, Ashford, & Krishnan, 2020). Certain psychological reactions to the taxing work of being a leader may adversely affect their subsequent attitudes and behaviors. For example, not only might managers make pessimistic causal attributions, but also any perceptions of inadequacy they experience may call to mind other instances in which they have not been successful, a tendency known as "overgeneralization following failure" (Carver & Ganellen, 1983). Relatedly, leaders with a performance rather than learning orientation (Dweck & Leggett, 1988) may view activities in which they fell short as signs of failure, rather than as something to learn from or as an opportunity for enhancement. Any of these reactions could foster reductions in leaders' productivity and morale.

In contrast, leader role self-compassion represents a "kinder and gentler" way for leaders to respond, that may enable them to be more resilient and satisfied in ways that translate positively to their employees. It encourages leaders to acknowledge the fact that their work is quite demanding, that often they may not do their myriad activities as well as they would like, and given these realities they should be accepting of rather than hard on themselves. In a "leader self-compassion" intervention, participants (all of whom were in leadership positions) were asked to "recall a time in which you were kind and compassionate to yourself when experiencing hardships at work because of your role as a leader, i.e., what happened, how you felt, etc." Relative to a control condition, those in the leader self-compassion condition experienced a stronger sense of leader identity, which led to perform the task- and relationship-oriented aspects of their work more effectively (Lanaj et al., 2020). These outcomes were

beneficial interpersonally (their subordinates rated them as more competent and civil) and intrapersonally (they felt more satisfied with themselves as leaders).

Relatedly, the leadership role requires inhabitants to exert considerable energy which could leave them drained of psychological resources (Friese, Loschelder, Gieseler, Frankenbach, & Inzlicht, 2019; Inzlicht & Schmeichel, 2012; Muraven & Baumeister, 2000) and, as a result, less likely to perform well. Lanaj, Foulk, and Erez (2019) evaluated whether this tendency could be counteracted by another type of intervention related to leaders' need for self-integrity: positive self-reflection. Those in the experimental condition were asked at the beginning of certain workdays to reflect on things about themselves (e.g., traits, accomplishments) that make them good leaders. Whereas the aforementioned work on optimistic attributional styles examined how people respond to failure or negative feedback experiences (Seligman & Schulman, 1986), positive self-reflection encourages people to make a different type of optimistic attribution, in this case, for their success (as a leader). That is, the intervention essentially asks people to consider ways in which aspects of themselves caused them to perform well as leaders. Relative to the control condition, leaders who completed the positive self-reflection exercise were more engaged with their work, which in turn led them to undertake their leadership activities more constructively (Lanaj et al., 2019). This is consistent with a wider body of research showing how self-affirming activities can counteract resource-depleting events (Schmeichel & Vohs, 2009; see Sherman & Cohen, 2020, for a review).

Need to belong

A series of studies by Grant and his colleagues (Grant, 2008; Grant et al., 2007; Grant & Gino, 2010) examined a wise intervention in which benefits were shown to be based on people's need to belong. The intervention consisted of providing people with different ways of receiving feedback that they or people in their roles had positively affected the lives of others. In one study (Grant et al., 2007) participants (university fundraisers) were told by a beneficiary (students who received academic aid made possible by university fundraising efforts) of how their lives had been positively and meaningfully altered by receiving a scholarship to attend college. In other instances (Grant, 2008), participants (university fundraisers and lifeguards) read stories of how others previously in their roles positively and meaningfully altered the lives of others. Participants on the receiving end of these positive expressions of gratitude from beneficiaries were much more motivated to perform their jobs well, relative to those in a control group.

Follow-up research by Grant and Gino (2010) was designed to evaluate two mechanisms for these findings. One possibility is that receiving positive expressions of gratitude for making a meaningful difference could satisfy people's need for self-integrity. For instance, it could bolster their sense of competence or personal agency. Another possibility (not mutually exclusive) is that receiving expressions of gratitude may satisfy people's need to belong. That is, expressions of appreciation may symbolize to people that they are valued by others, which may foster a greater sense of social connection. In four studies, Grant and Gino found that it was the satisfaction of people's need to belong rather than their need for self-integrity that accounted for the motivating effect of receiving expressions of gratitude. For example, the receipt of gratitude for helping another person made people more likely to engage in pro-social behavior. Moreover, this was because receiving gratitude for engaging in the helpful act made people more likely to say that they felt valued by the other person which led to subsequent pro-social behavior. In contrast, measures of

personal agency or self-efficacy (e.g., the extent to which they felt competent or able to help) did not mediate the relationship between whether they had received an expression of gratitude and subsequent pro-social behavior.

Using wise interventions appropriately in the workplace

Wise interventions have generated a great deal of interest because they can bring about lasting positive changes in important beliefs and behaviors, often without requiring much in the way of tangible resources such as time or money. These very appealing features, however, run the risk of wise interventions being overused or used inappropriately. For example, we recently presented to a women's professional STEM group the findings that self-affirmation can eliminate the tendency for women's performance to be adversely affected by stereotype threat (Kim et al., 2020; Kinias & Sim, 2016). Afterwards, the group asked us to return to administer the self-affirmation exercise to them. While flattered and excited by their request, we thought further about it. Just because wise interventions can produce impressive effects does not mean that they will (Binning & Browman, 2020; Mobasseri et al., 2020; Yeager & Walton, 2011). Using wise interventions appropriately is predicated on knowing the processes through which they come about and the workplace conditions that allow these processes to be instantiated. Hence, we declined until we could learn more about their organization as they relate to the processes and workplace conditions described below.

Cohen and Sherman (2014) put our thinking about these matters well: "Like any formative experience, a successful intervention is not an isolated event but rather a turning point in a *process* . . . . When well-timed and well-*situated*, it touches off a series of reciprocally reinforcing interactions between the self-system and the social system" (p. 340, our emphases added). The italicized words in the preceding quote illustrate two complementary ways to consider how and when the effects of wise interventions are likely to endure: a process approach (which focuses on the how) and a situational approach (which focuses on the when). We will illustrate both approaches, first in the context of an intervention designed to address the need for self-integrity, then in the context of one designed to address the need to belong, and finally in the context of interventions designed to address the need to understand.

Need for self-integrity/a process approach

Cohen and Sherman (2014) identified three types of "reinforcing interactions" or processes, which we will illustrate with the following example: stereotype threat lowers the performance of women relative to men in STEM areas (Spencer, Steele, & Quinn, 1999), an effect which can be eliminated by self-affirmation (Kim et al., 2020). First, there may be *recursive processes,* reinforcing interactions in which the consequence or output of the intervention becomes an input into another event, that can reinforce the positive effect of the intervention over time. Put more simply, self-affirmation enabled women to perform better, which in turn was self-affirming which led to better performance, and so on: a veritable virtuous cycle (this is illustrated by the reciprocal arrows between self-system and outcomes in Fig. 1).

Second, *interactive processes* can occur such that the output of a process can interact with other forces in the environment (Cohen & Sherman, 2014). For example, the improvement in women's performance elicited by self-affirmation could give rise to other events that may have positive effects. Thus, in an academic setting, professors in STEM classes may provide women who performed well with positive feedback that could further energize them (as represented by the reciprocal arrows in Fig. 1 from outcomes to

organizational system). In the workplace, those who performed well may be identified as "high potentials" which leads to the kind of experiences that make them more likely to be successful, a veritable self-fulfilling prophecy (Rosenthal, 2003). For example, high potentials may receive extra developmental opportunities and mentoring that increase their chances for success, relative to their counterparts who were not identified as high potentials (Goyer et al., 2017). Changes in the self-system can lead to positive outcomes which could lead to changes in the organizational system that further facilitate positive outcomes in a cycle of adaptive potential (Cohen & Sherman, 2014).

The third process identified by Cohen and Sherman (2014) is *subjective construal*. Even without additional external events such as positive feedback or the provision of enabling experiences, wise interventions may induce *internal* changes, that is, in people's perceptions of themselves or their environments. For example, self-affirmation induces people "to narrate adversity as an isolated event rather than as an indictment of their adequacy" (p. 342). Whereas the recursive process identified above suggested that self-affirmation and enhanced performance can form a virtuous cycle, members of stereotyped-threatened groups are likely to have experiences in which things do not go as planned, even if they experienced self-affirmation. For example, self-affirmed women operating under conditions of gender-based stereotype threat (such as working in a STEM area) may not perform well all the time. The key is for them to keep their poor performance in check psychologically, such as by not overgeneralizing it (Carver & Ganellen, 1983), by not making stable or global attributions for it (Seligman & Schulman, 1986), or by not succumbing to a sense of self-doubt (Kinias & Sim, 2016). By affirming their global self-integrity, people can minimize the experience of self-threat that may be elicited by performing poorly.

Consistent with this reasoning, Cohen et al. (2009) found that among middle school children who did not engage in self-affirmation, the racial gap in performance was relatively small at the beginning of the school year and grew as the year progressed. In contrast, African-American children who self-affirmed altered this trajectory, such that they showed less of a decline in performance over the course of the year. One interpretation of these findings is that the affirmation of global self-integrity provided students in the stereotyped-threatened group with a way to reduce or manage the psychological adversity they likely experienced early in the school year when they performed poorly. Moreover, having figured out ways to minimize the implications of the adversity for their global self-integrity, stereotyped-threatened groups bolstered by the self-affirmation may come to *see themselves* differently, i.e., as the kind of person who can deal with adversity, which is likely to live on in positive ways long after they experienced the initial self-affirmation. In one study, for example, people who completed the self-affirmation manipulation were, when faced with later stressors, more able to spontaneously self-affirm (Brady et al., 2016), suggesting that the successful implementation of the initial self-affirmation fostered increased resources to cope effectively. In sum, wise interventions transpiring in work environments that allow for the "reinforcing interactions" set forth by Cohen and Sherman (2014) are likely to yield beneficial long-term effects.

Need for self-integrity/a situational approach

Next, we consider the nature of work environments in which the reinforcing interactions are likely to occur. Wise interventions are likely to produce long-term effects in contexts that allow their new meaning to take root. Our botanic metaphor echoes the recent assertion of Walton & Yeager, 2020, who posited that "effective interventions require planting *a high-quality seed* (an adaptive

belief system) in *fertile soil* where that seed can grow (a context that affords the proffered belief system)." In this analogy, the wise intervention represents the seed and the organizational context reflects the soil. When wise interventions take place in organizational contexts that amplify or add to them (or at the very least do not detract from them), they are more likely to produce lasting change.

We illustrate this point with reference to the study by Cable et al. (2013), which showed that a brief intervention in how new employees were onboarded had a significant effect on their work behaviors and attitudes for a full six months. In one condition, participants were onboarded in a way that seemed likely to satisfy their need for self-integrity: they were asked to identify their "signature strengths" and how they might envision enacting them on the job. Relative to those in the control condition, participants performed better and were more satisfied with their jobs.

However, employees' needs for self-integrity may be satisfied to varying degrees as a function of other workplace events subsequent to early socialization. Indeed, one way to fulfill the promise of onboarding employees in a self-affirming way is for organizations to allow for job crafting (Wrzesniewski & Dutton, 2001), which refers to employee-initiated changes in how they do their work. There are two reasons why job crafting may be self-affirming for employees. First, the *content* of job crafting initiated by employees is likely to be personally relevant. As Wrzesniewski, Berg, Grant, Kurkoski, and Welle (2020) suggested, "By customizing their jobs to suit their unique needs, motives, and values, employees may experience a lasting positive reaction to the improved nature of the work." In other words, job crafting can affirm employees' sense of identity. Second, because job crafting is employee-initiated, the *process* of engaging in it may affirm their sense of control. We speculate that the positive effect of onboarding employees in the self-affirming way examined by Cable et al. (2013) would be less pronounced if organizations enacting it did not subsequently allow for job crafting. Indeed, in a worst case scenario, employees may react particularly badly if their onboarding led them to expect that they could enact their signature strengths on the job but their actual experiences did not allow them to do so (e.g., they were given little opportunity to engage in job crafting).

More generally, wise interventions based on self-affirmation are more likely to produce enduring change when they are part of a more general organizational pattern to satisfy employees' needs for self-integrity. Take corporate-sponsored volunteer programs as a case in point. Brockner, Senior, and Welch (2014) found that corporate-sponsored volunteerism enhanced employees' organizational commitment, and that self-affirmation played a mediating role in two ways. First, the more that employees engaged in corporate-sponsored volunteerism, the more likely they were to experience self-affirmation, as measured by such items as, "I feel like I am a competent person at work," and "I feel that I have a clear sense of who I am at work." Second, the more that employees believed that their employers were committed to their corporate-sponsored volunteer programs, the more likely were employees to experience self-affirmation. In sum, we surmise that the more that satisfying employees' need for self-integrity is part of the corporate culture, the more likely is it for wise interventions based on self-affirmation to have enduring positive effects on employees' beliefs and behaviors.

Need to belong/a process approach

Next, we consider how the same processes that Cohen and Sherman (2014) identified may explain the positive effects of belongingness interventions examined by Walton and Cohen (2007, 2011). The intervention consisted of informing college students (half Black, half White) that transitioning to college is difficult for everyone, that it is normal to question whether one belongs and that these concerns typically lessen with time. Thus, as the authors suggested, the intervention was designed to show how concerns about belonging occur for students across racial groups and assure students that whatever concerns they experienced were likely to be relatively short-lived. The processes identified by Cohen and Sherman (2014) can help explain the longer-term effects observed in the Walton and Cohen studies.

First, the belongingness intervention may engender a virtuous cycle via a recursive process. Walton and Cohen (2007) found that relative to the control condition, minority (but not white) students acted as if they belonged more. For instance, in the week after the intervention they spent more time studying and they were more likely to reach out to their professors via e-mail. Behaving as if they belonged may have reinforced their sense of belonging, which may have led them to more deeply engage academically, which may have reinforced their sense of belonging, and so on. Second, it is plausible that external events associated with their behavior may have heightened how much they felt they belonged. For example, as one student put it, "I walked with my professor after class to my next class and had a great discussion" (p. 90).

Prior research has shown that when minority students experience psychological adversity they are much more prone than white students to believe that they do not belong (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002). Importantly, the belongingness intervention greatly attenuated the inverse relationship between how much minority students experienced adversity on a given day and how much they felt like they belonged (Walton & Cohen, 2007). As we saw with self-affirmation, the belongingness intervention does not ensure positive experiences, but rather, induces a mindset that enables people to limit the effects of negative experiences on how well they function. The negative experiences seem more localized and less connected to their overall academic motivation, and thus people experience identity threat within a less pernicious narrative (Sherman et al., 2013).

Walton and Cohen (2011) found long-lasting effects of their belongingness intervention such that minority students who received it as freshmen performed better for their entire academic careers, and were more satisfied with their careers and their lives three to five years after graduating. The three-year gains in their grades were due to changes in subjective construal. For instance, minority students who experienced the intervention may have: (1) cultivated more supportive academic relationships, and (2) gained confidence in their ability to do so, which they translated into meaningful behavioral changes such as forming mentor relationships.

It is possible for similar processes to play out when organizations make genuine efforts to heighten employees' sense of belonging, such as through diversity, equity, and inclusion (DEI) initiatives. First, employees may respond to authentic organizational overtures toward diversity, equity, and inclusion in ways that satisfy their need to belong. For example, they may become more involved in company-wide activities, such as agreeing to serve on or even lead a task force in which participation is voluntary. Becoming involved may, in turn, further satisfy people's need to belong (the virtuous cycle). Second, coming to be known as employees who want to be involved in company-wide activities may lead to additional invitations for inclusion (the self-fulfilling prophecy). Third, as these experiences accrue over time, employees may change their beliefs about themselves and/or the organization that may lead to ongoing satisfaction of their need to belong (change in subjective construal). For example, they may have learned a more general principle about the kinds of actions they can take (e.g., to become more actively involved). Or, they may

come to see the organization as truly caring about satisfying its members' need to belong. Future research in the organizational arena may borrow from the methods used to evaluate these three mediating processes, such as daily diaries (i.e., repeated assessments over time) that capture perceptions of threat, belonging, and efficacy in studies conducted in educational settings and thus enable researchers to capture the narratives that participants form in response to interventions (e.g., Sherman et al., 2013; Walton & Cohen, 2011).

Need to belong/a situational approach

Previously, we suggested that wise interventions designed to satisfy employees' need for self-integrity will have greater efficacy when they are reinforced by other organizational events and policies (e.g., Hall, Schmader, Aday, Inness, & Croft, 2018). The same can be said for DEI initiatives designed to address people's need to belong. Unfortunately, organizations sometimes pay lip service rather than truly commit to their DEI initiatives (e.g., Kalev, Dobbin, & Kelly, 2006). When managers' expressions of inclusiveness are ambivalent or even worse inauthentic, the very act of engaging in them may make them *less* likely to continue behaving inclusively (for discussion, see Brannon, Carter, Murdock-Perriera, & Higginbotham, 2018). Consider the way in which organizations define diversity: originally, it referred to legally protected categories, such as minorities and women. For example, as one law firm put it, "Our philosophy is simple: include women and minority lawyers at all levels of firm leadership and promote diversity in the legal profession. Our talented mix includes minority and women lawyers serving as heads of offices, members of the firm's Board of Directors and management team, and chairs of some of the firm's most important practice groups" (Akinola et al., 2020).

More recently, organizations have defined diversity more broadly to include dimensions that are not legally protected such as personality traits and worldviews (Akinola et al., 2020). For example, the diversity statement of another law firm is: "Diversity is not simply a philosophy; it is about who we are and how we do business, both with our clients and with each other. We strongly believe that diversity in perspectives, backgrounds and experiences enhances the quality of our work and augments our lives, and we are resolute in our mission to continue to weave difference into the fabric of the firm." Whereas it may seem that organizations with broader definitions of diversity are more committed to satisfying their employees' need to belong, Akinola et al. found that organizations with broader definitions of diversity was correlated with them having *fewer* women and minority employees.

In related research, Kaiser et al. (2013) evaluated the effect of organizational diversity structures on the procedural fairness judgments of white participants. Diversity structures refer to formal organizational arrangements to promote diversity, such as policies, training programs, and awards. The results showed that relative to control conditions in which diversity structures were not present, diversity structures heightened participants' procedural fairness judgments even when it was clear that underrepresented groups (minorities and women) were being unfairly disadvantaged.

Why might an act of inclusiveness trigger subsequent activity that has the opposite effect? One explanation is moral licensing (e.g., Merritt, Effron, & Monin, 2010), which posits that engaging in moral behavior (e.g., including previously marginalized groups) may cause actors to see themselves as having established themselves as moral, which can paradoxically have the effect of making them behave in less moral or in more self-interested ways (Brockner & Wiesenfeld, 2016; Lin, Ma, & Johnson, 2016). In any event, it may be particularly challenging for DEI initiatives to lead to enduring satisfaction of employees' need to belong. For one

thing, organizations need to combine the initiative with other conditions and decisions that work in the same direction. Speculating about the failure of their workplace social-belongingness intervention, Mobasseri et al., 2020 suggested that it may have been because prior to the intervention participants experienced "broader organizational cultural content" that conflicted with the intervention, thereby reducing its efficacy. For another, an expression of inclusion may give rise to a boomerang effect in which subsequent actions undercut the very psychological need for inclusion that the original expression was allegedly designed to satisfy.

Need to understand

Most studies in organizational behavior have taken a top-down and static approach, examining how managers affect the work attitudes and behaviors of their direct reports. Typically left unexamined is how the reactions of direct reports circle back to influence their managers, and, moreover, how these bi-directional forms of influence play out over time. For example, decades of research have examined how employees are affected by various forms of fairness (outcome and process) with which they are treated by their bosses (e.g., Adams, 1965; Colquitt et al., 2005; Lind & Tyler, 1988). Employees typically respond negatively when they perceive that their managers have treated them unfairly. For instance, they are less trusting of authorities (e.g., Brockner, Siegel, Daly, Tyler, & Martin, 1997) and their performance on in-role and extra-role responsibilities is lower (e.g., Cohen-Charash & Spector, 2001). When employees believe that managers' inconsistency (an element of low procedural fairness) represents hypocrisy, they are more likely to want to speak out or condemn those actions (Effron, O'Connor, Leroy, & Lucas, 2018). Managers, for their part, may react negatively when their subordinates respond in these ways. For example, they may be more inclined to micro-manage or otherwise continue to treat subordinates with low levels of fairness (Zapata, Olsen, & Martins, 2013; Zhao, Chen, & Brockner, 2015).

Wise interventions intended to break these vicious cycles can take multiple forms. One would be for managers to behave in ways that were clearly fair. Whereas perceivers often assimilate how others behave to be consistent with their prior expectations, this is less likely to occur when others' behaviors definitely contrast with perceivers' expectations. Perceivers' stereotypes provide one basis of their expectations. For example, whereas the group "military veterans" generally evoke positive stereotypes ("heroes"), a more nuanced analysis has shown that perceivers have good and bad associations in their views of military veterans. Specifically, military veterans are expected to perform well on tasks that require personal agency but less well on tasks that require emotional sensitivity (Shepherd, Kay, & Gray, 2019).

In one study perceivers made judgments about how well an employee in the position of event planner was suited to perform various types of tasks. Some tasks required personal agency whereas other tasks required emotional sensitivity (e.g., "dealing with a bride who is crying because a family member cannot make it to the wedding," Shepherd et al., 2019, p. 84). In a 2 × 2 design the event planner was described as having or not having veteran status, and as having or not having been a member of an animal humane society, which entailed performing activities that required emotional attunement. An interaction effect emerged on judgments of the event planner's capability of performing tasks requiring emotional sensitivity. When the event planner was not a member of an animal humane society, stereotyped-based judgements prevailed: veterans were judged to be less qualified than were non-veterans. However, this tendency was eliminated when the event planner was described as having worked in an animal humane society.

Just as stereotype-disconfirming information led to more positive judgments of the event planner's capabilities, managers who are not expected to behave fairly may be able to mend their image by behaving in ways that clearly contrast with subordinates' negative expectations. A series of studies showed that this may be achieved if previously untrusted managers doled out outcomes that were favorable/fair to subordinates *and* did so in ways that were procedurally fair (Bianchi et al., 2015). Either form of expectancy-disconfirming information alone (outcome or procedure) was not sufficient. Rather, it was only when favorable/fair outcomes were accompanied by high procedural fairness that subordinates responded positively, i.e., with higher levels of organizational commitment.

A second form of wise intervention consists of subordinates changing the lens through which they view their managers' unfair behavior. Theory and research on relational models of fairness have shown that people typically interpret unfair procedures as symbolizing that they are not respected, valued, and included (Tyler & Blader, 2003; Tyler & Lind, 1992). However, recipients of unfair procedures can take steps to reduce negative appraisals of their standing as organization members. A recent series of studies drew on the emotional self-regulation strategy of reappraisal (Gross, 1998a,b) to show that those induced to think about unfair treatment in less negative ways performed better (Van Dijke, Van Quaquebeke, & Brockner, 2020) Van Dijke, Van Quaquebeke, & Brockner, 2020 2020 For example, it may be possible for employees to reappraise their managers' unfair treatment of them as less self-threatening, e.g., "Perhaps my boss is going through a rough patch in her life," or, "My boss is behaving this way because he doesn't have the interpersonal skills needed to exhibit a fair process."

Importantly, reappraisal need not influence perceptions of unfairness themselves, but rather the way in which such perceptions are construed. The positive effect on performance of reappraising low procedural fairness was mediated by participants' sense of standing as organization members. Specifically, reappraisal attenuated the tendency for low procedural fairness to lead to a reduced sense of standing, which in turn led employees to perform better (Van Dijke et al., 2020). Thus, as with previously described wise interventions that addressed people's need for self-integrity (Cohen & Sherman, 2014) and need to belong (Walton & Cohen, 2011), reappraisal enabled people to keep their experiences of psychological adversity from undermining their performance.

Unlike in our discussions of the need for self-integrity and need to belong, none of the wise interventions targeting people's need to understand mentioned above examined longer-term effects. Similar to our previous discussions, however, we expect the effects to be more enduring: (1) to the extent that they engendered the "reinforcing interactions" or processes described by Cohen and Sherman (2014), and (2) when other situational factors in the workplace similarly affected the psychological dimension influenced by the wise intervention (i.e., there are consistent structural interventions as illustrated in Fig. 1). Indeed, it may be that managers need to engage in reappraisal of their actions when they lead to adverse situations for employees. Managers caught in a vicious cycle of negativity with their direct reports may benefit by behaving in ways that are clearly fair and by setting up verifiable mechanisms to enforce such fairness. Moreover, researchers and other outside observers can serve the role of shining a light on such unfairness. For example, orchestras that moved to blind auditions hired more women (Goldin & Rouse, 2000) and the existence of such a process may also change the behavior of orchestra members and managers to act in a more egalitarian manner. According to Cohen and Sherman (2014), such practices are more likely to produce lasting change if: (1) there is a recursive process between the initial and subsequent expressions of managerial fairness, (2) external responses to managers' initial fairness elicit further

expressions of managerial fairness, and (3) certain types of changes in managers' subjective construal are instantiated.

Recursive processes. Whether behaving fairly makes managers more versus less likely to continue behaving fairly may depend upon the type of fairness they express. One study showed that managers' enactment of high procedural fairness made them more ego depleted the next day whereas their enactment of high interpersonal fairness reduced ego depletion (Johnson, Lanaj, & Barnes, 2014). Ego depletion experienced the next day, in turn, negatively affected managers' behavior. The measure of managers' behavior was not fairness per se, but rather organizational citizenship behavior (OCB). Nevertheless, sample items from the OCB measure used in this study seemed to overlap with interpersonal fairness ("lent a compassionate ear when someone had a personal or work problem," and "gave a co-worker encouragement or appreciation"). Hence, managers' enactment of interpersonal fairness, by reducing ego depletion, may have made the recursive process more likely to occur whereas their enactment of procedural fairness, by heightening ego depletion, may have hindered recursive processes (Johnson et al., 2014).

Interactions with external responses. The results of the studies on disconfirming negative stereotypes about military veterans (Shepherd et al., 2019; see also Shepherd et al., 2020) and disconfirming prior beliefs about how much managers can be trusted (Bianchi et al., 2015) suggest that perceivers are open to updating their beliefs. Moreover, such updating may hold the key to whether wise interventions may transform vicious cycles into virtuous ones. For example, previously untrusting subordinates may start to behave in more engaged ways upon being treated fairly, as reflected in their greater motivation to perform their jobs well, or by being more willing to take on extra-role responsibilities. Such expressions of engagement, in turn, may invite more supportive actions on the part of their managers, including but not limited to their continued enactment of fairness.

That said, our hunch is that the transformation process from vicious to virtuous cycles is tenuous at best. Given the negative prior history associated with the vicious cycle, direct reports may be wary of the authenticity of managers' change in behavior. Any managerial action that calls to mind the "bad old days" may undermine the managers' apparent change of heart, and thereby interfere with subordinates responding in ways that provide further impetus to sustained change. As noted earlier, transitions may make interventions particularly impactful, and thus interventions that promote less biased hiring practices serve the dual purpose of communicating a more pro-diversity organizational message early among new hires and reinforcing it among existing employees, who may be attuned to such ongoing practices.

Subjective construal. It is plausible that managers who transformed their relationships with their direct reports from a vicious cycle to a virtuous one would have learned an important lesson: that the fairness with which they treat their direct reports influences whether they will experience combative versus harmonious working relationships. This could lead to an enduring change in how they deal with others in the workplace, including but not limited to their direct reports. That said, the path from improved working relationships to change in subjective construal is unlikely to be straightforward. Among other things, it would require managers to be willing and able to engage in a self-reflective learning process. This self-reflective learning process itself can be fostered when people experience affirming events, which have been shown to change people's relationship patterns from defensive to open (Jaremka, Bunyan, Collins, & Sherman, 2011; Stinson, Logel, Shepherd, & Zanna, 2011; see also Lowell, 2012).

Situational influences. Finally, subordinates' positive reactions to their managers' enactment of fairness depends upon on whether

other contextual factors support or undercut it. The top-down approach overlooks the possibility that the fairness shown by other actors besides authorities may be influential. A recent series of studies examined how employees' organizational commitment was affected by a decision that was initially unfavorable but overturned to be more favorable (Bendersky & Brockner, 2020). In the experimental condition the authorities treated employees with interpersonal fairness in which they offered an apology for their misstep whereas in the control condition no apology was offered. As might be expected, participants' organizational commitment was greater when they received an apology from the authorities. Cross-cutting the interpersonal fairness shown by authorities, the authors also varied the interpersonal fairness shown by a peer, in which the peer behaved respectfully or disrespectfully. The peer's interpersonal fairness also had a positive effect on participants' organizational commitment. Thus, high interpersonal fairness shown by the authorities that was accompanied by disrespect from the peer elicited significantly less organizational commitment than when the apologetic authority was not paired with low interpersonal fairness from the peer. These findings suggest that to foster positive work attitudes and behaviors in their direct reports managers have a dual fairness challenge: (1) to treat their direct reports fairly, and (2) to create conditions in which their direct reports treat *one another* fairly. Indeed, the findings of Bendersky and Brockner suggest that the failure of managers to do the latter may counteract the success they achieved by doing the former.

Concluding comments

Theory and research on wise interventions are flourishing, as reflected in a review paper (Walton & Wilson, 2018), a handbook (Walton & Crum, 2021) and a website devoted to this topic. In contrast, the study of wise interventions in organizations is relatively nascent. Accordingly, this chapter is a call to action in two respects. First, we hope that readers will be stimulated to examine how the wise intervention literature may offer fresh perspectives to the age-old question of how to improve employees' work attitudes and behaviors. Second, just as wise interventions need to be applied to work organizations, we should be mindful of potential opportunities to deepen our understanding of wise interventions (i.e., why, when, and how they operate) by virtue of examining them in organizational settings. We conclude by elaborating on the latter point.

A recent paper examined how prominent features of organizations may deepen our understanding of theory and research in social psychology (Brockner, Wiesenfeld, & Fridman, 2021). For example, a ubiquitous aspect of organizations is social hierarchy. Typically, those higher in rank (power, status) call the shots whereas those at lower levels carry out the work necessary for organizations to fulfill their missions. Many studies have shown that employees' support for decisions, decision-makers, and institutions is interactively influenced by the fairness or favorability of the outcomes they receive from authorities and the fairness of the processes used by authorities in planning or implementing decisions. Specifically, high process fairness reduces the typical tendency for employees to behave more supportively in response to higher levels of outcome favorability/fairness, relative to when process fairness is low (Brockner & Wiesenfeld, 1996).

Further research has shown, however, that the interactive relationship between outcome fairness/favorability and process fairness depends on people's hierarchical position. The pattern of findings described above holds when those making decisions are higher in rank than those on the receiving end, which is usually the case. However, when those making decisions are lower in rank the process/outcome interaction takes a different form (Chen, Brockner, & Greenberg, 2003). In several studies students from a higher versus lower status MBA program negotiated with one another, in which the primary dependent variable was how much they wanted to have future negotiations with the other side. Among those from the lower status school, high process fairness shown by the other side reduced the positive relationship between the favorability of participants' negotiation outcomes and their desire for future interaction with the other side, consistent with previous results (Brockner & Wiesenfeld, 1996). However, among those from the higher status school, high process fairness shown by the other side heightened the positive effect of outcome favorability on desire for future interaction. Thus, where people stand on the prominent organizational dimension of social hierarchy led to empirical and conceptual advances in how outcome and process combine interactively to influence employees' reactions to decisions.

In like fashion, we believe that further understanding of wise interventions may be achieved by research which considers key features of organizations or guiding principles of organizational psychology. For example, wise interventions are typically introduced by those in positions of authority. However, this may not always be the case, which raises the question of whether the same intervention might be more effective if it emanated from, say, peers (bottom-up) rather than authorities (top-down). One possibility is that employees may be more responsive to initiatives driven by their co-workers who they may see as benevolently trustworthy, and less responsive to those of their bosses who they may see as primarily having the organizations' interests at heart. Moreover, there are other ways to differentiate between sources of wise interventions besides their hierarchical standing, such as whether they reside inside or outside the organization. For example, expressions of gratitude from beneficiaries (outsiders) may elicit greater motivation than comparable expressions of gratitude from managers (insiders; Grant, 2011). Or, the same intervention coming from external consultants may be responded to very differently than if it were perceived to be an internal management initiative.

One of the fundamental truths of organizational life is that there is no one best way to organize. Rather, how well organizations and individuals perform is positively related to the degree of congruence or fit between various entities, such as strategy and structure (Chandler, 1962), formal and informal organizational arrangements (Nadler & Tushman, 1980), and people and their work environments (Edwards, 2008). The generally positive effects of congruence provide insight into the important matter of when wise interventions in organizational settings may be more versus less impactful. The greater the intervention's congruence with the entities mentioned above, the more likely it is to elicit positive effects. For example, Kim et al. (2020) showed that the tendency for women to perform better and thereby attenuate the gender gap in performance in MBA quantitative classes was particularly likely to occur when students engaged in self-affirmation that was congruent with how they construed themselves. Individually-focused self-affirmation especially reduced the gender gap among students with more independent forms of self-construal whereas collective self-affirmation reduced the gap more strongly among those with more interdependent forms of self-construal (see also Hoshino-Browne et al., 2005).

Such findings are not only theoretically noteworthy but also have applied importance. When implementing wise interventions, practitioners need to consider how congruent the interventions are with people's self-construals. The Kim et al. findings provide preliminary support for this notion in an educational context. Further research needs to examine the role of fit between how interventions are operationalized and people's self-construals in organizational settings.

Furthermore, the "seed and soil" metaphor (Walton & Yeager, 2020) suggests that wise interventions (seeds) are more likely to

endure when the change in meaning they instantiate transpire in environments (soil) that provide "psychological affordances." Whereas psychological affordances can take numerous forms (e.g., whether employees are given the skills or sense of self-efficacy needed to enact adaptive ways of responding engendered by the intervention), one is whether the intervention is supported by or congruent with other aspects of organizational life. For instance, a recent large-scale study reported in Walton and Yeager evaluated the influence of a belongingness intervention on retention rates among incoming students at 21 colleges and universities (). As might be expected, in the absence of the intervention, retention rates were greater in those institutions that provided students with more opportunities to belong. Moreover, the belongingness intervention was more effective in institutions that provided more such opportunities. To state the latter finding differently, the seed had more of a positive impact when it was planted in more receptive (read: congruent) soil. In short, we see future research on wise interventions in organizational settings as having great potential in two respects: to provide answers to questions of theoretical and practical importance in the workplace, and to offer insights into theory and research on wise interventions.

Finally, the dramatic events of 2020 suggest that wise interventions may be particularly timely, in two respects. Covid-19 has caused huge economic disruptions which have forced many individuals and organizations to "do more with less." Fortunately, the financial costs of wise interventions typically are not prohibitive. This is not to say that there is little cost to successfully implementing wise interventions. In fact, careful thought and considerable time needs to be devoted to creating conditions in which wise interventions can be developed, tested, and evaluated as to whether they lead to positive effects. Whereas the seeds of wise interventions need to be planted in fertile soil, the seeds themselves typically are well within financial reach.

Second, the professed commitment of people and organizations to combat anti-black racism is arguably at an all-time high in the wake of the murder of George Floyd and other minority group members. By addressing people's needs to understand, for self-integrity, and to belong, wise interventions pinpoint the very thought processes that so often disadvantage Blacks and other marginalized groups in our society. Indeed, some of the most compelling examples of beneficial effects of wise interventions have enhanced the performance or psychological adjustment of minority group members, regardless of whether the intervention was administered directly to individuals (e.g., Cohen et al., 2009; Walton & Cohen, 2011) or instantiated at the organizational level (e.g., Okonofua et al., 2016). More widespread application of thoughtful interventions may enable scholars and practitioners to play a significant role in leveling the playing field in the years ahead. Let the journey begin.

Conflict of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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