

andy hearts and silly love songs manipulate one of your most powerful emotions: love. Barbara L. Fredrickson, PhD, is a psychological scientist and director of the PEP Lab at the University of North Carolina at Chapel Hill, and she doesn't think of love simply as "romantic, exclusive, lasting, and unconditional." She studies love within "cellular architecture," the way your body responds to meaningful connection and how this allows you to develop better relationships on all levels.



In her book, Love 2.0, Fredrickson explores love from a scientific perspective in order to strengthen your capacity to increase loving feelings from the inside out. There's one key concept she wants you to remember: love is an emotion, not a status. "Emotions last just seconds or minutes, and are, by definition, embodied states that can quicken your heartbeat and kick off biochemical cascades," she says. "Although you might define love as a bond or commitment, your body defines love as micromoments of positive emotional connection that you share with others. It is from an accumulation of such moments that bonds and commitments are built."

Fredrickson uses the concept of "positivity resonance" to describe these moments and their intensity. To understand this resonance, you first need to travel the path of your vagus nerve, also referred to as the 10th cranial nerve, or cranial nerve X. Vagus translates to "wandering," and this nerve meanders through your entire body, triggering responses along the way. It starts in the medulla oblongata of your brain, which controls involuntary movements such as swallowing, breathing, and sneezing; moves through your throat; and encompasses multiple vital organs, including your heart, lungs, and intestines. The vagus monitors your body's various sensations and responses, as well as emotional intuitions, and sends signals to your brain. It's a conduit for your parasympathetic nervous system, helping to coordinate the "calm and connect" response.

In her research, Fredrickson noticed that your vagal tone—a pattern established by measuring heart rate with breathing rate—determines astounding interconnectivity. The higher your vagal tone, the more likely you are to have lessened physical responses to external stressors, greater capacity for regulating emotions and attention, and increased occurrences of positivity resonance. It's a simple loop. "Those who experienced the most frequent positivity resonance in connection with others showed the biggest increases in vagal tone," she says. "Love literally made people healthier."

It's difficult to personally assess your vagal tone unless you're surrounded by scientists and hooked up to various sensors. Fortunately, you can continuously improve it, and increase your ability to experience positive connections. Fredrickson and her team find success with research participants who regularly practice loving-kindness meditation, or LKM. "In our studies, we learn that people who practice LKM experience more positive emotions throughout their day," she says. "They also feel closer to and more 'in tune' with others. These emotional and social shifts have domino effects on people's health. For example, we have seen improvements in cardiac health after just a few months of practice."

Based on these successes, Fredrickson developed five primary guided mediations. "The meditations I've been testing are actually ancient, going back some 2,500 years," she says. "So if you try out 'loving-kindness meditation' you can be assured that, like yoga, the benefits of the practice have been sharpened over centuries."

- Loving-Kindness: the ancient practice of metta bhavana, which is the method of developing compassion and cultivating love
- Self-Love: overcome the challenges of sending love to yourself
- Compassionate Love: bend your love into compassion for those who suffer
- Celebratory Love: expand your love to share the joy of others' good fortune
- Loving All: stretch your love further still, excluding no one

But how can you create a positive micro-moment right now? Fredrickson suggests simply taking time each day to reflect on connections. "Pausing on the moments in which you feel close and in tune is another way to develop an open heart and a healthy heart."

Fredrickson's site, Positivity Resonance (positivityresonance.com) outlines more concepts from *Love 2.0*, connects you with her Happify mobile app, provides access to her specialized meditation sequences, and offers resources for other meditations from whom she calls "true masters of LKM."

The PEP Lab (positiveemotions.org), studies people's emotions, particularly their positive emotions, and how they affect thinking patterns, social behavior, health, and physiological reactions. It features a number of resources to help your quest of living a full and meaningful life.