

AN INJURY-FREE WORKPLACE requires a culture in which all employees actively care for the safety of themselves and their coworkers. How can such an ideal work culture be achieved? Beyond the variety of environmental and management support systems, certain human dynamics are necessary. Among these crucial dynamics is emotional intelligence (otherwise known as emotional quotient or EQ), which is likely the most important psychological capability for effectively promoting and supporting OSH.

Figure 1 (p. 26) humorously illustrates the first identified empirical attribute of EQ that connects directly to injury prevention—impulse control. Safety typically requires extra time and inconvenience to prevent a personal injury that usually appears improbable. Most readers have probably heard a statement like, "Your success in life depends upon your ability to delay immediate pleasures for future long-term accomplishments." In fact, research has shown that EQ, or one's ability to keep working despite being tempted to engage in an activity with more immediate positive consequences, is predictive of career success (Goldman, 1995, 1998).

To study the connection between one's ability to delay immediate gratification and future success, Stanford University professor Walter Mischel administered a "marshmallow test" to 4-year-old children to assess their impulse control. While sitting alone on a chair behind a small desk, each child was handed a marshmallow and told they could eat it now or wait until a little later and receive two marshmallows. Some children ate the single marshmallow a few seconds after the researcher left the room, whereas other children waited the 15 to 20 minutes until the researcher returned with a second marshmallow (Mischel et al., 1989).

Most children who delayed their immediate gratification for a larger reward did not just sit patiently and wait. Instead, they

KEY TAKEAWAYS

- Emotional intelligence (otherwise known as emotional quotient or EQ) is crucial for injury prevention and health promotion. Safety leaders must cultivate interpersonal and intrapersonal EQ for themselves and others.
- EQ determines whether motivating arousal leads to productive stress or debilitating distress.
- Type A behavior is risky; Type A emotion is risky and
- unhealthy. Systems thinking and focusing on the present reduces the safety and health risks of Type A behavior and emotion.

engaged in behaviors that apparently facilitated their self-discipline or EQ to resist their impulse for immediate pleasure. Some sang or talked to themselves, some played games with their hands and feet, and others covered their eyes or buried their head in their arms. The diagnostic impact of this simple test was shown when the children were later evaluated during their last year of high school.

Those who had waited patiently when they were tested as children were far superior as students than those who did not wait during the marshmallow test. They were more academically competent, had better study habits and appeared more eager to learn. They were better able to concentrate, express their ideas, and set personal goals and achieve them. In fact, these higher EQ achievers scored significantly higher on both the math and verbal portions of SAT college admission test by an average of 210 total points than those students who had not delayed immediate gratification at age 4 (Mischel et al., 1988; Mischel et al., 1989). Hence, Goleman (1995) concludes, "What shows up in a small way early in life blossoms into a wide range of social and emotional competencies as life goes on" (p. 82).

Taking actions for safety—from using PPE to completing behavioral and environmental audits—is tantamount to asking someone to delay immediate gratification for the possibility of receiving a larger reward (i.e., preventing a serious injury). In the marshmallow test, the delayed and larger consequence of two marshmallows was certain and positive. In contrast, with injury-prevention behavior, the remote consequence of an injury is not only uncertain, it is negative.

Employees are asked to protect themselves to avoid the possibility—perceived as very low in most situations—of receiving a negative outcome. Therefore, while promoting safety is analogous to the marshmallow test of impulse control, it is far more challenging to convince people to delay certain and immediate gratification to avoid an uncertain negative consequence than to earn a delayed but certain positive consequence. Moreover, our attitude, mindset or emotional disposition regarding a certain task is more positive when we are working to gain a pleasant consequence than when we are working to avoid a negative consequence. All of this makes OSH promotion particularly challenging and illustrates the critical need for safety leaders to nurture intrapersonal and interpersonal EQ within themselves and among others respectively, as discussed in this article.

A Personal Story

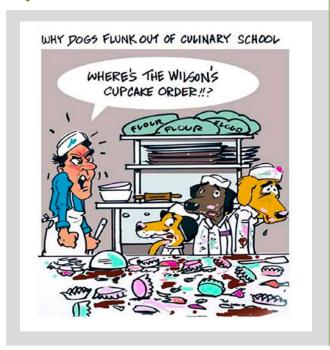
It happened more than 65 years ago, but I remember the incident as if it were yesterday. It was a critical emotional event in my life, and such events often take a permanent seat in long-term memory. The 27 students in my sixth-grade class took an intelligence test, after which we followed the teacher's instructions to grade our own exams. The final test score was presumably a measure of our intelligence quotient (IQ) and was supposedly indicative of whether we should pursue a college education. After calculating our own test scores, the teacher announced that a score of 100 indicated an average IQ. She proclaimed that those who did not score higher than 100 should consider a career path that did not require a college degree. My score was exactly 100, and I was devastated. From the time I entered first grade, I had my heart set on becoming a medical doctor like my father, and now my test score indicated that I was not smart enough to even attend college. When I asked the teacher later, she said that I should lower my aspirations and consider vocational education.

Fortunately, I had supportive parents who helped me overcome this traumatic experience and insisted that I follow my dreams. They reassured me that I should not take the results of that IQ test seriously and pointed out my other achievements. After all, I was an A student and successful in various other group and individual activities from sports and Boy Scouts to playing a musical instrument. However, it was not until I studied psychological testing in college that I realized the fallacy of that traumatic testing experience.

Obviously, students should not have been allowed to see their test scores, and such self-scoring of aptitude and achievement tests ceased many years ago. My college education also informed me about the relative effectiveness (ineffectiveness, really) of IQ test results to predict success in college and a future career. Most importantly, my later study of psychological science in graduate school revealed another kind of intelligence that is much more predictive of people's ability to achieve their career aspirations.

The inspiring fact about this intelligence is that it can be learned and developed through education, training, experience and interpersonal feedback. Goleman (1995) considered this special ability EQ. Table 1 (p. 26) lists five basic capabilities of EQ as explained by Goleman. Consequently, the relevance of EQ for optimizing OSH is obvious.

FIGURE 1 ^{II} **EQ INCLUDES IMPULSE CONTROL**



IQ vs. EQ

It is important to realize the misconception of IQ as a key contributor to success in life. When the author was an adolescent in the 1950s, a person's IQ or mental capacity was considered to be a primary determinant of success in school and in a later career. It was believed that one had to have a high IQ to be a successful engineer, doctor, lawyer or university professor. In those days, it was also commonly believed that paper-and-pencil tests were tools that could obtain a fair and accurate measure of a person's IQ. For example, an individual's score on the SAT (originally, Scholastic Aptitude Test) was presumed to measure the person's capacity to handle collegelevel coursework.

Today, it is generally believed that intellectual capacity (or IQ) is much more complex and difficult to measure (Kaufman & Kaufman, 2018), and the numbers obtained from IQ tests (including the SAT) are not very effective at predicting success in college or in a professional career (Goleman, 1995; Salovey & Mayer, 1990). Relatedly, several years ago, the A in SAT was changed from "aptitude" to "achievement" to reflect a measure of one's level of knowledge from personal learning experiences rather than an inborn intellectual capacity. Today, the Educational Testing Service (creator of the SAT) uses "assessment," presumably to reflect a middle ground between aptitude (innate ability) and achievement (acquired knowledge). The important point for this discussion is that the SAT—whatever the A word—is often an invalid predictor of success (or failure) in college, and this is largely because of EQ.

From his comprehensive review of the research, Goleman (1995) concludes that, "At best, IQ contributes about 20% to factors that determine life success, which leaves 80% to other forces" (p. 34). He then shows convincing evidence that most of the other factors can be associated with EQ or one's ability to:

a. remain in control and optimistic following personal failure and frustration, and

FIVE CAPABILITIES OF EQ

Capability	Definition
Self-awareness	Knowing what we are feeling at the
	moment; a realistic assessment of
	personal abilities
Self-regulation	Handling our emotions so that they
	facilitate rather than hinder ongoing
	performance; delaying gratification
	to pursue meaningful goals
Motivation	Self-discipline to persevere in the
	face of setbacks and frustrations
Empathy	Sensing people's feelings, taking
	their perspective and cultivating
	supportive rapport
Social skills	Reading social situations accurately
	and interacting effectively to settle
	conflict or facilitate constructive
	collaboration

Note. Adapted from Emotional Intelligence: Why It Can Matter More Than IQ, by D. Goleman, 1995.

b. understand, empathize with and work cooperatively with other people.

Gardner (1993) refers to the first ability as "intrapersonal intelligence" and the second as "interpersonal intelligence."

We show intrapersonal EQ when we keep our negative emotions (e.g., frustration, anger, sadness, fear, disgust, shame) in check, and use our positive emotions or moods (e.g., joy, passion, love, optimism, surprise) to motivate constructive action. In contrast, we demonstrate interpersonal EQ when we correctly recognize the moods, emotions, motives, or feeling states of others and react appropriately. This kind of EQ requires both empathic listening and empowering feedback (cf. Geller, 2022a, 2022b). People with high intrapersonal EQ often communicate with others to enhance their self-confidence, personal control, optimism and self-esteem. When individuals demonstrate such interpersonal EQ, they enhance intrapersonal EQ in others as well as in themselves.

Stress vs. Distress

Before distributing that IQ test to the author's sixth-grade class, the teacher announced that the IQ test would determine whether we should plan on attending college after high school. She also told us that we had limited time to complete the test, and she would tell us when to begin and when to stop answering the questions in each section of the test. The teacher's introduction certainly increased the students' motivation to try their best. However, that motivational message could have actually decreased the test performance of some students. Specifically, overstimulation or overarousal can hinder human performance, especially when the person cannot adequately prepare for the challenge, as when taking an impromptu test with no preparatory experience.

Thus, optimal human performance typically occurs midway between low and high stimulation or arousal. Figure 2 illustrates this inverted-U relationship between stimulation/arousal and performance as the seminal Yerkes-Dodson law, which has been demonstrated quite consistently in various situations (Yerkes & Dodson, 1908).

Consider how the Yerkes-Dodson law distinguishes between stress and distress. When people say they feel stressed, they usually mean they feel overwhelmed. However, this unpleasant feeling or perception is not stress, it is distress. The difference between these two person-states is the perception of personal control, or EQ. We experience stress when we are managing our stressors effectively; we are focused and motivated to achieve a positive outcome. People who proclaim that they work best under pressure understand the benefits of stress. Hans Selye, the founder of stress research, asserted, "Complete freedom from stress is death" (Selye, 1974, p. 32).

Distress is the harmful person-state. Dictionaries define it as "suffering of body or mind; pain, anguish; trouble, misfortune ... a condition of desperate need." We are distressed when we are unprepared or ill-equipped to deal with a particular stressor such as taking an IQ or SAT test. An EQ mindset of relevant personal control turns debilitating distress into motivating stress.

Both runners in Figure 3 (p. 28) are experiencing a stressor, as indicated by the butterflies in their stomachs. The butterflies are disorganized in the runner on the left, but they are lined up and organized in the runner on the right. The runner on the left perceives limited personal control, or EQ, and is distressed; the runner on the right feels in control and is motivated by arousal or stress.

Consider the following sequence of cognitive (self-talk) decisions that accompany the anticipation or the occurrence of an environmental event (e.g., a safety talk, performance appraisal, certification exam). First, you decide whether the event is important. If judged important, the event is a stressor. Then you make a second cognitive appraisal: "Do I have sufficient personal control over this stressor?" If your EQ appraisal is that you have sufficient personal control, you experience motivating stress. Alternatively, if you answer no to your appraisal of personal control, the stressor results in debilitating distress.

Type A vs. Type B

Readers have likely heard about the Type A personality trait, which was identified in the late 1950s by physicians Meyer

Friedman and Ray Rosenman as a pattern of behavior presumed to contribute to heart disease (Friedman & Rosenman, 1959, 1974). Type A individuals are competitive, impatient and hostile, and always strive to do more in less time. In contrast, those with a Type B disposition are calmer, more patient, less hurried and less hostile. Obviously, a Type A person is more at risk for experiencing a personal injury than a Type B individual.

People who are impatient and continually attempt to do more in less time are more likely to hurt themselves or others. With a future-oriented mindset, Type A individuals shortcut the current moment to be successful in the next moment. While mindful of their next moments, they miss pleasures of the present moment. In other words, Type A individuals are naturally more aroused or energized than Type B persons. Additional arousal or stress from situational factors can move Type A individuals beyond the sweet spot of Figure 2 and into the overarousal disposition of distress.

Throughout my childhood, my mother frequently reminded me to "slow down and smell the roses." I have always been a Type A individual, and recognize my ongoing challenge to slow down and become more mindful and appreciative of present moments. My Type A disposition certainly influenced extra arousal when taking that IQ test in sixth grade. Combined with the teacher's motivational introduction, my test-taking stress had become distress.

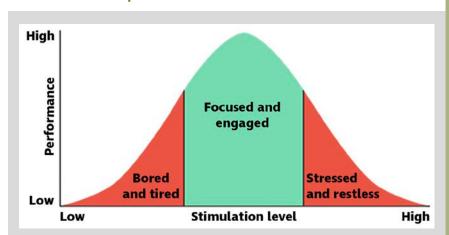
Type A Behavior vs. Emotion

The following situations inform me daily of my Type A disposition and a need to monitor my EQ:

- •I get impatient and experience negative emotions when driving behind a vehicle traveling at or below the speed limit in the left-hand passing lane.
- •I look for the shortest line in the grocery store by not only counting the number of customers in line, but by also estimating the number of items in their shopping carts. If another line starts moving faster, I quickly switch to that line. Then, I feel anger or frustration if the line I just left starts to move faster than my new line.
- •I walk swiftly on moving sidewalks in airports even though I have plenty of time before my next flight. I walk around those Type B folks who seem to be enjoying the ride, then I hustle to my departure gate or the baggage claim area only to wait impatiently for another flight, my checked luggage or a cab.

These examples of a Type A disposition reflect both behavior and emotion. In other words, while rushing to save time (behavior), individuals might feel negatively about those people who get in their way and slow them down (emotion). While the hurried behavior increases risk for personal injury, certain emotions put people at risk for heart disease. Specifically, the emotions of hostility and anger that often accompany timesaving behavior have been correlated with the development of heart disease (Barefoot et al., 1983; Dembroski & Costa, 1987; Houston & Vavak, 1991). Thus, it is crucial to distinguish between Type A behavior and Type A emotion. Type A behavior puts people at risk for unintentional injury, but not for heart

THE RELATIONSHIP BETWEEN STIMULATION/AROUSAL & PERFORMANCE



Note. Adapted from "The Relation of Strength of Stimulus to Rapidity of Habit-Formation," by R.M. Yerkes and J.D. Dodson, 1908, *Journal of Comparative and Neurological Psychology, 18*, 495-482, https://doi.org/10.1002/cne.920180503.

disease. The Type A emotions of anger and hostility, exemplified by "road rage," put people at risk for heart disease and death following heart disease.

Table 2 presents survey items that distinguish between Type A behavior and Type A emotion. If you write a number from 1 to 7 next to each item, you could estimate the extent to which each statement applies to you. A 1 would reflect "not at all," a 4 indicates "sometimes," and a 7 would mean "most of the time."

FIGURE 3 STRESS IS GOOD; DISTRESS IS BAD



SURVEY TO ASSESS TYPE A BEHAVIOR VS. TYPE A EMOTION

Type A behavior	Type A emotion
I experience a lot of time	People seem to annoy me
pressure.	intentionally.
I feel the pressure to get	I often raise my voice.
ahead and succeed.	
I do many things fast	Many situations make me
(e.g., talking, walking,	angry.
eating).	
I work long hours.	People consider me short-
	tempered.
I often want to (and	I have a "short fuse" when
sometimes actually do)	it comes to tolerating
finish other people's	incompetence.
sentences.	
I hate to stand in line.	I try to control my temper,
	but often lose it.
It is not necessary for	I express my anger
others to impose	physically by hitting,
deadlines; I set them for	kicking, slapping or
myself.	throwing things.

The higher a score for the Type A behavior items, the more difficult it may be for you to be mindful of momentary risks to your safety. A relatively high score for the Type A emotion items suggests risk of heart disease and a critical need for intrapersonal EQ. (Note that the items in Table 2 have not been tested as a reliable and valid measure of EQ, but are given to illustrate operational distinctions between the behavioral and emotional ramifications of the Type A personality trait.)

Systems Thinking

When my Type A behavior is slowed down by an environmental or human factor, I attempt systems thinking to stifle an unhealthy Type A emotion. For example, I easily get frustrated when driving on a busy highway and encountering a slow vehicle clogging up the left lane, perhaps because the driver will eventually make a left turn several miles ahead. I can also get angry when a vehicle driver darts back and forth between lanes, often without signaling, just to reduce the trip time by a few seconds. None of those drivers consider the negative effects they are imposing on the overall transportation system, which works best when everyone follows the same rules, norms and courtesies of the road. Nor do these drivers recognize the interdependency—the continuous connections—between their driving behavior and the emotions of themselves and other drivers.

Discourteous and risky driving can trigger negative emotions in other drivers, possibly influencing them to reciprocate with at-risk driving. However, before letting an apparently selfserving driver influence an unhealthy emotion of anger or frustration, it is useful to consider that driver's potential intentions. What if the driver is rushing to the airport for a flight or to the hospital for an emergency? Alternatively, that slow vehicle in the left lane could be driven by a novice driver with limited experience or by a senior citizen with sensory limitations. In both situations, empathy enables healthy emotional regulation or EQ.

Living in the Moment

In the book, *The Present*, Spencer Johnson (2003) advises readers to learn from the past and plan for the future, but to live in the present. In other words, focus on current ongoing positive behaviors, cognitions and context. People who cherish the present apply all their relevant senses. When eating, for example, they use more than their taste buds to savor the distinctive features of a meal. They appreciate the texture of the food, its aroma and the visual display. Plus, they pay attention to the context of the eating environment, perhaps with a focus on picturesque scenery and playful chatter with one or more companions.

As discussed, those with a Type A disposition have a difficult time maintaining a focus on the present. Rather than seizing the moment, these individuals rush through a meal to get to their next activity, which is only viewed as a stepping stone to the next event, and so on.

Consider that individuals in a depressed emotional state might be dwelling on past disappointments. "If only I had done that differently or made another choice," they ruminate to themselves. In contrast, people with an anxiety-ridden low EQ live in pessimistic anticipation of the future. Their self-talk is something like, "What if I can't pull this off?" "What if my support system crumbles?" or "What if Murphy's Law prevails, as usual, and I fail miserably? My future will be ruined."

Such depressed and overly anxious individuals are obsessed with the past or the future, respectively. They may miss the very pleasures of the current moment that could help them

relax and rejuvenate. The melancholy of the past and the insecurities of the future can actually be cast aside by the rapture of the present, if only our hectic lives would permit us to let that happen. Relatedly, Goleman (1998) defines the EQ stage of "flow" among employees as "being emotionally present at work . . . fully attentive, and completely involved in their work—and so perform at their best" (p. 108).

The relevance of living in the moment to OSH is obvious. When workers attend to their ongoing behavior in every respect, they are unlikely to experience a personal injury. Living in the moment means using all relevant senses to recognize ongoing behavior and the surrounding context. Fully encountering the present decreases the probability of a mishap or an unintended injury.

Conclusion

This article reviews dynamics of EQ that relate directly to the challenges of OSH promotion, support and leadership. It is encouraging to realize that we can cultivate EQ components within ourselves and others that are more conducive to personal achievement than the inborn limited capacity of IQ. Moreover, it is useful to consider the varieties of interpersonal and intrapersonal EQ capabilities we need to develop in ourselves and promote among others to optimize OSH.

A discussion of EQ and its ramifications is relevant to many more organizational and societal challenges than OSH. Indeed, many of the serious tragedies of contemporary living—from numerous suicides to disastrous mass shootings—can be attributed to a lack of or a lapse in EQ. For example, the author's 18-month endeavor at developing constructive motivation among 72 deathrow inmates at a maximum-security penitentiary in Richmond, VA, revealed that most of the murders resulted from a lack of EQ or uncontrollable emotions (Geller et al., 1977). Thus, this article merely cracks the surface of the multiple mental health challenges of contemporary society that relate to insufficient EQ.

Nevertheless, the achievement of an injury-free workplace requires self-awareness and control of our own emotions, as well as the assessment, understanding and beneficial influence of other people's emotions. This requires empathic and persuasive communication skills (interpersonal EQ) as well as the self-confidence, personal control, self-esteem and optimism (intrapersonal EQ) to develop and implement new approaches for safety management and leadership. We also need the curiosity to objectively assess the impact of our OSH interventions, the persistence to continue an effective intervention process in the face of active resistance, the flexibility to try new interventions, the resilience to bounce back after failure, and the passion to try again. These are just a few of the EQ capabilities we need to manage as we struggle to achieve and sustain an injury-free workplace.

Perhaps more support for these special EQ challenges can be obtained after helping employers and employees understand the fundamental EQ issue of all safety-improvement interventions. Specifically, OSH requires impulse control under the most difficult circumstances. Employees are asked to do things that are relatively uncomfortable or inconvenient to avoid a negative consequence that seems remote and improbable. That takes a special kind of EQ, whether on the delivery or the receiving end of an injury-prevention intervention process. Indeed, every analysis of a close call or an injury should include Type A behavior and Type A emotion as potential contributing factors, and should consider how a particular dimension of EQ could prevent recurrence of the mishap.

Should a corrective action plan include a discussion of interpersonal and intrapersonal EQ? The author hopes this article inspires a "yes" answer to this question for most analyses of close calls and unintentional injuries. **PSJ** E. Scott Geller, Ph.D., an alumni distinguished professor, has been a faculty member in the Department of Psychology at Virginia Tech for

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