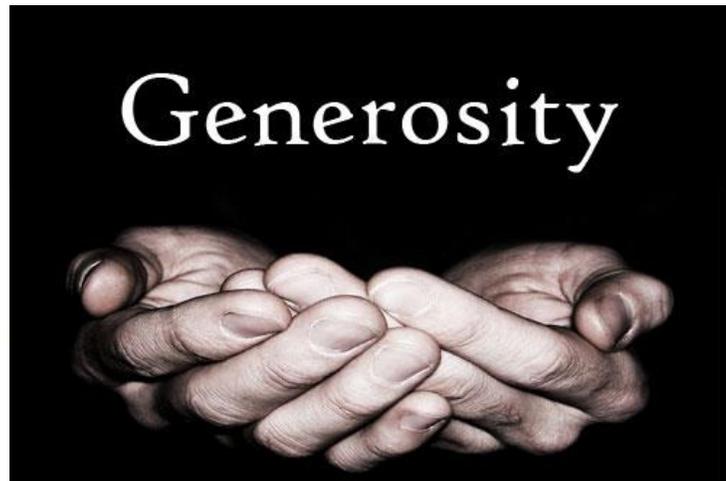


## Module Five, Lesson Three

Each day, life presents us with hundreds of opportunities to be kind and generous, whether it is offering our seat to an elderly passenger on the subway or by volunteering at an animal shelter.

By giving and being unselfish, we not only help others, we protect our own health, prolong our lives, and enhance our brains.



### Generosity and Your Brain

The feel-good effects of giving begin in the brain. It has been called “giver’s glow” and is triggered by brain chemistry in the mesolimbic pathway, which recognizes rewarding stimuli.

Philanthropy does this by triggering the production of several “happiness” chemicals, including dopamine, endorphins that give people a sense of euphoria and oxytocin, which is associated with tranquility, serenity, or inner peace.

Viewing the brain with MRI technology during moments of generosity or selfless behavior has led scientists to uncover that even the *thought* of giving can stimulate this response.

### Mental and Physical Benefits of Giving

Numerous studies have attempted to capture the benefits of giving, and they’ve consistently shown that giving makes people feel good. Whether it’s volunteering or donating cash, selfless action can help lessen the risk and symptoms of depression and day-to-day stress.

One study published in 2013 found that giving time and assistance to others reduced the mortality risk tied to stress, a known risk factor for many chronic diseases including dementia. According to the study, which looked at 846 adults in the Detroit area, stress did not predict mortality for participants who had helped others within the previous year. But the link between stress and mortality was apparent in people who never lent a helping hand.

Another interesting study followed more than 2,000 participants in California and found that volunteerism reduced mortality rates more than exercising four times a week and attending church regularly! Subjects who volunteered for two or more causes had a 63 percent lower rate of mortality than people who didn't volunteer during the study period.

Charitable donations can also trigger the mesolimbic system in much the same way, but there are more benefits to the brain when you have a direct relationship with the person or people being helped.

Remember when we talked about the amygdala in our previous lessons? That is the part of the brain that is activated when we recall emotionally charged memories, such as a frightening situation and stimulates production of stress hormones.



The activity of the amygdala is reduced when we are generous to a specific person or persons. Also, the ventral striatum, which is best known as a key part of the brain's "reward system," and is central to all achieving, learning, and loving, is stimulated when we give to someone directly. It seems the brain derives more benefits when we have direct knowledge and/or contact with the recipient of our generosity. Clicking a PayPal button doesn't have quite the same effect as going out and feeding the homeless.

### **Intention Matters**

There is a caveat to all of these benefits, though. If the generosity is trivial, meaning it has no value, or is given grudgingly, it does not have the same positive effects on your brain or your health.

With meaningful giving, or even contemplating such heartfelt generosity, you take your focus off yourself and things that may weigh you down from day to day. Writing a check in hopes of lessening your stress without thought as to where the money is going likely won't be as effective as giving from the heart.

When you're able to give part of yourself in a selfless manner, the potential windfall can be significant, and it all comes relatively easily.

## Empathy

Empathy is the ability to vicariously experience and understand another person's feelings, and just as selfless generosity has benefits to the brain, so does being empathetic.

Feeling empathy helps us connect to others, so we do not feel alone and alienated.

Research has shown that by empathizing with others, the close bonds we form help us develop healthy coping mechanisms towards stress.

On the other hand, those who have not learned to be empathetic often have “secondhand stress”, or negative emotions picked up from others without realizing it. Even if you think that taking on the emotions of others could bring you too much pain, the opposite is often true.

Compassionate people are happier and experience lower rates of depression or anxiety. They're often in better shape and have a stronger immune system, which leads to not only a happier brain but a healthier life.

How can you nurture empathy? (These tips courtesy of Goals.com)

- When talking with another person, try to listen more than you speak. Instead of planning your response while the other person's talking, think about what they're saying and how they might feel.
- Focus on similarities between you and others instead of differences. If you have trouble connecting with someone, try to think of five things you and the other person have in common.
- Read more. Research suggests that the more books we read, the stronger our capacity for empathy becomes.
- Examine any biases that might inhibit your ability to connect with others. Challenge any prejudices based on gender, age, race, or other factors that distance yourself from another person.
- Start every day by listing as many things that you're grateful for as possible. Gratitude helps us appreciate the people around us and view them with greater empathy.

