

EMOTIONAL INTELLIGENCE AND SAFETY IN THE WORK ENVIRONMENT

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ABSTRACT

Workplace safety has been important for 50 over years. Popular approaches to improving safety have reduced, but have failed to eliminate, accidents. This may be because research has focused on engineering and culture rather focusing on the influence of attitude change on safe behavior. This paper uses Affective Events Theory [44] and the Theory of Planned Behavior [2] to show the link between emotional intelligence and safety attitudes and behavior and presents testable propositions.

INTRODUCTION

Previous efforts at increasing safety have addressed improving the human interface and reducing risk through engineering and training. Others have used observation and feedback. Others have called for “actively caring”. All of these approaches have made improvements to the safety of the work environment by reducing accidents, though none have been successful in getting organizations to the goal of zero accidents. This may be because the focus has been on the extrinsic factors in terms of changing the environment and processes. Emotional intelligence (EI) has a positive effect on performance in other contexts [15] [19] and this is presumably because it has a positive impact on attitudes conducive to better performance (though there is no known research expressly investigating the EI-attitude link). This paper develops the connection between EI and safety along with propositions.

SAFETY CULTURE

Since 1994 in the United States there has been over an 11% reduction in lost work days and a 45% overall reduction in recordable incidents [32]. At GM they were experiencing an average of four fatalities per year and worker’s compensation cases cost over \$100 million annually [38]. After instituting a safety culture initiative in 1993 the results for 2002 showed no fatalities and a drop in lost work days per 100 employees annually from 4.5 to .29. This equates to 55,000 fewer injured workers per year along with the resultant savings [38].

The earliest attempts at injury prevention focused on engineering a safer work environment, educating employees regarding use of engineering interventions, and enforcing the new work practices with discipline [17]. Removing hazards and re-engineering work areas to eliminate obvious high risk human interfaces resulted in nearly immediate positive outcomes for both the workers and the organization.

The current industry approach to safety that is largely accepted is Behavior Based Safety (BBS). It had its beginnings in separate, but similar efforts by researchers [26] who were working on applied behavioral analysis and for private corporations [23]. In a recent study analyzing the effectiveness of BBS, 31 of 32 research articles reported a reduction in injuries [41].

Throughout this evolution of the practice of creating a safer work environment the focus has been on three primary areas; work environment, people, and behavior [18]. However, just as attending to environmental issues alone achieved good results and then plateaued, BBS efforts are running into the

same phenomenon. The next step being pursued in this area appears to be People Based Safety [18] wherein personality-based measures are used to predict who will be the best candidates to select to create a safer work environment. The first study of this approach showed a higher level of reported injuries in those scoring lower on agreeableness and conscientiousness [7].

EMOTIONAL INTELLIGENCE

EI is the ability to be aware of one's own emotional state, to regulate those emotions, and to respond to the situation that is the catalyst of the emotion in a way that facilitates acquisition of outcomes that are sought by the individual. Freedman [15], and to a lesser extent Goleman [19], advocate "taking the high road". That is, acting with integrity in concert with one's goals, principles, and values. EI has been found to have a significant positive impact on the career outcomes for leaders and managers and on performance of workers [19] [28]. In work settings, EI facilitates addressing the issues rather than taking the politically correct approach. This could result in job loss in a repressive environment, but where there is sufficient job control it creates space for freedom of choice and expression [1]. Benefits of EI are higher commitment, greater job satisfaction, and resilience in the face of difficult situations. The performance improvements attributable to EI are distinct from those attributable to general intelligence [8] [20] [28] [37] [43].

EI AND THE CONNECTION TO SAFETY

Safe behavior has been said to be supported by engineering a safer work environment and educating employees [17], creating opportunities for employees to be observed and receive feedback useful for improving safety [14] [17] [18] [33] [39], and now there is a move to develop tools to predict which employees (or job candidates) will be predisposed to behave in a safe manner [7] [18].

All of these efforts have had a positive impact on creating a safer work environment and reducing accidents, lowering the number of days lost to injuries, and reducing fatalities. However the stated goal of the safety programs is to get to zero, that is, no reportable accidents/incidents. In order to do this it will be necessary to go beyond previous and current initiatives to improve safety address the individual workers' attitudes about working safe, their own safety, and others' safety.

Putting it in terms of Ajzen's [2] theory of planned behavior, the previous attempts have correctly targeted perceived behavioral control (compliance to standards) and subjective norms (safety culture). Attitude toward the act should be the focus of future improvement efforts [30]. EI may have potential for positive influence across a breadth of safety related attitudes.

EI has been shown to be related to a number of positive outcomes including higher performance [28], lower reliance on negative coping strategies [24], and the ability to set priorities and attend to the higher priorities [1]. Also it was found that individuals with higher EI would be more likely to take action to address an issue without regard to political correctness [1]. Placing these findings in a safety context, high EI individuals are more likely to assess situations and proceed in a manner that is safe. In other words, these individuals are more prone to develop a favorable attitude toward the target behaviors.

In describing the process involved with emotions at work Ashkanasy and Daus [4] used Affective Events Theory (AET) first described by Weiss and Cropanzano [44]. It outlines a process whereby the requirements for emotional labor and the nature of the job impact work events, the everyday ups and down that everyone experiences, resulting in both positive and negative emotions at work. These in turn

affect work attitudes and attitudes impact behavior [2] resulting in positive or negative judgment-driven behaviors (quitting , anti- or pro-social behaviors) and/or positive or negative affect driven behaviors (impulsive acts or helping) [44]. Emotional intelligence has an effect on the process through its action as an influence on the experienced emotions potentially limiting negative affect driven behaviors and dampening adverse situation's impact on attitudes.

Applying this line of reasoning to the application of the theory of planned behavior in a safety setting, EI as a personal disposition will influence experienced emotions which will in turn impact attitudes. The quality of empathy [15] [19] will promote considering the impact of the outcome of the act will have on others' well being prior to performing the act. Consequential thinking [15] will result in considering the potential outcomes, beneficial and adverse, short-term and long-term prior to acting. Self-regulation [19] and pursuit of noble goals [15] will influence the person to avoid impulsive action and to do the right thing even if it is not the politically correct or easiest thing to do. If a person has greater emotional intelligence it is more likely that s/he will exercise self control and demonstrate a thought process that results in decisions supportive of a safe environment. Thus:

Proposition 1: Persons with higher EI will have more favorable attitudes toward safe working practices than those with lower EI.

Proposition 2: Persons with higher EI will consistently perform more safely than those with lower EI.

Taking EI to the group level, Druskat and Wolff [11] developed a model of team effectiveness. Teams that have the ability to deal with emotional challenges confronted on a daily basis develop norms in the group that facilitate creation of an "affirmative environment and encourage proactive problem solving" [11, p. 85]. The use of social skills grounded in emotional intelligence between groups resulted in an increase in productivity of over 20% [11]. Others [25] found that coaching can improve performance of low EI workgroups so that they come up to the levels of higher EI workgroups. Goleman [20] associates EI with the ability to provide constructive feedback to groups resulting in higher performance. In other research [24] it was found that untrained teams of highly emotionally intelligent individuals performed as well on measures of team performance as trained teams made up of low emotional intelligence members. It is evident that EI is linked to the effective functioning of groups and we can expect that similar outcomes in terms of safety attitudes and behaviors for high EI groups. Therefore there is evidence to support the following propositions:

Proposition 3: Teams or groups with higher EI will have more favorable attitudes toward safe working practices than those with lower EI.

Proposition 4: Teams or groups with higher EI will consistently perform more safely than those with lower EI.

CONCLUSION

Engineering, discipline, and BBS have made significant improvements in safety. It appears that Person-Based safety has potential to make significant improvements as well. The next promising area of research is EI and attitudes toward safety. It has been shown that there is a linkage between EI and safety and EI and attitudes. There is reason to believe that this relationship will exist at both the individual and group level. The next logical step is to field test the proposed links between EI and safety attitudes followed by an experimental study to see if improving EI through training will have a positive impact on safety behaviors. If this line of reasoning bears fruit it will both advance our understanding of safe behavior in the workplace and it will provide one more tool to use to move closer to reaching the goal of zero accidents.

The full version of the paper, references, and figures are available on request.