## Forgiveness and Health

Perhaps the most basic question to address first is, What is forgiveness? Though most people probably feel they know what forgiveness means, researchers differ about what actually constitutes forgiveness. I've come to believe that how we define forgiveness usually depends on context. In cases where we hope to forgive a person with whom we do not want a continuing relationship, we usually define forgiveness as reducing or eliminating resentment and motivations toward revenge. My colleagues <a href="Michael McCullough">Michael McCullough</a>, <a href="Kenneth Rachal">Kenneth Rachal</a>, and I have defined forgiveness in close relationships to include more than merely getting rid of the negative. The forgiving person becomes less motivated to retaliate against someone who offended him or her and less motivated to remain estranged from that person. Instead, he or she becomes more motivated by feelings of goodwill, despite the offender's hurtful actions. In a close relationship, we hope, forgiveness will not only move us past negative emotions, but move us toward a net positive feeling. It doesn't mean forgetting or pardoning an offense.

Unforgiveness, by contrast, seems to be a negative emotional state where an offended person maintains feelings of resentment, hostility, anger, and hatred toward the person who offended him. I began with Chris Carrier's story because it is such a clear example of forgiveness. Although he never forgot or condoned what his attacker did to him, he did replace his negative emotions and desire for retribution with feelings of care and compassion and a drive toward conciliation.

People can deal with injustices in many ways. They don't have to decide to forgive, and they don't necessarily need to change their emotions. But if they don't change their response in some way, unforgiveness can take its toll on physical, mental, relational, and even spiritual health. By contrast, new research suggests that forgiveness can benefit people's health.

In one study, Charlotte vanOyen Witvliet, a psychologist at Hope College, asked people to think about someone who had hurt, mistreated, or offended them. While they thought about this person and his or her past offense, she monitored their blood pressure, heart rate, facial muscle tension, and sweat gland activity. To ruminate on an old transgression is to practice unforgiveness. Sure enough, in Witvliet's research, when people recalled a grudge, their physical arousal soared. Their blood pressure and heart rate increased, and they sweated more. Ruminating about their grudges was stressful, and subjects found the rumination unpleasant. It made them feel angry, sad, anxious, and less in control. Witvliet also asked her subjects to try to empathize with their offenders or imagine forgiving them. When they practiced forgiveness, their physical arousal coasted downward. They showed no more of a stress reaction than normal wakefulness produces.

In my own lab, we wanted to determine whether people's stress levels are related to their ability to forgive a romantic partner. We measured levels of cortisol in the saliva of 39 people who rated their relationship as either terrific or terrible. Cortisol is a hormone that metabolizes fat for quick response to stress (and after the stress ends, deposits the fat back where it is easily accessible—around the waist). People with poor (or recently failed) relationships tended to have higher baseline levels of cortisol, and they also scored worse on a test that measures their general willingness to forgive. When they were asked to think about their relationship, they had more cortisol reactivity—that is, their stress hormone jumped. Those jumps in stress were highly correlated with their unforgiving attitudes toward their partner. People with very happy relationships were not without stresses and strains between them. But forgiving their partner's faults seemed to keep their physical stress in the normal range.

The physical benefits of forgiveness seem to increase with age, according to a recent study led by Loren Toussaint, a psychologist at Luther College, in Iowa. Toussaint—along with David Williams, Marc Musick, and Susan Everson—conducted a national survey of nearly 1,500 Americans, asking the degree to which each person practiced and experienced forgiveness (of others, of self, and even if they thought they had experienced forgiveness by God). Participants also reported on their physical and mental health. Toussaint and his colleagues found that older and middle-aged people forgave others more often than did young adults and also felt more forgiven by God. What's more, they found a significant relationship between forgiving others and positive health among middle-aged and older Americans. People over 45 years of age who had forgiven others reported greater satisfaction with their lives and were less likely to report symptoms of psychological distress, such as feelings of nervousness, restlessness, and sadness.

Why might that relationship between unforgiveness and negative health symptoms exist? Consider that hostility is a central part of unforgiveness. Hostility also has been found to be the part of type A behavior that seems to have the most pernicious health effects, such as a heightened risk of cardiovascular disease. Forsaking a grudge may also free a person from hostility and all its unhealthy consequences.

It probably isn't just hostility and stress that link unforgiveness and poor health. According to a recent review of the literature on forgiveness and health that my colleague <u>Michael Scherer</u> and I recently published, unforgiveness might compromise the immune system at many levels. For instance, our review suggests that unforgiveness might throw off the production of important hormones and even disrupt the way our cells fight off infections, bacteria, and other physical insults, such as mild periodontal disease.