Altruism: Biological Rationale vs. Christian Love Command

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The idea of altruism and self-sacrifice appears counter to a simple view of evolution. While a "survival of the fittest" mindset occurs in some Darwinian views, there are counter-examples of animals and humans with cooperative, pro-social, and even self-sacrificial behavior. Social animals such as bees and ants work for the community and provide for the queen due to a haploid-diploid system of genetic relatedness. Some humans sacrifice their lives and money to promote the well-being of others even without genetic relatedness and, rarely, without reciprocity. We will explore why human animals often help people who are less fortunate by giving away financial and time resources. Such behaviors appear to violate natural law. A further complication in human behavior is the "do unto others" teaching in several religions including the Christian love command.

In this discussion we will distinguish between biological altruism (mere reciprocity) that is programmed within us and the sacrificial altruism that comes through Christian faith. We will first examine the biological rationale for "altruistic" acts (actually reciprocity or kin selection). Then, we will explore altruism as it pertains specifically to humans: why altruism occurs; boundaries of Christian love and biological altruism; an understanding of love's role in altruism; and how altruism can be seen in regards to the medical field.

No person is lacking in the ability to perform altruistically; however, some may be more inclined due to predisposition but informed by various social factors. The premise of Christianity is that Christ showed such great love for the world, that it should be passed on. Rather than the fulfillment of one's desires, individuals are encouraged to perform sacrificial altruistic acts. *Properly followed*, Christianity is the deep understanding of love for others.

Biological altruism is behavior that benefits one organism at some reproductive cost to oneself. It should be called cooperation, however, if there is no net reproductive cost to either oneself or to one's genetic contribution within the population. Altruism goes further; it entails the motivation of self-sacrificial concern for the welfare of others. In contrast with mutualistic behavior, however, even cooperation seems more 'altruistic' due to the time delay of receiving a benefit. In mutualism, both the giver and receiver benefit throughout the interaction.

When discussing the benefits and costs in biological altruism it is important to define exactly what is being gained or lost. Biologically, the key end is reproductive fitness. In biological terms, for a truly altruistic act to occur, one would have to enhance another's reproductive success at the expense of one's own fecundity.¹

Originally, scientists thought altruism evolved due to group selection. Groups that consisted of individuals who helped each

Biological 'Altruism'

¹ Okasha, 2003.

other out did better than groups that consisted of all selfish individuals. This behavior was thought to allow the altruistic group to be more reproductively fit and ultimately outcompete the selfish group. However, complications arise when a lone 'free rider' (an individual who cheats and does not perform altruistically) exploits the group. This individual acts almost parasitically within the group and ultimately out-survives its peers to pass on its 'selfish' gene to subsequent generations. An exploration of situations such as these and others in the animal kingdom led to the current understanding of kin selection, inclusive fitness, and reciprocity (incorrectly referred to as reciprocal 'altruism').

Kin selection and inclusive fitness are the predominate theories that can explain most cooperative or 'altruistic' behaviors in nature. These theories are similar to group selection but with one difference, the cooperator in this situation only gives to individuals that are members of its family or kin. This means their 'altruistic' behaviors are passed on from generation to generation within the group. While part of what controls this pro-social behavior is genetic, the social aspect that plays into it should not be forgotten. Both factors, social and genetic, combine to help such cooperative behaviors to pass from generation to generation and influence current organismal behavior. Organisms behave cooperatively with others who share their genes. Examples often offered include vampire bats and social insects; respectively, the community as a whole either shares resources within the group or works together to provide for the reproductive fitness through a single queen. As the group grows and thrives, it is easy to see how these behaviors pass on to future generations.

With these examples it is difficult to see any indication of an animal acting in a purely self-sacrificial way where no benefit occurs whatsoever. Where natural systems appear to involve actual altruism is in the case of animals taking care of nonrelated organisms. Removing parasites from a nonrelated organism is sometimes thought to be an example until we realize that a food benefit occurs (e.g. cleaner shrimp removing parasites from fish); or, as in many apes and monkeys, an expectation of return is involved. Most of the primate examples fall into the category of 'you scratch my back, I'll scratch yours, someday.' These organisms take a calculated loss, fully expecting the favor to be returned. This type of 'altruism' does not allow cheaters because participants remember who failed to 'return the favor' and ostracize or refuse to groom them. This cooperation and reciprocity (often, incorrectly, called altruism) has two requirements: to interact multiple times with the same organism, and to be able to remember that organism and punish the freeloaders. This action is mere reciprocity, not altruism: something is expected in return.

The question that remains is if any action is actually altruism. Are there any examples of actions that are truly self-sacrificial? Or is all 'altruism' really selfishness in disguise? The situations described so far do not involve an organism truly sacrificing anything at the genetic level. Inclusive fitness is merely extending ones genetic lineage, rather than actually making a sacrifice. Reciprocal 'altruism' is merely a helping or cooperative behavior, expecting the favor will be returned sometime. In fact, it should never have been labeled as a form of altruism in first place when it is nothing more than reciprocity.²

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² Brannan and Gillet, 2005.

Human Altruism?

So, where do humans fit in with altruism? There are times where humans do follow the models defined above, such as performing helpful acts for our family or doing an act to gain something. However, there are also times where we diverge from the models mentioned. Altruistic acts come about through a subconscious act of setting certain affection as a priority. There is the affection for advantage and the affection for justice. How these two affections are ranked impacts the way an individual acts towards themselves or others.

Our affection for justice is what distinguishes us from other creatures. In fact, "if we had merely the affection for advantage, like nonhuman animals, we would not be free, because we would pursue our own advantage by necessity."3 It is the instinctual feeling that fuels natural selection and relates more to egoism as opposed to altruism. However, the definition of egoism is only relevant when affection for justice is introduced. Because humans have a sense of morality, our eyes are opened to our impact on the life of others. Justice complicates things by making one believe that there could be just as much worth in another as there is in them. It is because of this that humans can be inclined to perform altruistic acts, acts that are selfless and concern the well-being of others. The question arises, if altruism is specific to humans, what inclines a human to perform an altruistic act?

One simplistic study specifically examined the demographics of blood and organ donations as an indicator of who may perform altruistically.⁴ The study took into account age, gender, income, race, and several other items to see who might be more willing to sacrifice themselves based

on the likelihood of blood/organ donation. The data showed that some people were more inclined than others to give blood or organs: the individual most likely was a "male, Caucasian Norwegian, employed and educated trauma surgeon, who is religious, financially successful, has lived in his affluent home for more than ten years, located in an area with low ethnic diversity and is at least 45 years old." While this 'tongue-in cheek' conclusion is not entirely valid, it does bring about an interesting heuristic point. The person designated seems to be an individual who is content and has lived a life of fulfillment. This is in contrast, however, with studies indicating that lower socioeconomic classes are more generous.⁵

However, the self-sacrificial nature of altruism requires something more. It is perhaps synonymous with the way in which God asks His people to act in the world. The Christian perspective, for some, may uniquely provide a sense of fulfillment; but likewise, individuals from stable social and other spiritual backgrounds may derive the same benefit. Thus, it is not faith directly that causes pro-sociality. Rather, good deeds come about in part by a sense of fulfillment in one's life that subconsciously encourages them to give back to the world. We still have not reached self-sacrifice. Nevertheless, the nature of Christianity in its entirety is to love, like Christ loved: emptying oneself for the greater good.

Perhaps we can find it within the story of the Good Samaritan. Despite being enemies with the man he helped, the Samaritan demonstrates affection for justice by aiding the unknown man. While it is a great example of showing love in the world, it is also an example of how even the non-religious exhibit altruism. This man was not

³ Hare, 2004, p. 187-203.

⁴ Morgan, 2012.

⁵ Piff, et. al., 2010

a proper Jew; in fact the proper Jews, a priest and a Levite, both passed and left the man for dead. So despite the priest and Levite being seemingly 'one with God,' it was not the religious that acted, but the heart of a nonreligious man. Did the priest and Levite not feel comfort or fulfillment in their lives and so were not as inclined to act? Were these men not high-ranking public officials? Were they not respected by others for their seeming oneness with God? No, they simply did not understand love or have an affection for justice. They segregated themselves from the man and were not willing to assign him human qualities.

If one cannot see eye to eye with every other human, then there is no need to justify helping that person. This is a common tale repeated historically, as in the egregious example of Social Darwinism (it should be Spencerism) and eugenics.⁶ It is an idea that ignores the affection for justice and reduces human society to nothing more than an animalistic survival of the fittest. The Nazi justification for killing Jews was because they were seen as inferior. Perhaps fulfillment is a secondary input for altruism; maybe the primary input for altruism is having an understanding of love.

To love someone requires cooperation, trust and a willingness to forgive that person. In some instances, love is seeing the gain of another as your own, a give-gain-gain scenario. To explain what is meant by love, rather than love just being a feeling or emotion, requires something deeper that is instilled within humans. It is a base upon which the desire to perform altruistic acts could build; it is a base such as empathy. One can watch news of a devastating hurricane that destroys an entire city and have a desire to help, but it would not be the

emotion of love for victims that provides the motivation to actually do something to help. Upon the base of love there is a desire for justice, from that there is a base for altruistic love ... if the person acts. So while love is seeing the gain of another as your own, that is just the base to being inclined towards altruism. It seems like altruism would be incompatible with this idea of love; however, because it is being viewed as foundational, rather than emotional, it encourages self-sacrifice.

The altruistic cases that are difficult to explain are the ones that occur between complete strangers. The one performing the act is building on the base of the love they have for humanity in general. Love is bigger than what is described between two people. Love, on a broader scale, is seeing the general good of society playing out and feeling better about that than one's own benefit. If love is viewed from this perspective it is able to explain an altruistic act at the expense of the giver. If the first, give-gain-gain, idea were used, the loss would not outweigh the gain and it would not make sense. It is difficult to say that there was any personal gain for the man who sacrificed himself in the lifeboat situation, but there was gain knowing that the good of humanity was furthered; the sacrificed man understands that.

Can Healthcare Providers be Altruistic?

Healthcare is fulfilling, but is it the fulfillment that motivates workers or is it a desire to show love? It is nearly impossible to enter the medical field without being asked, why medicine? The answer to the question of why is nearly always, 'I want to help people.' This fairly standard answer demonstrates an individual's altruism or affection for justice; secondary to the prime

⁶ Bergman, 1999, p.101-111.

⁷ Coakley & Nowak, p. 11.

⁸ Post, 2002, p. 20.

answer is often an affection for advantage answer. After all, it pays the bills. However, the secondary answer is often unstated or avoided due to a possible evaluation of whether it is actually the primary objective. This contrast illustrates two hindrances for altruistic action in healthcare: burnout and the economics of healthcare. A health professional may continue to work or provide informal medical advice outside contracted hours, provide free treatment to poor patients in fee for service healthcare systems, or they may have a general willingness to go the extra mile in their professional activities.9 However, it is known that often these things are hard to do because "life" just gets in the way.

Healthcare professionals may begin their careers with strong altruistic beliefs but they will experience burnout due to heavier workload or other workplace pressures. ¹⁰ If one is not constantly encouraged to act in an altruistic manner, then pressures can add and lead to burnout. The power that money has within healthcare is tremendous; money allows things to be done, whether it is payment for an everyday operation or when a physician uses funds to go on a medical mission trip.

In healthcare, as with all professions, there are ethical and unethical people. With that said, in a field where people want to help others and act in an altruistic way, how does one deal with payment? Thus it may be that altruism may be fundamentally incompatible with the culture of medicine and the current financial incentives of health care. Striving to achieve such an incompatible goal may in fact contribute to the occurrence of work-life imbalance and overall career dissatisfaction.

The positive news is that it is all very subjective to the person. There is a recipe between market incentive and altruistic behavior that promotes an ideal healthcare system. However, is market incentive not selfish gain and therefore the opposite of acting altruistically? As mentioned before, both fulfillment and love play into ones inclination to perform an altruistic act. Beyond altruistic behavior, humans are naturally more inclined to act out of selfinterest. 11 Out of this self-interest comes stability, and out of stability come fulfillment and quite possibly a tendency towards acting altruistically. Love must be combined with this or else the system can fall very quickly. If the physician or nurse lacks the base of love, then it will be very easy for them when they experience burnout to be consumed by self-interest. Time and time again a decline in altruistic attitudes from 1st year to 4th year medical students have been observed. So there is an absolute need to establish a base of love within individuals going into healthcare, or nourish the base throughout ones career. 12 Likewise, medical professionals should be encouraged and rewarded for their services or else they can experience burnout, as mentioned prior. It is possible for healthcare workers to set their hearts right, and as Christians we are called to do that in the first place.

Conclusion

An understanding of love and a sense of fulfillment both contribute to being inclined towards altruism. The greater of these is love. You can be poor, but understand love and demonstrate a powerful act of altruism, as did seventy-seven year old homeless man Ed Denst, who gave \$250 to the Society of Saint Vincent de Paul Council in Los Angeles. ¹³ Ultimately, true altruism is going

⁹ Jones, 2002, p. 624-625.

¹⁰ Burks & Kobus, 2012, p. 317-325.

¹¹ Rubin, 2009, p. 409.

¹² Marcum, 2011, p. 879.

¹³ Elderly homeless man, 2013, p. 1.

to do nothing to get us ahead in our individual lives, it isn't a part of the American dream or a step in natural selection. It is of the utmost importance that we build the base of love so we can strive towards acting in a purely altruistic way.

Literature Cited

- Bergman J. (1999) Darwinism and the Nazi race Holocaust. *Creation Ex Nihilo Technical Journal*, 13(2), 101-111. Retrieved March 4, 2014, from http://temcat.com/L-4-Topical-Library/Creation/Darwinism-Nazi-Holocaust.pdf
- Burks, D. & Kobus, A. (2012) The legacy of altruism in health care: the promotion of empathy, pro-sociality and humanism. *Medical Education*, 46(3), 317-325. doi:10.1111/j.1365-2923.2011.04159.x
- Brannan, DK. & Gillet, C. (2005) Evolutionary explanation and the ideal of altruism: the incommensurability of the Christian love command. *European Journal of Science and Theology*, 1, 11-25.
- Coakley, S. & Nowak, MA. (2014) *Evolution and theology of cooperation*. Harvard research proposal. Retrieved April 21, 2014, from http://www.fas.harvard.edu/~etc/research.html
- Elderly homeless man donates \$250 to charity. (2013, May 3). Retrieved from http://www.cbsnews.com/news/elderly-homeless-man-donates-250-to-charity/
- Hare, J. (2004) "Is there an Evolutionary Foundation for Human Morality?" *Evolution and Ethics: Human morality in biological and religious perspective*. (pp. 187-203). Grand Rapids: Eerdmans Publishing.
- Jones R. (2002) Declining altruism in medicine: understanding medical altruism is important in workforce planning. *British Medical Journal* 324:624-25. Retrieved March 1, 2014, from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1122564/
- Marcum, J. A. (2011) The role of prudent love in the practice of clinical medicine. *Journal of Evaluation in Clinical Practice*, 17(5), 877-882. doi:10.1111/j.1365-2753.2011.01719.x
- Morgan Z. (2012) The demographics of altruism. ACU Undergraduate Research Festival.
- Okasha, S. (2003, June 3) Biological Altruism. Stanford University. Retrieved March 5, 2014, from http://plato.stanford.edu/entries/altruism-biological/
- Piff, PK. Kraus, MW. Côté, S. Cheng, BH. Keltner, D. (2010) Having less, giving more: The influence of social class on prosocial behavior. *Journal of Personality and Social Psychology*, 99(5), 771-784. http://dx.doi.org/10.1037/a0020092
- Post, SG. Underwood, LG. Schloss, JP. Hurlbut, WB. (2002) *Altruism and Altruistic Love*. New York, NY: Oxford University Press.
- Rubin, P. (2009) Altruism and self interest in medical decision making. *Journal of Law, Medicine and Ethics*, 37(3), 401-409. doi:10.1111/j.1748-720X.2009.0040