





BY KENNETH M. NOWACK

"Honest criticism is hard to take, particularly from a relative, a friend, an acquaintance, or a stranger." –Franklin P. Jones

The all can recall a time that a partner, family member, friend, or colleague gave us some well-intended feedback that seemed to really hurt. Most of the time, the intention of feedback is to convey a perception others have of us. In many cases, it is a direct or indirect request for us to change our behavior. Research points out just how powerful both positive and negative feedback can be.

New research about the neurobiology of feedback gives us important clues about why feedback sometimes can do more harm than good, how much positive-to-negative feedback we receive becomes the "tipping point" to the discomfort we feel, and how we can frame information to others in a way to possibly minimize defensiveness and increase their acceptance of the feedback.

Mental and physical effects

Feedback is one important factor in defining the quality of our relationships both at home and at work. Current research suggests that strong relationships with one's partner, family members, co-workers, boss, and friends are significantly associated with several important emotional and health outcomes, including:

- enhanced immunity, measured by natural killer cells and IL-6 cytokines
- · less burnout
- · decreased depression
- less inflammation, measured by C-reactive protein
- · enhanced job satisfaction and engagement
- less physical illness during life, based on meta-analytics reviews of more than 148 studies
- greater longevity, based on a 20-year longitudinal study.

Newer neuroscience research sheds some interesting light on why negative feedback is potentially emotionally harmful. In general, stressors that induce a greater social-evaluative threat elicit significantly larger cortisol and ambulatory blood pressure responses. These social stressors result in the "fight or flight" stress hormone called cortisol elevating three times higher than noninterpersonal stressors, and it takes 50 percent longer for this important regulatory hormone to go back to its baseline state.

Interestingly, women apparently have a secondary biological stress reaction labeled by Shelley Taylor, a prominent social psychologist at the University of California, Los Angeles, as the "tend and befriend" response. Taylor's research, and those of others, suggests that women under stress are more likely to express emotions and behaviors consistent with nurturing, care taking, sensitivity, and bonding.

This secondary stress response appears to be largely due to a reproductive hormone called oxytocin (the "pro-social" or "cuddle" hormone). Recent findings by social economist Paul Zak, from Claremont University, and others, have shown that oxytocin plays an important role in facilitating trust and collaboration with others and might be a marker for those who lack basic warmth and empathy (for example, sociopaths) as well as even being a possible short-term treatment approach for some of the autistic spectrum disorders.

Physiological effects

It seems that emotional and physical pain follow the same physiological pathways in our brain and can both lead to the same outcomes of depression, inflammation, and fatigue. In a study by Naomi Eisenberger and colleagues at UCLA, she was able to use the latest technology to peer into the inner workings of our brain called functional magnetic resonance (fMRI) while participants were involved in a social exercise designed to provoke feelings of social isolation and rejection.

Comparison of fMRI brain activity revealed that social evaluation and rejection tend to evoke the same neural pathways as those associated with physical pain. Indeed, a "broken heart" might be an apt description of how our brain treats rejection, bullying, and social evaluation.

In one of the most cited review studies on performance feedback, Avraham N. Kluger and Angelo DeNisi analyzed more than 600 effect sizes and found that there was a significant effect for feedback interventions. However, in 33 percent of all studies, performance declined.

Although the authors speculated about many reasons why performance feedback led to worse performance on the job, they seemed to suggest that in most cases it leads to individuals feeling hurt, demotivated, and emotionally upset. If Eisenberger and her colleagues are correct, it would appear that prolonged negative feedback, in some cases, might be potentially harmful to your health.

Emotional effects

Everyone has experienced physical pain, and one of the first things we often do is take a pain reliever such as aspirin or acetaminophen. But physical pain isn't the only kind of pain we might experience. Our feelings also can be hurt from feeling slighted, having our ideas rejected, or even being given feedback we experience as judgmental and evaluative.

C. Nathan DeWall of the University of Kentucky and his colleagues wondered whether acetaminophen, which acts on the central nervous system, could blunt social pain, too. In several experiments, healthy college students were randomly assigned to take acetaminophen or a placebo twice a day for three weeks. Those who took acetaminophen reported experiencing significantly fewer hurt feelings in their overall reporting of social interactions they had with others.

Those who had taken the acetaminophen exhibited significantly less neural activity in areas of the brain previously associated with experiencing social and physical pain when other players stopped tossing the ball to the subject who still reported social stress from being left out and rejected.

These studies help to validate that physical hurt and social pain are strongly linked. However, just how much constructive criticism or perceived negative feedback is harmful to our mental and physical health?

The tipping point

Is there a ratio of positive-to-negative communications, interactions, and behaviors that predicts individual health, longevity, performance, relationship success, and even how effectively a team performs? Across different disciplines, researchers continue to find an interesting relationship between positive-to-negative expressions of thoughts, feelings, and behavior that do seem to predict things as diverse as how long we will live to how effectively teams function and produce great results. Here are a few examples.

Longevity in life. In a 2001 study, developmental psychologist Deborah Danner and colleagues from the University of Kentucky analyzed and scored for emotional content the one-page handwritten autobiographies from 180 Catholic nuns that were composed when they were a mean age of 22 years old. The study revealed that the nuns whose autobiographies contained the most sentences expressing positive emotions lived an average of seven years longer than nuns whose stories contained the fewest. Positive feedback. In a 2004 study by James Smither and colleagues, researchers analyzed the impact of upward feedback ratings and narrative comments for 176 managers during a one-year period. They found that those who received a small number of unfavorable behaviorally based comments improved more than other managers, but those who received a large number (relative to positive comments) significantly declined in performance more than other managers.

Marriage/relationship longevity. John Gottman, professor emeritus of psychology at the University of Washington, followed 700 couples for 10 years and found that when there was less than a five-to-one positive-to-negative ratio in a videotaped interaction of 15 minutes, it predicted subsequent divorce with a high level of accuracy (81 percent to 94 percent).

Psychological well-being/life satisfaction. University of Michigan researcher and psychologist Barbara Fredrickson examined



students' month-long diaries, and the positive-to-negative ratio of emotions seemed to differentiate those who were languishing from those who were high in psychological well-being. She found that students who expressed a ratio of three times as many positive emotions as negative emotions reported significantly higher levels of life satisfaction and overall happiness than the other students.

Although some current research has questioned the appropriateness of the original mathematical models used in earlier studies on positive-to-negative ratio, it still appears that the secret to individual and team health and productivity might be as simple as accentuating the positive-to-negative ratio of emotions and behaviors and being aware of when our own self-talk and expressions seem tilted in the wrong direction.

Feedback techniques

We all know that some feedback techniques and approaches seemingly work better than others. When delivered and received well, most people perceive feedback as it is intended to be—constructive, useful, and helpful. Three techniques that have a higher success rate in practice include feedforward, DESC, and give-get-merge-go.

Feedforward. Would you be open if a trusted partner or individual you knew offered you specific tips to help you be more successful in the future? Of course you would, and this is the concept behind what coach guru Marshall Goldsmith termed as feedforward.

An example might sound like this: Next time you are in a staff meeting, you can be even more

SOCIAL EVALUATION AND REJECTION TEND TO EVOKE THE SAME NEURAL PATHWAYS AS THOSE ASSOCIATED WITH PHYSICAL PAIN.

effective in getting everyone to participate by directly asking for the opinion of others without trying to provide more rationale or logic to why your approach is the best way to go.

This feedforward method of communicating with others tends to diminish defensive reactions and increase the likelihood the other person will be receptive to your constructive comments and suggestions for improving in future situations and interactions.

DESC. The DESC feedback technique—describe, express, specify, consequences—is a simple and powerful way to express to others what you would like them to do more, less, or differently to maximize your relationship or improve the work they are doing. This technique works best with people who you have some emotional currency with and who are likely to care about your feelings and requests.

With practice, you can use this technique to get out on the table what you have observed and would like others to do to change their behavior. Write out four brief sentences, mentally rehearse them, and attempt to get them all expressed to begin a longer conversation with others.

First describe the perceived behavior of others. Use an "I" statement (not "We all noticed that ..."); focus on only one behavior that is important to you; refer to a behavior that is fairly recent; practice using words that are nonevaluative (for example, avoid using *always* or *never*); and don't mention personality or style.

Next, express how the behavior of others makes you feel. Share either a positive or negative emotion that their behavior caused for you.

Specify the one thing you would like the other person to do more, less, or differently, or stop or start doing. Prioritize only one behavior that is most important to you, and make sure to be as specific and concrete as possible.

Finally, share the consequences of their behavior change. Start first with the positive benefits for you. If this conversation is not the first time you have raised this issue or asked for the behavior to change, shift to consequences that might be perceived to be more negative. Make sure that the consequence you share is

one you are willing to back up and act on. **Give-get-merge-go.** This technique is a great way to assert and express your ideas and opinons and be seen as involvement-oriented and participative with others. The sequence of feedback steps is important:

- Give your point of view. Don't ask others for their ideas and opinions first—assert your own ideas and suggestions in this first step.
- Get their point of view by actively soliciting their reaction to your idea, suggestion, or proposal. For example, "What reactions do you have to my suggestion?"
- Merge their suggestion with yours, but first paraphrase to make sure you completely understood their point of view and alignment with your own thoughts and suggestions. For example, "If I understand what you are suggesting, it is ..."
- Go ahead and summarize where you both agree and then where you disagree to clarify what else you need to discuss further.

Even if you "agree to disagree," the interaction typically will be seen as less confrontational and in the spirit of seeking a win-win solution.

Successful behavior change

Feedback, when perceived critically, does seem to negatively affect both individual and team effectiveness and health. Yet, feedback is a necessary condition of successful behavior change. When possible, try to use feedforward to minimize defensiveness and increase acceptance to look for ways to grow and learn.

If you do need to ask others to change their behavior and provide them with constructive criticism, consider using either the DESC or give-get-merge-go technique to leverage your results. There is no guarantee that these feedback techniques will always work perfectly, but they just might take the pain out of your interpersonal interactions.

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