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### **It's Good to be Good: Health and the Generous Heart**

The data presented here has enormous implications for how we think about human nature, the moral and spiritual life, and well-being. All significant ethical traditions denounce selfishness. “Good” across these traditions has been universally associated with other-regarding virtues and actions, and contrasted with narcissism and solipsism. Virtue is its own reward in the sense that doing good brings benefits to the actor by virtue of participating in the emotional energy of benevolence. Reciprocal gains may occur, but they cannot be counted on. Fortunately, the good life brings internal rewards to the agent that can be counted on, and these should be experienced without guilt. Generally, these rewards include greater happiness and better health. It's good to be good, and to grasp this is to know the dynamic of the human essence.

The evidence to be accumulated herein supports the following hypothesis: One of the healthiest things a person can do is to step back from self-preoccupation and self-worry, as well as from hostile and bitter emotions, and there is no more obvious way of doing this than focusing attention on helping others. This transformation of being and of doing seems to promote emotional and physical well-being, and odds are, will add some years to life. When we get started young, this transformation has life-long health benefits, but there are benefits whenever we get started, even as older adults. The experience of helping others provides meaning, a sense of self-worth, a social role, and generally enhances health.

The idea that doing “unto others” might be healthy for the giver is not entirely new. It is

an assumption in religious traditions (Neusner and Chilton, 2005), where benevolence is generally considered an essential aspect of natural law. It is touched on in a work by the great psychiatrist Hans Selye, who, while at McGill university, discovered a physiological effect that he termed “stress” in which rats subjected to the trauma of a needle shot showed high adrenaline and cortisol levels to release fatty acids into the blood for additional energy. But if prolonged, this stress response shifts from giving an energy boost to converting fatty acids into dangerous levels of cholesterol and causing atrophy of the tissues of the immune system. Publishing in the journal *Nature* in 1936, Selye later wrote his remarkable book entitled *The Stress of Life* in 1956. He believed that one way to lower daily stress levels is to help others, for this quiets stress and allows for the restoration of a healthier state. Through doing “unto others” the giver creates “feelings of accomplishment and security” as others are inspired to “love, good will and gratitude for what we have done or are likely to do in the future” (1956, p. 452). Another important book in this history of this field is that of Allan Luks (1991), who greatly developed Selye’s concept. In 1954, the remarkable Harvard sociologist Pitirim Sorokin underscored that while “hateful emotion undermine our health,” love and kindness make us happier and healthier (2002).

#### *Four Caveats*

Four caveats are obvious, and these have so colored the literature that the benefits of giving are sometimes obscured. *First*, “doing unto others” to overwhelming degrees can become stressful in itself, and will have adverse health consequences, as in the case of those family caregivers of loved ones with dementia who are unable to find respite support (Kiecolt-Glaser, 2002). Another example involves occupational altruism, as in the case of the clinician or fireman, which can include a level of stress under overwhelming circumstances that is difficult to

endure and leads to professional burnout. Thus, the American College of Physicians recommends steps to avoid physician burnout, including balance between work and family, boundary setting, and good care of the self including having fun (Maguire, 2001). The line between self-beneficial giving and self-destructive giving will be determined individually by physical and psychological variables, as well as by the agent's meaning structures and sense of higher purpose in life.

*Second*, there are altruistic individuals who are neglectful of self-care and who seem joyless. Psychoanalytic reflection suggests that such persons manifest "pseudo-altruism," which masks some underlying psychic conflict or lack of self-acceptance, and contains self-destructive elements. This "pseudo-altruism" has been differentiated from true generativity (Seelig & Rosof, 2001). I must quickly add, however, there are many passionate people who find noble causes of such great personal meaning that their capacity to give seems boundless. (I met Dame Cicely Saunders, founder of St. Christopher's Hospice, in 1999. At 83 years of age, she was still going into St. Christopher's daily to help in innumerable ways, including direct care of the dying, and proclaimed joyfully to me that "a woman with a mission never retires." Dame Cicely was a truly generous, buoyant, and emotionally radiant older adult. Her powerful sense of meaning and spiritual mission allowed her to do so much for so many.) Psycho-analytic writing has gone too far in tending to place generous lives under the rubric of "the problem of altruism," grounded in a general Freudian suspicion of altruism, and certainly of altruism beyond kin (Badcock, 1986). Alfred Adler, one of the early psychoanalysts who departed from Freud, theorized that feelings of inferiority are positively overcome by developing a wider interest in others and cultivating a sense of belonging, yet even this approach grounds altruism in self-deficits (Gearing, et al., 1988). *Third*, as feminist literature underscores, there are instances when caring for others can be manipulative, coercive, and abusive. And yet feminist ethics has maintained a strong commitment to the ethics of care, replete with such cautions (Noddings, 2003). When someone is

being manipulated, coerced or abused, that person ought to confront or flee the situation as soon as possible, for the sake of self but also because of a responsibility to teach abusers that no human being should be treated in such a manner. *Fourth*, I do not have in mind cases of noble self-sacrifice, such as the case of a teacher at Virginia Tech who stood between his students and a gunman, but I hasten to add that as he set aside self-preservation to protect his students, he died in a state of deep meaning, integrity and fulfillment. One is reminded of lines in *a Tale of Two Cities*, uttered by Sydney Carton as he sacrifices his life for others: “’Tis a far better thing I do now , than I have ever done before...”

Outside of such conditions, it is likely that generous other-regarding people will gain from giving in any area of life, whether family, friendships, neighborhoods, or beyond (Brown, et al., 2003). The best idea is to try and avoid negative emotions, and stay in a “flow” of kindness over time. Giving is an activity, but it is also a positive emotional state that shields the self from anxiety, hatred, rage, and resentment. We need to keep both positive emotions as states of “being” in mind, rather than merely “doing.” Benevolence is a fundamental affect or orientation of the whole self; at their best, beneficent actions emerge from and in turn further strengthen this way of being. We become what we do. Therefore, research on both positive psychology (Fredrickson, 2003) and benevolent actions will be considered in the discussion to follow.

### 1. Happiness

The great French Catholic Jean Vanier founded *L’Arche* (“The Ark”) nearly forty years ago. In response to the miserable conditions in institutions that warehouse persons with developmental cognitive disabilities, Vanier invited two such men to live in his home. *L’Arche* communities now exist in 120 countries, using a model in which “assistants” (both short-term and long-term volunteers) live communally in group homes taking care of “members” (persons

with disabilities). Here is one vignette sent to me by Vanier that captures the growth in an assistant named Pauline:

Just recently the mother of Pauline came to visit her daughter, a nineteen year old assistant living and working in one of our homes. Pauline has been in the home only four months. Her mother told me how her daughter has changed and been transformed. Before coming here she was unable to make choices, didn't know who she was nor wanted for the future. Now she has discovered that she is giving life to the people with disabilities around her. She is loved by them and new energies of caring and of communion are flowing from her. People with disabilities have awoken her heart and what is deepest within her: her capacity to give life and to bring joy and hope to others.

Stories like this one abound in *L'Arche*. The assistants who stay on, sometimes for many years, are the ones who experience the joy of giving most powerfully, but almost all of them report that their experiences of giving enhance their happiness (Reimer, 2007).

Dr. Albert Schweitzer once remarked, "The only ones among you who will be really happy are those who have sought and found how to serve." Happiness researchers today would concur with such a statement (Seligman, 2002). In his book on "the happiness hypothesis," Jonathan Haidt (2006), a social psychologist at the University of Virginia, discusses great ancient ideas about human flourishing – i.e., what makes for a happy and meaningful human life ([www.happinesshypothesis.com](http://www.happinesshypothesis.com)). He emphasizes Emile Durkheim's idea that the ties, bonds, and obligations of our lives are actually mentally and physically good for us, in significant part because they provide opportunities to give. This is especially so in older adults, both because of the increased social isolation of this life stage, and because giving back fits particularly well into the end-of-life story (Haidt, 2006). David G. Myers (1990), another prominent happiness researcher, defines happiness, or subjective well-being, as a lasting perception that one's life (or the current part of it) is "fulfilling, meaningful, and pleasant." Myers states: "...happiness makes

people less self-focused and more altruistic. But it works the other way around too. Doing good makes us feel good. Altruism enhances our self-esteem. It gets our eyes off ourselves, makes us less self-preoccupied, gets us closer to the unself-consciousness that characterizes the flow state (1990, p. 195). In other words, caring for others creates a psychological momentum and a sense of self-competence that makes us happier.

This applies to young people as well as old. The third of adolescents who identify their primary motive as helping others are three times happier than those who lack such motives (Magen, 1996). Thus, the Eriksonian model that places “generativity” exclusively in later life obscures the power of giving as a mode of being and doing across the lifespan. How might this link between altruism and happiness be understood neurologically? Researchers at the National Institute of Neurological Disorders and Stroke are working on a new collaborative project with the National Institute on Mental Health and the National Institute on Aging, entitled Cognitive and Emotional Health Project - The Healthy Brain. They have discovered that there is a physiological basis for the warm glow that seems often to accompany giving, even when this occurs only in the form of philanthropy. The goal of this research was to uncover the neurology of unselfish actions that reach out beyond kin to strangers. Nineteen subjects were each given money and a list of causes to which they might contribute, ranging from support for abortion to opposition to the death penalty. The functional magnetic resonance imaging (fMRI) revealed that making a donation activated the mesolimbic pathway, the brain’s reward center, that is responsible for dopamine-mediated euphoria (Moll, et al., 2006). On the genetic level, it appears that altruism is associated with the dopamine D4 receptor (Bachner-Melman, et al., 2005). 354 families with multiple siblings were administered a questionnaire on measures of selflessness – i.e., “the propensity to ignore one’s own needs and serve the needs of others.” The researchers then examined two dopaminergic genes that they believed might contribute to prosocial behavior.

They found significant multivariate associations between the Selflessness Scale and several of these dopaminergic gene polymorphisms, suggesting that “the genetic architecture of altruism in humans is partly built from genes that drive an altruistic behavioral pattern regardless of kin considerations.” In other words, “we feel good, and are rewarded by a dopamine pulse, when doing good deeds.” In short, then, research shows that when people do “unto others” in kindness that primitive part of the brain that lets us also experience pleasure through eating and having sex lights up. This is good news – giving “unto others” goes with rather than against the evolved social nature of the human.

While the dopamine connection may not fully explain the warm glow that so many people report after helping others – including fictional figures such as Ebenezer Scrooge, it provides a starting point to what is surely a complex human phenomenon. Again, for those who assert that the connection between doing good and feel good chemicals in the brain reduces altruism to selfishness, it can only be said that if one wishes to define selfishness so broadly as to include the warm glow that people feel after giving selflessly to others, then we need more of it, not less. Definitions of altruism that preclude secondary self-benefit in the form of enhanced happiness simply contradict human nature, and therefore cannot be taken seriously. The satisfaction that flows naturally from helping others, however, is certain and sufficient reward.

These comments beg a definition of altruism: *Altruism is a motivational state with the ultimate goal of enhancing another’s welfare, although joy and well-being for the agent should, consistent with human nature, follow as a consequence.* The welfare of oneself (self-fulfillment) and of others (self-sacrifice) should not be viewed as extreme opposites; they are inseparable and interrelated components of the healthy human personality in a healthy environment.

## 2. Psychological Benefits of Helping Others

In this discussion of the psychological health benefits of “doing unto others,” focus will be placed on the self-help movements “helper’s therapy principle,” volunteerism, and a prospective longitudinal study that covers the lifespan.

### *(a) Helping Others as the Real Self-Help*

The therapeutic benefits of helping others have long been recognized by everyday people. This concept was first formalized in a highly cited and often reprinted article by Frank Riessman that appeared in 1965 in *Social Work*. Riessman defined the “helper therapy” principle on the basis of his observations of various self-help groups, where helping others is deemed absolutely essential to helping oneself. These are grassroots groups that nowadays involve tens of millions of Americans. As the saying goes, “if you help someone up the hill, you get closer yourself.” Riessman observed that the act of helping another heals the helper more than the person helped. In the early 1970s, the “helper therapy” principle was noted in a few premier psychiatry journals as professional researchers found that helping others was beneficial in a variety of contexts, including among teens doing tutoring for younger children (Rogeness & Badner, 1973).

Whether the group is focused on weight loss, smoking cessation, substance abuse, alcoholism, mental illness and recovery, or countless other needs, a defining feature of the group is that people are deeply engaged in helping one another, and are in part motivated by an explicit interest in their own healing. These groups adhere to the view that people who have experienced a problem can help each other in ways that professionals cannot – i.e., with greater empathy and more self-disclosure.

The members of these groups are replacing negative emotional states with the positive state called “the helper’s high,” a pleasurable and euphoric emotional sensation of energy and warmth. The “helper’s high” was first carefully described by Allen Luks (1988). Luks, in a survey of thousands of volunteers across the United States, found that people who helped other people consistently reported better health than peers in their age group, and many stated that this health improvement began when they started to volunteer. Helpers report a distinct physical sensation associated with helping; about half report that they experienced a "high" feeling, 43 percent felt stronger and more energetic, 28 percent felt warm, 22 percent felt calmer and less depressed, 21 percent experienced greater feelings of self-worth, and 13 percent experienced fewer aches and pains.

Indeed, many state offices of mental health, including that of New York State, emphasize the role of helping others through involvement in self-help groups, recommending this activity for persons recovering from depression and schizophrenia (New York State, 2006). This kind of state initiative is reminiscent of the famous “moral treatment” era in the American asylums of the 1820s and 30s, where persons with melancholy and other ailments were treated with compassion and also, whenever possible, directly engaged in prosocial activities (Clouette & Deslandes, 1997).

My favorite example of how helping others can be incorporated in mental health recovery is the Magnolia Clubhouse community in University Circle, Cleveland. It is based on the ICCD (International Center for Clubhouse Development) Model begun by Fountain House in 1948, in New York City. There are now about 200 ICCD Clubhouses all over the U.S., and close to that number abroad. They offer training, certification, and research conferences on the ICCD model. In Cleveland, Magnolia Clubhouse is a training site for students in psychology and psychiatry,

and is loosely associated with Case Western Reserve University. Members of the Clubhouse (18 years and over) typically have significant histories of mental illness, live in the area (usually in small apartments or occasionally with family), and are referred to the Clubhouse by health professions. When they come by the Clubhouse (a large converted red brick mansion), usually in the morning or at midday, they decide on what helping activities they will engage in. As Lori D'Angelo, Ph.D., Director of Magnolia Clubhouse, responded to a question we posed about the members' helping others, "I think that people tend to be more stable and happy if they feel like they are benefiting people more than themselves, or outside themselves. It helps them feel connected to a larger picture, and I would think that of human beings in general." Members are not assigned duties, but choose the kind of helping they want to do, and to the extent they wish. Some prepare meals, serve in the snack shop, help with hospitality, write letters, handle finances, do day-to-day cleaning, outside groundskeeping, snow ploughing and the like. ICCD is a self-help program that is reminiscent of the moral treatment era. Clubhouse members, of which there are a couple of hundred at any given point in time, are treated with immense compassion by the staff and by volunteers from the community ([www.magnoliacubhouse.org](http://www.magnoliacubhouse.org)).

The oldest and largest self-help group in the United States is, of course, Alcoholics Anonymous (Alcoholics Anonymous, 1952). Researchers at Brown University Medical School (Pagano, et. al., 2004) examined the relationship between helping other alcoholics to recover (the famous 12<sup>th</sup> step) and relapse in the year following treatment. The data were derived from a prospective study called Project MATCH, which examined different treatment options for alcoholics and evaluated their efficacy in preventing relapse. Two measures of helping other alcoholics in Alcoholics Anonymous (being a sponsor and having completed the 12<sup>th</sup> step) were isolated from the data, and proportional hazards regressions were used to separate these variables

from the number of AA meetings attended during the period. The authors found that “those who were helping were significantly less likely to relapse in the year following treatment.” Among those who helped other alcoholics (8 percent of the study population), 40 percent avoided taking a drink in the year following treatment; only 22 percent of those not helping had the same outcome.

These findings around AA are especially significant because AA is a prototype organization, with offshoot organizations such as Al-Anon (for spouses of AA members), Alateen (for their children), and Narcotics Anonymous. It is widely estimated that close to 350 anonymous 12-step self-help programs exist in United States, including Overeaters Anonymous, and they help people with innumerable forms of suffering. Thus, many millions of Americans know about the 12<sup>th</sup> step through a self-help organization, but too few realize its importance to them. The pattern of one person helping another with the same problem was so central to Bill W., founder of AA, that he summed up the entire 12 steps in terms of surrender to a higher power and service to others (Bill W., 1988). Bill W. died in 1971, prominent in *Life*'s list of the 100 greatest Americans of the 20<sup>th</sup> century as the originator of the entire self-help movement in America and worldwide (*Life*, “Life’s 100 Most Important Americans of the 20<sup>th</sup> Century, No. 13:12, Fall 1990).

In a study of chronic illness, a small number of MS patients were trained to provide compassionate, unconditional positive regard for other MS sufferers through the venue of monthly supportive telephone calls 15 minutes in length. Over two years, the helpers showed “pronounced improvement in self-confidence, self-esteem, depression and role functioning” (Schwartz & Sendor, 1999). The helpers especially benefited by protection against depression

and anxiety. The researchers posit that providing peer support to others allows the helpers to break away from patterns of self-reference, allowing a shift in quality of life and personal meaning.

Individuals suffering from chronic pain experienced decreased pain intensity, levels of disability, and depression *when they began to serve* as peer volunteers for others suffering from chronic pain (Arnstein, 2002).

Since 1990, I have been most heavily involved with the Alzheimer's Association support groups for diagnosed individuals and their family caregivers (Post, 2000). In observing these groups weekly, I noted that the caregivers spent the vast majority of their time providing emotional support to other caregivers. Those diagnosed with the disease and still mildly impacted also behaved with compassion. Those involved typically report feeling refreshed and elated by the combination of the "helper therapy" activities, and by support received when the attention of the group is focused on them. Working with these groups was extremely exhilarating for me as well.

#### *(b) Volunteers and Lowered Depression*

In addition to the practice of the "helper therapy" principle that dominates the universe of self-help groups across the United States and Canada, attention has been given to the health benefits of volunteering, especially among older adults. An early study compared retirees over age 65 who volunteered with those who did not (Hunter & Lin, 1981). Volunteers scored significantly higher in life satisfaction and will to live, and had fewer symptoms of depression, anxiety, and somatization. Because there were no differences in demographic and other

background variables between the groups, the researchers concluded that volunteer activity helped explain these mental health benefits. Although non-volunteers spent more days in the hospital and were taking more medications, which may have prevented them from volunteering, the mental health benefits persisted after controlling for disability. Other studies confirm similar benefits (Lawler, et al., 2003; Liang, et al., 2001). Volunteering can provide a sense of purpose among older adults who have experienced a loss of major role identities such as being wage-earners or parents (Greenfield and Marks, 2004), and is more strongly correlated with well-being for retirees than for those who continue to hold paying jobs (Harlow and Cantor, 1996).

The mental health benefits of giving in the form of volunteerism – a wider form of giving than charitable donation, include fewer depressive symptoms. Research on volunteering and depression conducted from 1986 to 1994 with 3,617 adults aged 25 years and older assessed depression using a self-report scale. Consistent volunteering was associated with reduced depression in all age groups, and particularly in those aged 65 or older (Musick & Wilson, 2003). These results were significant after adjusting for baseline levels of depression, demographics, employment, socioeconomic status, health and functioning, health behaviors, and religious attendance.

Schwartz, et al. (2003) focused on a stratified random sample of 2016 members of the Presbyterian Church located throughout the U.S. to determine whether altruistic social behaviors were associated with better mental health. Mailed questionnaires asked subjects to evaluate giving and receiving help, prayer activities, positive and negative religious coping, and self-reported physical and mental health. Although the sample was skewed toward high physical functioning, multivariate regression analysis revealed no association between giving or receiving help and physical functioning. After adjusting for age, gender, stressful life events, income,

general health, religious coping, and asking God for healing, both helping others and receiving help were associated with lowered anxiety and depression. The authors concluded that, “helping others is associated with higher levels of mental health, above and beyond the benefits of receiving help and other known psychospiritual, stress, and demographic factors” (782). An important qualifier was that “feeling overwhelmed by others’ demands had a stronger negative relationship with mental health than helping others had a positive one” (783).

In the context of the old-old (people age 85 years or more), researchers studied 366 subjects living independently in a retirement community. After controlling for age, gender, marital status, and chronic illness, those with higher levels of altruism (determined by questions such as “I place the needs of others ahead of my own”) were happier and had fewer symptoms of depression than those who scored low in these attitudes (Kahana, et al., 2004).

The existing literature indicates that volunteering – at a level not experienced as overwhelming, does have positive impacts on happiness, mood, self-esteem, and mental health. Improved psychological states and mental health appear to emerge from altruism. Mechanisms may include reduction in maladaptive health behaviors and self-absorption, increased sense of meaning or purpose, enhanced social competence, and consequent social support.

*(c) A Lifelong Benefit for Those Who Start Young*

With regard to maladaptive social behaviors, it is well documented that volunteering in adolescence prevents teen pregnancy and academic failure, enhances social competence and self-esteem, and protects against anti-social behaviors and substance abuse (Allen, et al., 1997).

Paul Wink and Michele Dillon, in their “Do Generative Adolescents Become Healthy Older Adults?” (2007), present novel findings based on longitudinal data. Do generative qualities

in adolescents predict better mental and physical health in adulthood? The authors address this question by examining data gathered from two adolescent research cohorts first interviewed in California in the 1930s and subsequently interviewed every ten years until the late 1990s. Generativity, defined as behavior indicative of intense positive emotion extending to all humanity, was measured in three dimensions: givingness; prosocial competence; social perspective. It is thus distinguished from altruism in that generative motives for other-regarding behavior need not be entirely selfless. Using this multidimensional measure of generative behavior, the authors were able to isolate a potential mechanism underlying the generativity-health connection. The results of the study indicated that generative adolescents indeed do become both psychologically and physically healthier adults, and that this health effect is more pronounced in the psychological realm. While parental social class and religiousness were surprisingly unrelated to adolescent generative behavior, they found that positive intra-familial relationships strongly predicted generativity. Lastly, the physical health effect appears to be the result only of the prosocial competence dimension of generativity. The authors note that their measure of generativity was indistinguishable from measures of altruism. Their study lends support to the thesis that while givingness and warmth are key emotions underpinning altruism, the ability to put these emotions into practice depends upon the competence to act pro-socially. In conclusion, the authors discuss the necessary limitations of the study in terms of sample size and demographic makeup, caused by the relative homogeneity of the sample living in San Francisco's East Bay Area in the 1930s. Despite these limitations, Wink and Dillon's study lends crucial support to the notion that it is good to be good, and that the benefits of altruism accrue across the entire lifespan.

In the light of such lifespan benefits, it becomes worrisome that college students are described in one major survey as becoming more narcissistic. Sociologist Jean Twenge (2006)

and colleagues examine the responses of 16,475 college students nationwide who completed an evaluation called the Narcissistic Personality Inventory (NPI) between 1982 and 2006. This is considered a highly reliable inventory. In 2006, two-thirds of students had above-average scores, 30 percent more than in 1982. Narcissists are more likely to have short-lived romantic relationships, lack emotional warmth, and to exhibit dishonesty, over-controlling and violent behaviors. The authors trace this trend back to the self-esteem movement that began in the early 1980s, and has simply gone too far with regard to permissiveness, over-indulgence, and other cultural factors. East characterizations are rightly met with skepticism, but to extent that this report is accurate, it is cause for concern.

### 3. The Physiological Connection

#### *(a) The Hostile Heart*

In 2007 the Corporation for National Service, using health and volunteering data from the U.S. Census Bureau and the Center for Disease Control, found that states with a high volunteer rate also had lower rates of heart disease (Corporation for National Service, 2007). This is an interesting association that invites speculation. I conjecture that in states where the focus of the individual is less on the self and its worries, and more on doing “unto others,” there is lowered stress. This finding may be the reverse dynamic of the known link between emotional hostility and coronary disease. In a study that goes back to 1983, Larry Scherwitz and his researchers at the University of California analyzed the speech patterns of 160 “type A” personality subjects

(i.e., always in a hurry, *easily moved to hostility and anger*, high levels of competitiveness and ambition). His data showed that the incidence of heart attacks and other stress related illnesses was highly correlated with the level of self-references (i.e., “I”, “me”, “my”, “mine”, or “myself”) in the subject’s speech during a structured interview. High numbers of self-references significantly correlated closely with heart disease after controlling for age, blood pressure, and cholesterol (Scherwitz, 1983). The researchers suggested that patients with more severe disease were more self-focused and less other-focused. So they recommend that for a healthier heart, be more giving, listen attentively when other talk, and do things that are unselfish. There is something about being self-obsessed or self-preoccupied that seems to add to stress and stress-induced physical illness. Perhaps positive other-regarding emotions such as compassion *displace* the negative self-centered emotions that appear to have adverse consequences, and thus prevent stress-related physical harms. The connection between stress and adverse physical health is well documented (Edwards & Cooper, 1988; Sapolsky, 2004; Sternberg, 2001).

Further research on hostility and coronary disease was conducted by Redford B. Williams, the distinguished cardiologist at Duke University (Williams & Williams, 1994). It turned out that only one of the several components of Type A behavior leads to coronary artery disease - *hostility*. Williams took 50 questions pertaining to hostile emotions, attitudes, and actions from a widely used psychological test, the Minnesota Multiphasic Personality Inventory (MMPI), to form the Hostility or “Ho” Scale. Subjects respond to statements such as “someone bumps into me in a store” or “life is full of little annoyances.” Colleagues studied 255 doctors who had taken the MMPI in the late 1950s while in medical school at the University of North Carolina (UNC). As the aged from 25 to 50, the UNC doctors whose Ho scores were in the upper half were four to five times more likely than those with lower scores to develop coronary disease, and nearly seven times more likely to die of any disease. Similar results were found in

many others groups, including employees of Western Electric, who showed increased cancer deaths as well. Of UNC law students who took the MMPI in the 1950s, a fully 20% with Ho scores in the highest quarter of their class had died by age 50, in contrast with only 4% of those in the lowest quarter. Roughly the same outcome was found among medical student. Eventually, the Ho scale was refined to 27 questions about cynical mistrust of others, frequent angry feelings, and over aggressive behavior that were more predictive of higher mortality rates. Many studies using the Ho scale have converged on the conclusion that hostility is truly a health-damaging personality trait, while being in a rich and hurry is not. Moreover, a group, people with high Ho scores are also unhappy. Most researchers explain the increased mortality in hostile individuals from coronary disease and cancer on the basis of elevated stress hormones cortisol and adrenaline (also known as epinephrine) and a related lowering of the immune response, perhaps mediated by lowered serotonin levels.

*(b) Psychoneuroimmunology*

Researchers are only beginning to understand the possible mechanisms for the impact of psychological states on the body. Psychologist Corey L.M. Keyes (2007), drawing on the MIDUS survey by the MacArthur Foundation (midlife in the United States) has demonstrated that individuals who are mentally healthy have the fewest chronic physical diseases and conditions. Improved psychological states and mental health reduce distress-related wear and tear on the body, which enhances physical health through both the psychoneuroimmunologic and psychoendocrinologic pathways (McEwen, 1998). The connection between the nervous system and the immune system is now well documented in the field of psychoneuroimmunology (PNI) and behavioral endocrinology. For example, it is thought that psychological stressors impact the cellular immune response, ultimately affecting the occurrence and progression of certain tumor

types (Kiecolt-Glaser, et al., 2002). Where psychiatric interventions that enhance effective coping and reduce affective stress are provided shortly after diagnosis, they have beneficial effects on patient survival (Fawzy, et al., 1993). Stressful life events such as the death of a loved one can markedly increase the chances of becoming ill. We often hear the term that someone seemed to have “died of grief.”

Jan Kiecolt-Glaser and Ronald Glaser, of Ohio State University’s Institute for Behavioral Medicine Research (Kiecolt-Glaser, et al., 2005), demonstrated that emotional states can affect wound healing. They focused on 42 married couples who had been together for an average of 12 years. Each couple was admitted into the clinical research center for two 24-hour visits separated by a two-month interval. On each visit, husband and wife were fitted with a small suction device that created eight tiny blisters on their arms. The skin was removed from each blister, and another device was placed over each small wound to form a protective bubble from which researchers could extract fluids that typically fill such blisters. The couples filled out questionnaires that gauged their stress levels at the beginning of the experiment, and were fitted with a catheter through which blood could be drawn. During the first visit, each spouse was asked to discuss some behavior that he or she would like to change. The discussions were positive and supportive. During the second visit, each spouse was asked to talk about an area of disagreement and conflict. Both discussions were videotaped and used to gauge the level of hostility between the spouses. Fluid from the wound sites and peripheral blood samples were also taken from each spouse. The results were as follows: wounds took a day longer to heal after an argument than after initial supportive discussion; couples with high levels of hostility needed two days longer for wound healing compared to low hostility counterparts, amounting to a 40 percent decrease in healing rates; levels of one cytokine (interleukin-6) increased one-and-a-half times in hostile couples over less hostile ones. Cytokines are important in the immune response,

with elevated levels implicated in a variety of illnesses (e.g., cardiovascular disease, osteoporosis, arthritis, type-2 diabetes).

*(c) Doing “Unto Others”*

In one impressive study that began in 1956, 427 wives and mothers who lived in upstate New York were followed for 30 years by researchers at Cornell University. The researchers were able to conclude that regardless of number of children, marital status, occupation, education, or social class, those women who engaged in volunteer work to help other people at least once a week lived longer and had better physical functioning, even after adjusting for baseline health status. (Moen, et al., 1989).

In another study, volunteers who volunteered for 100 hours or more in 1998 were approximately 30% less likely to experience limitations in physical functioning when compared with nonvolunteers or those volunteering fewer hours per year, even after adjusting for smoking, exercise, social connections, paid employment, health status, baseline functional limitations, socioeconomic status, and demographics (Luoh and Herzog, 2002). In a third example, after making all the same adjustments, researchers who analyzed data from 1,500 adults between 1986 and 1994, and found that volunteering predicted less functional disability 3 to 5 years later (Morrow-Howell, et al., 2003).

Strikingly, *just thinking about giving* seems to have a physiological impact. In the 1980s, the renowned Harvard behavioral psychologist David McClelland discovered that Harvard students who were simply asked to watch a film about Mother Teresa’s work tending to orphans in Calcutta – a manifestation of profound compassion - showed significant increases in the

protective antibody salivary immunoglobulin A (S-IgA), when compared with those watching a neutral film. McClelland termed this the “Mother Teresa Effect.” Moreover, S-IgA remained high for an hour after the film in those subjects who were asked to focus their minds on times when they had loved or been loved. Thus, “dwelling on love” strengthened the immune system (McClelland, et al., 1988, p. 345).

Research conducted at the University of Miami School of Medicine compared the effects of elder retired volunteers giving massages to infants with receiving massages themselves. Immediately after the first- and last-day sessions of giving massages, the volunteers had less anxiety and depression and lower stress hormones (salivary cortisol, plasma cortisol, and norepinephrine). These effects were not as strong when the volunteers received massages (Field, et al., 1998).

Ironson and colleagues (2002), also at the University of Miami, compared the characteristics of long-term survivors with AIDS (n=79) with an HIV-positive comparison group equivalent (based on CD4 count) that had been diagnosed for a relatively shorter time (n=200). These investigators found that survivors were significantly more likely to be spiritual or religious. The effect of spirituality/religiousness on survival, however, was mediated by “helping others with HIV.” Thus, helping others (altruism) accounted for a significant part of the relationship between spirituality/religiousness and long-term survival in this study. More recently, Ironson’s research team has discovered that altruism, as measured by a personality questionnaire (the NEO-PI-R) given to persons with HIV, is significantly related to lower levels of the stress hormones cortisol and norepinephrine (Ironson, et al., 2007).

At the Duke University Heart Center Patient Support Program, researchers concluded that former cardiac patients who make regular visits to help inpatient cardiac patients have a

heightened sense of purpose, and reduced despair and depression, which are linked to mortality (Sullivan & Sullivan, 1997). The Corporation for National & Community Service, which provides two million Americans of all ages and backgrounds with volunteer opportunities through Senior Corps, AmeriCorps, and Learn and Serve America, conducted a study using health and volunteering data from the U.S. Census Bureau and the Center for Disease Control. *It found that states with high volunteer rates also have lower rates of mortality and incidences of heart disease* (Corporation for National Service, 2007). These findings resonate with those of Robert Putnam, who in his study *Bowling Alone* found a strong correlation between level of social capital and good health (2000).

One study that has impressed the research community was begun by David Spiegel of Stanford University. He randomly assigned women with advanced metastatic breast cancer to either routine care or routine care plus a cancer patient support group, which provided a safe and caring setting for discussion of issues. Spiegel only expected that the support group would enhance patients' mood, but not survival. As it turned out, the women in the support group survived twice as long (18 months compared with nine months) as the women without support (Spiegel, et al., 1989). If one recognizes participation in a support group as including an immense amount of giving to others, mainly through attentive listening and compassion, as well as receiving support, a study such as this also points toward the benefits of helping others.

#### 4. Mortality Reduction and Volunteerism as a Measure of Physical Health

To provide a context for the mortality and volunteerism studies described below, it is useful to bear in mind the dramatic impact of hostility on mortality. As pointed out above, 20

percent of the lawyers and doctors with high hostility had died by age 50 (Williams & Williams, 1994). Williams recommended forgiveness, volunteerism, and listening to others as among the techniques to lower hostility. Negative emotions, it seems, are like a slow-acting poison that catch up with us in the end. There is an antidote to this poison – positive emotions such as kindness and compassion, and giving. Williams specifically suggested that altruism may enhance longevity by enlarging empathic capacities and reducing isolation. This prescription echoes that of Allan Luks, in his quite remarkable book entitled *The Healing Power of Doing Good* (1991). Luks recommends helping others in situations that include personal contact with those helped, two hours a week of one-to-one caring, use of the helper's skill set, and exertion of self that involves reaching out emotionally or physically. He also suggests that the helper forget about any expected benefits. In essence, as Williams prescribes (Williams & Williams 1994), “seek those activities in your community that interest you most and also fit your level of commitment. Be as realistic as you can; stretch a bit, but you will gain little by volunteering more time than you can realistically spare or by exposing yourself to a group you are deeply turned off by or deeply afraid of” (p. 133).

It may also be useful to bear in mind the remarkable studies on mortality reduction and positive emotions such as kindness and tranquility involves the School Sisters of Notre Dame and the careful collection of systematic longitudinal data by the Nun Study. This study facilitated an examination of the relationship between autobiographical writings completed at a young age and longevity (Danner, Snowdon & Friesen, 2001). Sisters who used the greatest number of positive emotion words in their entrance essays as young women lived 6 to 10 years longer than those using the fewest emotion words. The nuns were an ideal population to study this hypothesis because they all had similar diets, housing, and professional responsibilities. This suggests that emotional states over the course of a lifetime can have significant impact on health

and mortality.

Perhaps to add a little more evidence for the relationship between giving and longevity, a study going back to 1976 is suggestive. Nursing home residents were given more responsibility generally for everyday decision making, and were also able to pick out and care for a plant for their room, rather than having the nurses do this. The control group did not have this increased responsibility. The health improved among the plant caring subjects, as assessed by doctors who were unaware of the study. In addition, the death rate among the subjects was half that of the control group (Rodin and Langer, 1976).

Altruism, as expressed in volunteering, is associated with substantial reduction in mortality rates, even after differences in socioeconomic status, prior health status, smoking, social support and physical activity are accounted for. In a large prospective study using a longitudinal survey of older adults, authors from the Buck Center for Research and Aging and Berkeley University tested the hypothesis that volunteerism may reduce mortality risk (Oman, D., et al. 1999). After adjusting for multiple covariables, the authors found that volunteering was significantly associated with reduced mortality. These results could only be partly explained by health habits, physical functioning, and social integration and support. The study population included 2,025 community-dwelling residents of Marin County, California. All participants were 55 years or older at the time of the first interview in 1990-91; 95 percent were non-Hispanic white, and 58 percent were female. The amount of volunteering was measured by the total number of organizations for which the participants volunteered. High volunteerism was defined as involvement with two or more organizations. Moderate volunteerism was defined as involvement with only one organization. *The median number of hours volunteered per week was four, and participants were dichotomized into less than or more than four hours a week. Co-*

variables included physical health and functioning status (chronic diseases, self-reported functioning, observed physical performance measures, etc.), health habits (exercise, amount of sleep, alcohol and smoking habits, Body Mass Index, etc.), socio-demographic factors (income, years of education, employment status, ethnic group), social functioning and support (marital status, religious service attendance, living arrangements, social activity attendance, etc.), and psychological variables (East Boston Memory test, self-rated mental health, etc.). Mortality was measured using local obituaries and attempts at re-interview. The National Death Index was consulted for the period from the first interview in 1990-1 to the end of the second examination in November 1995.

The main results were that high volunteers had the lowest mortality rate for both genders ( $p < .02$ ). The older the people were, the greater the difference in mortality rate between non-volunteers and volunteers. For women, the highest mortality rate was among non-volunteers, and there was a near linear trend from non, to moderate, to high volunteerism. There was a threshold effect among men for high volunteers versus moderate to non-volunteers. A statistically significant association between high volunteerism and decreased mortality rate remained after correction for health status, resulting *in an overall 44% reduction in mortality*. When volunteering was dichotomously coded, it remained significantly protective after controlling for baseline health, chronic conditions, health habits, and socioeconomic variables.

Oman (2007) research over a decade has focused on volunteering through a formal organization, and thus does not treat informal helping behavior. He argues that the physical benefits of volunteerism are not attributable to the volunteer's being more physically active because many forms of volunteerism do not have a physical component; that there are health benefits for paid workers, but volunteering is free from the stress and pressures of the work

environment, generally involves more meaning, and has unique benefits associated with a clearer altruistic grounding; that prior health status as well as social support and other identifiable variables are well adjusted for. Oman's research shows that the benefits of volunteerism are consistently complimented by a reframing of life's purposes, and that there is a related synergy between volunteering and religious involvement that provides more health benefits than either alone. In other words, a deep sense of the meaning of doing "unto others" adds benefits to volunteering.

In a study (Harris & Thoresen, 2005) from the Center for Health Care Evaluation and Stanford University, the researchers used a large national sample of older adults from the Longitudinal Study of Aging (LSOA) to test their hypothesis that frequent volunteering is associated with decreased mortality risk when the effects of socio-demographics, medical status, physical activity, and social integration are controlled. They found support for their hypothesis. This retrospective study used a nationally representative sample (n= 7,527) of community-dwelling older people ( $\geq 70$  years). Volunteering data were available on 7,496 respondents. Mean age (SD) was 76.8 (5.60) years, and the sample was 62.1 percent female. Participants were asked if they had engaged in different forms of volunteer work in the past 12 months, and if so, how frequently. Covariates included socio-demographic variables (age group, sex, income, ethnic group, years of education, etc.), health (self-reported health, Body Mass Index, medical history items, etc.), physical activity (exercise levels), and social functioning and support (marriage, living arrangements, frequency of social activities, church or temple attendance etc.). Mortality information was obtained from death certificates in the National Death Index. Survival times were calculated to the nearest month for those who died between January 1984 and December 1991 (n= 2866). The remaining participants were presumed to be alive at the end of the 96-month screening period. When health and disability variables were included, those who

sometimes volunteered had a 25 percent reduction in mortality risk, and those who frequently volunteered had a 33 percent reduction. When physical activity variables were included, those who sometimes volunteered had a 23 percent reduction in mortality risk, and those who frequently volunteered had a 31 percent reduction. When social functioning and support variables were included, there was a 19 percent reduction in mortality for those who volunteered frequently. The authors conclude, “We found that more frequent volunteering is associated with delayed mortality even when the effects of socio-demographics, medical and disability characteristics, self-ratings of physical activity and social integration and support are controlled. The effect of volunteering on mortality appears to be more than a proxy for the well-known effects of social support, health, age, and other variables.”

Volunteerism is good for volunteers. It is important to develop programs that sustain volunteerism in older adults. As it turns out, new research from the Corporation for National & Community Service (2007) indicates that older adults who volunteer in ways that involve mentoring of young people are much more likely to stay engaged with this activity. 87% of volunteers who mentor perform at least one other volunteer activity, while only 40% who are not involved in mentoring do so ([www.nationalservice.gov](http://www.nationalservice.gov)).

Brown, et al. (2003) at the University of Michigan performed a prospective analysis of a longitudinal survey of older married couples from the Changing Lives of Older Couples (CLOC) sample to answer two questions: (1) what is the relative contribution of providing social support to the beneficial effects of social support on health? (2) does receiving support influence mortality if the effects of giving support and dependence are controlled? This was a prospective study of a longitudinal survey of older married adults in the Detroit Standard Metropolitan Statistical Area. The Changing Lives of Older Couples sample included 1,532 married

individuals, with data collected in the late 1980's and early 1990's, and focuses on those survey questions that indicate giving and helping others. The Brown study used 423 married couples for whom mortality data on both members were available. The study revealed that no matter how measures of giving support were operationalized, they were associated with decreased mortality risk; this was not the case for receiving support. Giving instrumental support to others (GISO) was measured by four survey questions about providing child care, transportation, errands, and shopping for friends, family, and neighbors in the past 12 months. Receiving instrumental support from others (RISO) was measured by a single question that asked whether the couple felt they could count on support if they needed it. The analysis of additional measures of giving and receiving support revealed that only one of the 10 different measures of receiving support was significantly associated with decreased mortality risk; however, all four of the measures of giving support significantly reduced mortality risk. The researchers conclude, "In this study, older adults who reported giving support to others had a reduced risk of mortality. The provision of support was correlated with reduced mortality in all analyses, whether giving support was operationalized as instrumental support provided to neighbors, friends, and relatives or as emotional support provided to a spouse." Moreover, they concluded that, "If giving, rather than receiving, promotes longevity, then interventions that are currently designed to help people feel supported may need to be redesigned so that the emphasis is on what people do to help others" (Brown, et al., 2003, p. 326).

Brown's research (2007) builds on the now uncontroversial claim that socially connected people outlive isolated people (House, et al., 1988). The question she asks is how and why this social connectedness enhances longevity. Brown challenges the assumption that people form relationships merely because they need things from others, for this assumes selfishness. Her study finds a 20 percent reduction in risk of death due to social connectedness, and finds that the

effects of giving to others overwhelm the effects of receiving help from others. What it is about giving that is so protective? Brown argues that giving buffers stress, and involves complex hormones such as oxytocin and vasopressin, as well as a brain-emotion-immune nexus. In contrast to Oman's research, which focuses on formal volunteering, Brown's work focuses on informal helping behavior in the various areas of life.

## 5. Causality

Skeptics will appropriately raise the question of cause and effect – i.e, is doing “unto others” causing psychological and physical benefits, or is it just the case that healthier people are able to engage in helping behaviors? Many studies described herein assert that helping others is causal. Helping behavior appears causative, for example, in a study of data from the *Americans' Changing Lives Survey*, which found that those who volunteered in 1986 reported in 1989 that they had higher levels of happiness, life-satisfaction, self-esteem, physical health, and lower rates of depression than non-volunteers (Thoits and Hewitt, 2001). An analysis of the *Assets and Health Dynamics Among the Oldest Old Study* found that persons 70 years of age or older who volunteered at least 100 hours during 1993 has less decline in self-reported health and functioning, and lower levels of depression and mortality in 2000, when compared with those who did not volunteer (Lum & Lightfoot, 2005). An additional study of this data set found a correlation between volunteering in 1998 and better health and lower mortality in 2000 among older adults born before 1923, *after* controlling for previous health conditions, when compared to non-volunteers. People who volunteered for at least 100 hours annually were two-thirds as likely to report bad health, and one-third as likely to die (Luoh & Herzog, 2002). These data suggest

that there is *not* a linear relationship between the extent of volunteering and health benefits – i.e., more volunteering does not necessarily translate into greater benefits. But there is a “volunteering threshold” that is necessary for health benefits, and once that threshold is reached (est. 2 hours per week) no additional benefits are acquired. Much less than 100 hours per year seemed to result in no benefits, and much more than that does not add benefits beyond the 100-hour baseline. Yet I am skeptical of much precision in defining this threshold because of individual heterogeneity and meaning structures.

The argument that people who are depressed tend not to volunteer, and that therefore the psychological benefits of volunteering really reflect the more elevated prior condition of the volunteer are not compelling. While depression may be a barrier to volunteering in some cases, it is actually a *catalyst* for volunteering in older adults, who engage in such behaviors to offset the depression associated with role losses and loss of relationships (Li and Ferraro, 2006; Van Willigen, 2000). Older adults who volunteered in 1986 had lower rates of depression in 1994 (Musick and Wilson, 2003).

At the outset of this paper, I stated that scientists look for the convergence of different methods in support of a hypothesis. The reader will now hopefully find it difficult to dismiss the idea that it's good to be good. Helping others is good for health (Piliavin, 2003). The right dose and method and context will vary from person to person, and no detailed prescriptions can cover human heterogeneity. But the principle is, at least, established.

The benefit may be explained in part by the simple fact that it is easier to get one's mind off problems and losses in life by helping others. Altruism is a terrific coping mechanism, and many who have lost loved ones to illness or catastrophe become actively engaged as supporters and activists in voluntary associations related to the lost family member or friend.

Positive emotions, such as compassion and care, displace negative ones, such as hostility, rumination, resentment and fear. With the exception of the field of psychosomatics, Western science since the Enlightenment has considered mind and body as unrelated. Today there are few informed people who do not appreciate the connection between mind and body, and between emotional and physical health. The immune and nervous systems communicate with each other, establishing a clear relationship between emotions and disease (Sternberg 2001). In response to stressful emotions such as rage or anger, the body secretes hormones that prepare it for physical exertion; stress hormones make the heart and lung work faster, tighten muscles, slow digestion, and elevate blood pressure. This is a good thing in short bursts to deal with perilous circumstances. But when the body steps on this accelerator in a continuous response to the constant pressures and anxieties of today's world, depression is more likely and physical illnesses can easily result from lowered immune resistance.

Psychiatric diseases linked to long-term stress include anxiety, panic attacks, post-traumatic stress disorder, phobias and depression. Perpetual stressful emotions are like acid searing metal, while positive ones can promote health and healing. Chronic stress has been linked heart and vascular system disease, gastrointestinal conditions, headaches, skin conditions, chest infections, and fatigue, among others. Positive emotional states do have a marked physiological impact if only by virtue of displacing negative ones. Inner peace, loving relationships, simple joys, serving others, attentive listening, compassion, and tranquility somehow link together in forming a buffer against a life where the emotional pot of hostility, ill will, rage, anger, and cynicism is always boiling. When we are emotionally caring and connected in giving behaviors, the negative emotions are displaced by positive ones. The results, as indicated by various measures of stress hormones and immune antibodies are relatively well established – it's good to be good, and science says it's so.

Altruistic activities are associated with better care of the self. Adolescent generativity (as present in the lives of a subset of adolescents decades ago) predicted reports of feeling satisfied with life, being peaceful and happy, having good mental health, and not being depressed as older adult. The researchers indicate that one important mechanism involved is adolescent prosocial competence, which results in a lifetime of sound judgments, choices and habits. The generative adolescents tended not to be smokers or excessive drinkers (Wink & Dillon, 2007).

So then what kind of creatures are we? The association between a kind, generous way of life and health-prolongevity can be interpreted in the light of evolutionary psychology. While it is not appropriate here to make a full case for evolutionary altruism, it can be asserted that group selection theory predicts a powerfully adaptive connection between widely diffuse altruism within groups and group survival (Sober & Wilson, 1998). Members of a successful group would likely be innately oriented to other-regarding behaviors. Anthropologists point out that early egalitarian societies practiced institutionalized or “ecological altruism,” where helping others was a social norm, and not an act of volunteerism. There appears to be a fundamental human drive toward other-regarding actions. When this drive is inhibited, the human being does not thrive. Evolution suggests that human nature evolved emotionally and behaviorally in a manner that confers health benefits to benevolent love and helping behaviors. We seem to prosper under the canopy of positive emotions. These emotions have value to the group in its competition against other groups. Based on preliminary data, it seems that our immune and endocrine systems reflect this evolutionary strategy.

Some may question this discussion on the basis of arguments about causality. Have we put the cart before the horse? If someone is depressed or physically disabled due to illness, it is certainly less likely that he/she will engage in helping behaviors. This may partially explain the

better health of altruists. Health is controlled for in many of the studies cited in this article, and there is still a significant reduction in mortality among those who give to others. It would thus be reductive to dismiss the causative potential of unselfish love and benevolent actions. It is much more likely that causality simultaneously exists in both directions, for we are social beings involved in giving and receiving. The argument for causality is plausible in the sense that positive emotions displace negative ones and switch off the fight-flight response. Unselfish love and kindness, including manifestations such as forgiveness, displace emotional states such as rage, bitterness, loneliness, and hatred, all of which cause stress and stress-related illness through adverse impact on immune function (Fredrickson, 2003; Lawler, et al., 2003; Sternberg, 2001).

The evidence is quite consistent that altruism, so long as it is not experienced as overwhelming, is associated with happiness, psychological and mental health, better self-rated physical health and functioning, and (on average) longer life, after adjusting for the standard set of potential confounding variables. We know from the 2006 General Social Survey, in which 27,000 adults were questioned about job satisfaction and general happiness, that those with jobs that involve helping or serving others are more satisfied with their work and happier than those whose jobs do not permit altruistic gratification (Smith, 2007). The precise correct dose and features of altruism remain vague, in large part because every individual is unique psychologically, physically, socially and spiritually. And not all givers benefit equally.

## 6. Concluding Connects Between Science and Religion

The idea that giving “unto others” is, with certain qualifications, good for the giver, is not news in the sense that it echoes perennial moral and spiritual wisdom. Key spiritual and religious texts have long acknowledged the benefits of giving. Although hypocrisy is present in the

religious communities, generally speaking religious people are more generous and likely to volunteer than are non-religious (Saroglou et al., 2005). This enhanced altruism may explain any greater average longevity among regular worshippers.

Ralph Waldo Emerson, in his famous essay on the topic of compensation, wrote, “It is one of the most beautiful compensations of this life that no man can sincerely try to help another without helping himself...” The 16<sup>th</sup>-century Hindu poet Tulsidas, as translated by Mohandas K. Gandhi, wrote, “This and this alone is true religion – to serve others. This is sin above all other sin – to harm others. In service to others is happiness. In selfishness is misery and pain.” The 9<sup>th</sup>-century sage Shantideva wrote, “All the joy the world contains has come through wishing the happiness of others.” *Proverbs* 11:15 reads, “those who refresh others will be refreshed.” Martin Buber described the moral transformation of shifting from “I-It” to “I-Thou,” from a life centered on self as the center of the universe around whom, like the sun, all others revolve. This “I” relates to others only as means to its own ends. But the spiritual and moral self of “I-Thou” discovers “the other as other,” and relates to them in compassion and respect. There is still an “I” of course, but a deeper and better I; science now shows a happier and healthier “I” as well. Every major religion recommends the discovery of a deeper and more profound human nature, designated in various ways as the “true self.” In *Acts* 20, we find the words, “’Tis better to give than to receive,” and these echo down into the *Prayer of St. Francis*. Now science says it’s so.

And it is perhaps here that the most meaningful exchange between science and religious thought should occur. For we can no longer afford to believe that we will find happiness and health through self-obsession. Selfishness and greed are not a good way to care for the self, while compassion and doing “unto others” seem to be the successful strategy. In extreme cases,

however, self-preservation and love of neighbor can be in conflict, and it is here where real loss to the self comes into play and here that the extent of love for another is measured.

For a moment, I wish to draw attention to medical ethics. At a time when there are synthetic compounds that tap into the same brain chemistry that giving does, it may seem that we are perhaps substituting happiness pills for the happiness that flows from pro-social opportunities and more authentic community. This is not all bad, but it is not all good. Perhaps psychiatry can do more to encourage happiness through pro-social means, but this will require significant social change that would involve a wider social commitment to institutional modifications.

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