The essence of quality is the application of science to business. W. Edwards Deming cited four branches of scientific knowledge essential for leadership, which he called profound knowledge:

1. Knowledge of variation.
2. Theory of systems.
3. Theory of knowledge.
4. Psychology.¹

In his later years, Deming was particularly interested in psychology. In many of his four-day seminars—a couple of which I attended—he added an optional evening session on psychology. The session was led by a psychologist, and Deming sat in the audience.

Since that time, psychology has changed considerably. First, cognitive psychology supplanted behaviorism as the dominant field in scientific psychology. This was underlined in 2002 when Daniel Kahneman became the first psychologist to win the Nobel Prize (in economics, because there wasn’t a prize in psychology) for his work with psychologist Amos Tversky in cognitive psychology.

New evidence suggests employees’ emotions are directly correlated to their performance | by Brooks Carder
Perhaps of equal importance, in 2000, Martin E. P. Seligman and Mihaly Csikszentmihalyi published an article in a special edition of American Psychologist introducing a new discipline: positive psychology.² They pointed out that the history of psychology had been dominated by responses to pathology and suggested it was time to “emphasize positive subjective experience; positive traits such as hope, wisdom, creativity, future mindedness, courage, spirituality, responsibility, and perseverance; in positive institutions.”³

Moreover, they argued it was time to consider how to prevent pathology rather than treat it. An important objective was to increase well-being and life satisfaction in healthy people. Without the shift to cognitive psychology, this could not have happened—behaviorism has no place for concepts like affect and consciousness. Interestingly, Kahneman has shifted his research to the study of affect and positive psychology.⁴

Quality, like psychology, traditionally has been about the discovery and correction of weakness. It tends to portray employee well-being as a side effect of quality improvement. Based on an exhaustive survey of quality managers, authors Nabil Tamimi and Rose Sebastianelli listed the top 25 barriers to quality improvement.⁵ There was no mention of employee well-being, happiness, job satisfaction, joy or anything related to employees’ subjective experiences. However, a variety of terms related to positive affect were used.

More recently, Seligman settled on the concept of well-being, and assessed it using what he calls the PERMA model—positive affect, engagement, positive relationships, meaningful life and accomplishment.⁶

In fact, the primary reference to subjective experience in the quality field is when Deming announced that the object of quality was “joy in the workplace.”⁷ The implication of his statement was that joy in the workplace was a result of effective quality management, not a driver.

There are a few instances in which positive affect is considered a driver, such as an Institute for Healthcare Improvement (IHI) white paper called, “IHI Framework for Improving Joy in Work.”⁸ Although the main impetus appears to be reducing staff burnout, the authors do point out that increasing joy also improves work performance.

When Deming discussed joy in the workplace, the science of positive psychology wasn’t available to him and, surprisingly, the IHI white paper doesn’t take advantage of the extensive literature on the topic. But now that it is available to us, we must not ignore it. Positive psychology has powerful implications for effective leadership—there is clear evidence that well-being is, in fact, a driver of performance.

**Historical examples**

History contains some notable examples of leaders attempting to enhance employee well-being under the assumption that it would have a positive effect on performance. In fact, the oldest and probably largest organization in the United States that has done so is the U.S. Army, which has a long history of emphasizing the importance of positive treatment of soldiers.

One such example is a letter commissioned by George Washington on the treatment of soldiers at Valley Forge:

“A captain cannot be too careful of the company the state has committed to his charge. He must pay the greatest attention to the health of his men, their discipline, arms, accouterments, ammunition, clothes and necessaries. His first object should be to gain the love of his men by treating them with every possible kindness and humanity, inquiring into their complaints, and when well founded, seeing them redressed. He should know every man of his company by name and character. He should often visit those who are sick, speak tenderly to them, see that the public provision, whether of medicine or diet, is duly administered, and procure them besides such comforts and conveniences as are in his power. The attachment that arises from this kind of attention to the sick and wounded is almost inconceivable; it will moreover
These leaders apparently believed that well-being enhances performance and negative emotions impair performance. In the past decade or so, there has been a considerable amount of scientific evidence showing that this belief is correct. This evidence was a long time coming—historically, psychology was ruled by behaviorists who denied the influence of subjective experience. Deming attributed joy in work to the factors that enable intrinsic motivation. That is largely correct, although pay has an influence as well. Deming had only his personal experience.

The effect of emotion

Seligman was not the first to assert the importance of positive emotions. According to Seligman, humanists like Abraham Maslow pointed this out. However, Seligman’s positive psychology is based on large amounts of experimental data. He literally assembled an army of scientists, mostly young, to work on the issues of positive psychology.

To provide some of the scientific evidence, consider a clear example of the effect of emotion on performance. This study provides insight into one mechanism by which positive emotion can influence work performance.

Most readers are probably familiar with the remote association test (RAT). Participants are given three words and asked to find a fourth word that is related to the other three. A simple example is cottage, Swiss, cake. The answer is cheese. Consider a harder set, solved by only about 20% of subjects: dive, light, rocket. The answer is sky. Of course, there are triads that have no solution, such as dream, ball, book. Most tests of creative ability employ the RAT.

In their study of the RAT, a team of German scientists discovered, to their surprise, that participants given a hard problem knew whether it was solvable before they found a solution. Participants were given combinations that would normally take about 15 seconds to solve. They were asked to guess whether the problem was soluble at the two-second mark. Their guesses were better than chance.

This is an example of intuition, an important component of creativity. The researchers computed an intuition index measuring the effectiveness of this intuitive process and studied the effects of emotion on the index. Participants experienced positive affect by thinking about a happy event in their lives or negative affect by thinking about an unfortunate event in their lives. Positive affect increased the intuition index, while negative affect brought it to zero.

Intuition is important because it guides us toward the solution of difficult problems. How does the scientist decide what line of study to pursue? How does the businessman decide which product will be strongest in the marketplace? Effective intuition offers a powerful advantage. It is the lifeblood of
creativity, which is why most tests of creative ability employ the RAT as part of their test.

What about the effect of employees’ happiness on the performance of the organizations they work for? Alex Edmans, a professor of finance, studied the price of stock for organizations included in the 100 Best Companies to Work For, published annually by Fortune. Inclusion in this list is based on an extensive survey of employees.

According to Edmans, “firms with high levels of employee satisfaction generate superior long-horizon returns, even when controlling for industries, factor risk, a broad set of observable characteristics.”

There is a limitation here. Unfortunately, correlations do not determine the direction of causation. It is quite plausible that being highly profitable increases the attractiveness of working for an organization and makes the employees happier.

Our own data confirm the importance of employee satisfaction on job performance. We have studied safety for many years using surveys. Several questions on our survey have no explicit relationship to safety, but an obvious relationship to employee morale:

+ “I am confident of the organization’s future success.”
+ “Employees trust the information that management provides about the organization.”
+ “Managers treat subordinates with respect.”
+ “Supervisors treat subordinates with respect.”

These questions strongly correlate with safe work performance and imply that treatment of employees is the causative factor because the notion that safe work performance causes supervisors to treat employees with respect, or leads employees to trust the information provided by management, isn’t plausible.

A web search for “positive psychology in business” yields scores of testimonials about the discipline’s positive effect on business performance. However, none seems to come from quality literature.

Some of the research that is out there is good, such as a piece by Gallup Inc., a management consulting organization, which has been studying employee engagement for several years. The article offers praise for the prospects of positive psychology and proceeds with an interview of a senior Gallup scientist discussing the applications of positive psychology.

In another study, Jan-Emmanuel De Neve, Christian Krekel and George Ward studied the drivers of employee satisfaction. In order of importance, these drivers were:

1. Social relationships on the job.
2. Interesting job.
3. Pay.
5. Difficulty, stress and danger.
7. Opportunities for advancement.
8. Independence.
10. Usefulness.
11. Working hours mismatch (discrepancy between desired and actual hours).
12. Working hours.

The last two are not significant drivers. The strongest driver—social
relationships on the job—was dominated by the relationship with the employee’s manager. This is in line with our survey results because our questions relate to the employees’ relationships with management.

“Social relationships on the job” accounts for 28% of the variance in job satisfaction and “having an interesting job” accounts for 27%, so these are substantial correlations. The variance for “pay” drops down to 13%.

The authors cite experiments to support their conclusions. For example, the Work, Family and Health Network—a collaborative research effort between the National Institutes of Health and the Centers for Disease Control and Prevention—designed an intervention to increase employees’ control over their work schedule, raise employee perceptions of supervisor support for their personal and family lives, and reorient the working culture from face time to results only. As long as he or she is productive, the employee can use his or her time as he or she pleases.

The network provided an eight-hour course to managers in this process and conducted a randomized controlled trial in an IT group with 867 employees. Half of the group received business as usual, and half received the intervention. The experimenters found that the intervention significantly reduced burnout and raised job satisfaction. These effects were partially mediated by decreases in family-to-work conflict and, perhaps less surprisingly, increases in schedule control. There also is some evidence that the intervention decreased perceived stress and psychological distress.

Happy employees who are satisfied with their jobs are more engaged, more creative, do superior work and are less likely to leave the organization. Or, according to Gallup, “Led by such pioneers as Donald O. Clifton, Ph.D. [an accomplished scientist and owner of Gallup], Martin Seligman, Ph.D., and Mihaly Csikszentmihalyi, Ph.D., positive psychology explores ways to help people flourish rather than simply function. This view provides rich possibilities for executives who want to improve organization performance by encouraging, promoting, and expanding human potential. Applying positive psychology can have a direct effect on employee and customer engagement and loyalty—and thus the bottom line.”

Perhaps the most massive intervention based on positive psychology brings us back to the U.S. Army. In December 2008, Seligman was called to a meeting chaired by Gen. George Casey, the four-star Chief of Staff of the Army. Casey described the problems observed in so many soldiers after deployment—suicide, drug abuse, post-traumatic stress disorder (PTSD), panic, depression and divorce—and asked Seligman what positive psychology had to say about it.

Seligman pointed out that just as many people grow from a traumatic experience as are disabled by one. He offered that resilience training could insulate more soldiers from the negative effect. The objective of resilience training is to move people from the disabled category to the growth category. Basically, it’s a form of optimism training and teaches cognitive coping mechanisms. Seligman initially designed a pilot study to assess the effectiveness of the training, but Casey, citing deep concerns about soldiers deployed in Iraq and Afghanistan, insisted that they go forward with a massive training program. Today, they have provided master-level resilience training to more than 40,000 trainers in the Army.
The eventual effect on deployed troops has been profound. For soldiers who received the resilience training before deployment, the subsequent diagnosis rates of PTSD, anxiety and depression were reduced and the rate of substance abuse was halved.

Positive psychology and quality

Now we come to the question: What—if anything—should a quality professional do with positive psychology? The first step is to measure employee well-being. A skilled interviewer can obtain useful information about employee well-being, and there are numerous free scales to measure well-being and job satisfaction.

A good place to start is the International Social Survey Program survey on work orientation. The job satisfaction score on the survey is highly correlated with employee retention. In addition, this survey was used to measure the effect of the 12 drivers of employee well-being listed earlier.

Alternatively, use a questionnaire on work-life satisfaction from the Authentic Happiness website. These surveys have been taken by as many as a million users, and thus have extensive norms.

If you find low scores on job satisfaction and some of the factors driving well-being, the challenge is convincing leadership to take action to improve. This activity likely will involve dealing with the culture of the organization and will not be a simple task. However, failing to do it will greatly limit the potential success of the engagement.

The bottom line is that positive treatment of employees is not only the right thing to do, it’s the most effective thing to do.

REFERENCES

3. Ibid.
15. Ibid.

BIBLIOGRAPHY


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