Association of Various Dimensions of Perfectionism with Mechanical Engineering

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Abstract
Present work deals with various dimensions of perfectionism along with negative perfectionism. The effect of perfectionism involved in mechanical engineering also includes the risk factor which tends to be very high in this field.

Keywords: perfectionism, perfectionism, other – oriented perfectionism, self-oriented perfectionism, socially prescribed perfectionism, risk in engineering

1. Introduction
The perfectionism is a multidimensional construct that plays an important role in the adjustment of an individual in the organization. Hewitt and Flett (1991) differentiated three types of perfectionism: Other – oriented perfectionism, self-oriented perfectionism, and socially prescribed perfectionism. Other-oriented perfectionism involves demanding that others meet exaggerated and unrealistic standards. Self-oriented perfectionism involves active striving to be flawless in work environment. Often, self-oriented perfectionism appears to have greater adaptive potential. It is related to resourcefulness and constructive striving. Socially prescribed perfectionism is the belief that others maintain unrealistic and exaggerated expectations that are difficult to achieve, nevertheless, one must meet these standards to win social approval and acceptance.

One of the first theorists to mention perfectionism was Adler (1956). He claimed that we all strive to reach a goal that makes us feel strong, superior, and complete. As a result, striving for perfection is a normal phenomenon for most individuals, and the urge to live is tied to this striving. Perfectionism has been conceptualized both as a stable personality trait that results in individuals, engaging habitually in the same patterns of behavior and thinking styles or as the ways in which individuals think about such behaviors. Therefore, perfectionism is a personality trait that is characterized by the person’s striving for excessively high standards of performance, accompanied by a tendency to be overly critical of her or his own behavior.

2. The Dimensions of perfectionism
In one model, the dimensions of perfectionism are divided into positive and negative components. Positive (healthy) perfectionism is defined in terms of achieving positive consequences and the motivation to achieve a certain goal in order to obtain a favorable outcome. Negative (unhealthy) perfectionism is defined as a function of the avoidance of negative consequences and the motivation to achieve a certain goal in order to avoid adverse consequences. This distinction between positive and negative perfectionism is grounded in behavioral theory, where a similar behavior might be associated with different emotional responses, depending on whether it is a function of positive or negative reinforcement. The dimensions of perfectionism are divided into positive and negative components. Positive (healthy) perfectionism is defined in terms of achieving positive consequences and the motivation to achieve a certain goal in order to obtain a favorable outcome. Negative (unhealthy) perfectionism is defined as a function of the avoidance of negative consequences and the motivation to achieve a certain goal in order to avoid adverse consequences. This distinction between positive and negative perfectionism is grounded in behavioral theory, where a similar behavior might be associated...
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Another study showed that positive perfectionism was correlated positively with pride and negatively (with moderate correlations) with other investigators. Pride’s has negative correlation with anxiety, hostility, shame-proneness, and negative perfectionism support the notion that it is an adaptive emotion. Negative perfectionism was significantly related to anxiety, shame, and shame-proneness. Another study (Ram, 2005) showed that positive perfectionism was associated with higher academic achievement, higher motivation for achievement, positive personality factors, and the use of functional coping strategies. Negative perfectionism was generally found to be associated with negative personality factors, and the use of dysfunctional coping strategies. It was not associated with academic achievement or achievement motivation. A study in Iran by Hajloo N Sobhi – Farmaleki N, Rahbar M, Haghigatgo M (2011) showed that positive perfectionism is associated with higher advancement, self-esteem, and negative perfectionism associated with low self-esteem, depression, and illogical beliefs.

Positive perfectionism and negative perfectionism were found to be positive and negative predictors, respectively, for depression and anxiety and, conversely, negative and positive predictors for academic achievement, respectively (Roohafza et al., 2010). The Various aspects of both positive and negative perfectionism have some similarities, that they tend to be intrinsically oriented and focused on internal rewards, processes, and achievements. This is somewhat different from some of the other items that failed to have impacts on either of the factors because they focus more on outcome (Haase and Prapavessis, 2004).

Some studies conducted within business organizations (Stoeber and Evsenck, 2008) have shown that perfectionist standards are associated with reduced efficiency, demonstrating the importance of considering invested time, errors, and response bias when investigating the relationship between perfectionism and performance.

3. Risk factors in Mechanical Engineering:
Mechanical engineers use science and math to design tools, equipment and machinery to help with a variety of industry needs. They often work with heavy equipment, power tools, motors and technical instruments to create, test and perfect mechanical devices. Because they work with toxic substances, powerful machinery and volatile materials, their work environment is susceptible to fires, explosions, structural failures and equipment malfunctions. Safety measures are vital to a mechanical engineer’s job success. The field of mechanical engineering deals with a high risk as the machines, tools and other equipments may have prove to be health hazard if not used carefully making this field of engineering high on risk factor. Mechanical engineers don't just work in testing laboratories. They often work on site at locations that aren't well-suited to the job demands. For example, a mechanical engineer might need to address railcar problems in a subway while passengers and crew members anxiously await assistance. Or, an engineer might be hired to work on equipment that is confined to a small space with limited accessibility. As a result, engineers must prepare for unexpected situations by applying security measures on the fly. They might not be aware of leaky hoses, structural flaws, or dangerous situations until they arrive on location and are asked to troubleshoot problems. Mechanical engineers often work with machinery and equipment that is heavy, cumbersome and structurally unstable. They might injure their backs trying to secure equipment or stabilize materials, crush their hands or fingers trying to work in tight spaces or injure their faces, heads, eyes or toes when proper protective equipment isn't worn. Even though mechanical engineers use technology, computer-aided design software, and their brains to solve mechanical and structural issues, the job also requires hands-on engagement.

4. Discussions
With the understanding of all the risk involved in mechanical engineering, we have come to a conclusion that there is a need of high level of perfectionism. As human life is at stake so the working has to be perfect so as to avoid any accidents and relating injuries to people involved. Mechanical engineering is a field wherein the risk would not only be to the people involved but others as well. The machines and equipments can prove to be harmful to any person using the equipment, if not tested and perfected beforehand. In the field of
5. Concluding remarks
1. The dimensions of perfectionism are directly connected to mechnically engineering as risk would only be countered with perfectionistic behaviour in work.
2. With understanding of positive perfectionism, it can be utilized to create better safety messures and safer equipments.

References