The Altruistic Self

Nathan Dougherty Department of Biology; College of Arts and Sciences Abilene Christian University

> Altruism as a purely naturalistic phenomenon self-defeats the term altogether; however, theology also makes unsubstantiated claims that some behaviors are purely selfless. I will first define various conceptual forms of altruism and then offer explanations of the term from neurological, evolutionary and psychological investigations. Despite the position that altruism can be reduced to a fantastical impossibility bearing neither the arms of science nor theology, it is also a fallacy to separate it from a religiously derived supernatural altruism that carries no implications for the realm of morality.

Veined within the confused conflict between science and religion, morality attempts to edify itself as cause to disestablish evolutionary insights that tend to reduce humanity to products of chance and fitness. Deeply associated with human morality is the ambiguous concept of altruism; there are arguments that attempt to split its role between being a liberator of evolutionary beliefs and a defender of religious infallibility. While science claims that altruism is a self-profiting, genetically derived behavioral trait that has survived environmental pressures, theology tends to view it as evidence of Godly influence that denies humanity from being classified within phylogenetic clades. Considering these modifications to the concept of altruism as an armament, it is necessary to establish a clear understanding of what altruism is; its obscurity is that of a singular dialectal utterance that represents varying ideas with immensely differing implications for ideological debates. The typical usage of the concept of altruism within the scientific realm consequently self-defeats the term altogether, while proponents of theological beliefs make unsubstantiated claims that certain actions or behaviors are purely selfless. After clearly distinguishing the conceptual forms of altruism, explanations

for rudimentary manifestations of the term can be discussed via neurological, evolutionary and psychological investigations; whereas the case for literal altruism is reduced to a fantastical impossibility bearing neither the arms of science nor theology, it is a fallacy separate from a religiously derived supernatural altruism and carries no implications for the realm of morality.

Defining Altruism

The term *altruism* must initially be divided based on varying intensities of effect on the individual participating in behaviors or actions. The first is that altruism is unselfish concern or behavior promoting the welfare of another person/organism with absolutely no personal profit. This definition provokes discourse within philosophical and psychological categories, often inviting religious moralists to advocate for evidence of its manifestation in radically selfless actions such as in the case of fatal selfsacrifice. The second is that altruism is concern or behavior that promotes the welfare of another individual/organism at some personal cost. This more unrestricted view of the idea does permit some personal benefit for the participant, whether initially or with delayed return. A subset of this

definition is biological altruism, which specifies that the cost to the individual is a reduction in reproductive capability.

Evolution of Altruism

With the tenants of survival of the fittest being ones of selfish competitive behaviors, the notion of biological altruism ascends as a seemingly unacquainted trait. If genes for altruistic behavior were selected via environmental pressures, it appears counterintuitive for altruism to be propagating in a system built on selfsustainability. At the core of natural selection, genes are the immortal component of a biological lineage; selfish genes must benefit generational inheritance whereas altruistic ones must hinder it.¹ Dawkins proposes an explanation of altruistic behavior, however, as related to the idea of selfish genes; by his theory, each individual gene is a selfish component of an organismal vector. These vectors exist as survival machines and constitute a genetically designed environment that is assembled via cooperation within a gene pool. Additionally, a gene is not a singular entity, but exists as copies of itself contained within these organismal vectors. The presence of altruistic genes (ones promoting prosocial altruistic behavior toward other individuals) amidst selfish genes has the potential to self-profit all genes of the species if cooperation is occurring at the organismal level.

Several evolutionary theories attempt to explain the presence of altruistic genes in humans as products of successful fitness dependent on cooperation.² Firstly, the theory of kin selection coincides with Dawkins' selfish gene theory in that these altruistic genes could have arisen via cooperation between individuals with similar gene pools, such as relatives. This

While these theories all suggest that an ultimate selfish benefit surpasses any altruistic behaviors (regarding evolutionary

idea is also synonymous with Hamilton's inclusive fitness theory in which fitness is based on numbers of offspring individually produced and the behaviors that lead to others of the same species producing offspring.³ This, however, does not explain the existence of prosocial behaviors towards other individuals that are not relatives, or are different species altogether. Interspecies altruism disestablishes the notion of similar genetic material being the only motivation for altruistic behaviors, and introduces the idea of environmentally induced, mutually beneficial, cross-species interactions that could select for altruistic genes. The second theory is reciprocal altruism which may be explained more as a sociobiological construct in which delayed cooperation exists to encourage altruistic behaviors. With this insight, an individual enacts a behavior characterized by personal risk and associates it with a return of personal profit from the other organism that it interacted with. This makes altruistic interactions increasingly more likely if delayed returns are consistent and have greater reward than the initial input. Thirdly, group selection theory establishes that the early days of hominids were ones of competition over limited resources, and tribal affiliations arose with association to individuals requiring grouping to be more successful than other individuals, or to compete with other groups. Prosocial behaviors within the groups would be altruistic while between-group interactions would be selfish and competitive. Individuals lacking genes that would promote cooperative behaviors would not produce offspring and consequently the lineage would terminate.

¹ Dawkins, 1989.

² Numan, 2015.

³ Marshall, 2016.

fitness), it is sometimes difficult to reconcile certain behaviors within these explanations. Steyn, a published travel journalist, captured interactions between a lioness and a family of baboons that seem to deviate from the benefit-over-cost Hamiltonian formula. The lioness killed a mother baboon that was carrying a single male infant baboon. While beginning to devour her meal, the lioness easily noticed the escaping infant. Instead of a swift death, however, the lioness nurtured the baboon and acted as if pained by the circumstances.⁴ Her fitness was drastically reduced in this situation for numerous reasons: 1) She ignored the mother baboon (meal); 2) she ignored the infant baboon (as a meal); 3) she violently rejected mating advances of two male lions (she possibly may have been defending the infant baboon).

From a sociobiology standpoint, the protective actions of the lioness could be marked as confused maternal instincts by which the infant baboon in distress elicited a mistaken sympathetic response from her. The failure of this hypothesis is that it assumes that in this instance, the lioness has a propensity toward being biologically unfit, which is unlikely considering that the lineage of lions stretches back to the middle Pleistocene (.8-1.0 Ma), and modern maned lions evolved from a single lineage 320-190 Ka ago.⁵ While the success of the lion rose through cooperative group hunting in preyrich ecosystems (Serengeti), the resilience of the species is notable within prey-scarce ecosystems (Kalahari). The edicts of population dynamics provide that organisms approach a carrying capacity based on the sustainability of their environment. In this case, a population of predator lions is only as successful in proliferating viable offspring as its prey are numerous or available. Killing an infant baboon would

reduce the potential biomass in the ecosystem that the lioness could feed on; that single infant will later become reproductively capable and provide exponentially more feeding opportunities. From this aspect, it is possible that altruistic prey-mercy toward infants is not a confusion of instincts, but an evolutionary advantage over predators that would otherwise completely reduce their prey population through non-selective killing and feeding.

The justification provided by population dynamics loses some stability when a helper individual sacrifices personal fitness to improve the fitness of a competitor. An adult elephant has been observed attempting to rescue an infant rhinoceros from a mire while being charged by the violent mother rhino.⁶ While Dawkins suggests that "unconscious calculations" via an "unspecified mechanism" manifest as compassion such as seen here, others suggest that "altruistic emotions of compassion, empathy and generosity" may be the missing link, "even if they serve 'selfish genes'."⁷ Emotion exists as a concept related to feeling that is often associated with the motivations of a mind; it is an element superseding genetic influences and residing rather in the organismal attribute of consciousness. Masson and McCarthy discuss the tendency for scientists to discourage the anthropomorphizing of animals which reigns from a denial of the influences of higher systems; these deserve as much attention within the altruism debate as rudimentary, selfish genes do.

Neurology of Altruism

Within human social systems, individuals often attribute literal altruism to acts of kindness; a prime example is helping a homeless person. Not only does this

⁴ Steyn, 2014.

⁵ Yamaguchi et al., 2004.pp. 330, 338.

⁶ Masson and McCarthy, 1995.

⁷ Ibid. p. 165.

assume that no genetic fitness is gained by the altruistically acting individual, but absolutely no personal benefit is received. Advances in understanding of neurological systems can confidently map out empathic responses within the brain that lead to prosocial behaviors, such as this one. Studies have found that the anterior insula (AI) of the insular cortex is the epicenter for altruistic decision making.⁸ The AI has been theorized to be a "sensory-related region" which "mediates emotional and empathic experiences" whereas the anterior cingulate cortex (ACC) is active with the AI and provides the drive for "motivated behaviors."9 Finally projections onto the ventral pallidum (VP) from the nucleus accumbens and amygdala permit altruistic actions to occur via motor neuron output from the VP.

The complex theoretical circuitry provides a feedback system that activates reward centers of the brain in association with plans or actions that are empathically derived from the AI; physiologically, a reward of pleasure is self-produced from this process. This in turn denies that empathic actions derived from conscious motivation are truly altruistic if they provide a neurological benefit to the individual. Evidence of the role of AI in empathic response appears in a study in which individuals with lesions to this region had difficulty identifying if people in pictures (such as one with their toe being smashed under a desk) were suffering or not.¹⁰ Failure to empathize leads to a decrease in likelihood to act altruistically on feelings of motivation (considering they are not there at all or are limited). Despite this, if an individual with no empathic motivation (no pleasurable neurological reward for altruistic behaviors) acts in a way that is perceived as

altruistic, the psychosocial realm is implicated in providing a selfish reinforcement of this behavior.

Psychology of Altruism

Familiar within the psychoanalytical discussions are the manifestations of subdivisions of the mind: a tripartite of id, ego, and superego.¹¹ Freud's coined terminology presents the mind as a selfishlydriven entity by which altruistic actions fit as similarly as they do into theories of reciprocal altruism. The id is primal desire, often for food or sex, with no regard for other individuals or for reality itself. The superego is considered the moral component, but some advocate that it is more in essence founded upon environmental factors; it is the subconscious proponent of societally influenced norms or expected behaviors, whether immoral or moral.¹² The ego is the moderator between the two, which are often opposing entities of the subconscious mind. Considering a physiologically unbenefited individual acting altruistically (no neurological sensations of pleasure), actions taken would still be influenced by this underlying psychological system. Avoiding helping the individual amidst societal norms that promote altruistic behaviors as expected would make offense against the superego. Carveth explains that the "role of persecutory guilt (superego)" exists "as a defence against depressive guilt (conscience)."¹³ In this aspect, conscious guilt would arise if no altruistic action was taken. On the contrary proceeding with the altruistic action deviates from a negative psychosocial consequence, and fuels the desire of the superego; this in turn generates permissibility of the ego to substantiate the

selfish desires of the id. Thus, unconscious

⁸ Op. cit. ref. 2.

⁹ Ibid. p. 277.

¹⁰ Op. cit. ref. 2.

¹¹ Heffner, 2016.

¹² Carveth, 2015.

¹³ Ibid. p. 210.

aspects of an individual disestablish the presence of literal altruism within the actions of someone lacking a conscious desire to act in a certain sacrificial or selfless way.

Death and Altruism

Neurological and psychological theories establish that literal altruism is obstructed by an inevitable profit to self; this draws into question the nature of humanity which various philosophers have attempted to delineate within the periphery of morality. Thomas Hobbes proposed that the inherent selfishness of humanity was so evident that restrictive systems of government were necessary to avoid societal chaos. He personally dealt with the scenario of a homeless man asking for alms in 17th century London, which despite his views on the inherent selfish of mankind, he still aided the man. When asked if he would still have assisted him if governmental and societal restrictions were absent, he replied that he would because giving alms "doth also ease me."14 Hobbes provided insight into the neurological interactions associated with prosocial behavior centuries prior to discovery. He also proposed that the only escape for mankind's "perpetual and restless desire of power after power" was death.

Considering prosocial altruistic acts that lead to a fatal personal cost, the concept of literal altruism is observed in a new light. If the self dissipates from existence via actions that are altruistic, then selfish desire must also be absent from the action. Within the Hindu belief system, adherents face a personal reality that they are trapped with a cyclic reincarnation characterized by personal suffering. Here terminology of *good karma* translates as positive accumulating consequences of altruistic behavior which will lead to a more

advantageous state of reincarnation (a higher caste or a more affluent organism). Eventually, however, individuals reach a prescribed level of Karmic advancement that allows them a meditative transcendence to obtain omniscient knowledge. In this, they become like God and reabsorb into the Primal One (God) ceasing to exist altogether, but also simultaneously merge into an all-encompassing, but transformed existence. The dilemma that restricts literal altruism as being factualized here is that from another aspect of this situation, the transcending Hindu is simply selfishly avoiding a cyclic rebirth that is characterized by personal suffering by acting altruistically; this transcendence then falls more closely within the confines of reciprocal altruism by which a supernatural component is the reciprocating benefactor. This situation is identical to the individual lacking an anterior insula, who still acts selfishly at the root of prosocial behaviors as a mode of guilt avoidance.

Altruism in Christianity

In response to Dawkins' selfish gene theory, Hill notes the "tendency of sociobiologists to utilize reductionist thinking and not acknowledge the whole human person."¹⁵ Dawkins' reductionism prevents the permissible existence of higher order systems differing from their constituent parts (selfish genes); this ontological reductionism also leaves gaps filled with suprascientific reasoning.¹⁶ One such reasoning involves his proposal for delegating the teaching of behaviors that are unnaturally altruistic so as to improve the quality of a world that is relentlessly selfish and brutal. This lack of logical reasoning instigates an unnecessary attack on theological beliefs, forcing both evolutionary and theology thinkers to

¹⁴ Quoted in Goleman, 2006.p. 59.

¹⁵ Hill, 2016. 77.

¹⁶ Hill, 2016.

definitively choose one incomplete and unsubstantiated ideology over another. Similarly, it would be unacceptable for theological entities to impose a God-of-thegaps argument on evolutionists who are considering theological beliefs. While Dawkins' insight into the selfish components of genetic systems is methodologically sound, his expansion of reason onto higher-level systems lacks perspective and logic that could permit Christian theologians to accept these gene qualities as exclusively admissible within evolutionary thought.

Imagining that Christians could accept an all-encompassing, genetic selfishness as cause for all human behavior, including altruism, several biblical compromises of interpretation would be made. In the realm of misinterpretation of scripture, however, it is devisable to believe in part that reciprocal altruism and inclusive fitness are the only needed explanations for selfless behavior. If the selfish-gene is the sole motivator behind all prosocial behavior, it is impossible to accept the idea of divinely provided free-will. It would require a reconstruction of interpretation of imago Dei which Augustine characterizes as humanity's possession of "reason, or mind, or understanding" that grants a superior distinction from the rest of created life.¹⁷ Since these characteristics are ones of higher-order systems acting independently of selfish-gene influences, this interpretation of the image of God in humanity does not coincide with selfish gene theory. Calvinistic interpretation classifies the image of God under humanity's conformation to "function" and "order" as to fulfill the image of God, rather than the "possession of powers of reason."¹⁸ Consequently accepting this position also

invites the belief in predestination since gene-influences, rather than free-will, are causation for all human behavior, including altruism, morality, and ethics. Despite this, Calvinist thought on the image of God in humanity still incites a belief in purpose, as associated with these suprascientific concepts of right and wrong, that would not logically interlock with the restrictive selfish-gene theory.

It is upon these suprascientific notions that a more complex view of altruism is formed. John Polkinghorne explains that while "kin altruism and reciprocal altruism are enlightening," the human ability to act altruistically in response to situations considered wrong "are facts about the ethical reality within which we function as morally responsible persons."¹⁹ Explanations for a potential supranormal altruism (outside biological constructs) are present within a "Trinitarian framework" that is dependent on a diety that is "beneficent".²⁰ This view also relies on a third interpretation of imago Dei which attributes altruistic behavior as the manifestation of God's prosocial, Trinitarian identity within humanity;²¹ this is an amplification of Augustine's interpretation rather than a conflicting view that derives the motivation of altruistic behaviors from an inherent purpose of community. While Christianity identifies the singularity of the divine creator, the Triune of God, Jesus, and the Holy Spirit fill different roles to facilitate divine altruism as a behavioral influence in humanity.

While God persists in this view as benevolent and altruistic, Jesus exists as the incarnation of God's intended altruism toward humanity. Dawkins' invitation to actively instruct rebellion against genetic selfishness is ironically exemplified by the

¹⁷ Quoted in Mahoney, 2011, p. 19.

¹⁸ Mahoney, 2011, p. 20.

¹⁹ Op. cit. ref. 17, p. 41.

²⁰ Barrett, 2015. p. 30.

²¹ Mahoney, 2011.

incarnate divine altruism of Jesus; God's image was embodied within a vessel with both the permissibility of selfish genes, and the divinity of supranormal altruism. Jesus provided the exemplification of God's desired purpose for humanity which was a "major evolutionary step in the moral advancement of the human species."22 The role of the Holy Spirit within Trinitarian altruism is to promote "inspiration of the heart" or "moral inspiration" by which altruistic actions can be divinely influenced.²³ Romans 8:5 implicates the presence of an alternating and conflicting set of desires: ones "according to the flesh" and ones "in accordance with the Spirit." This message indicates a conscious abolition of desires originating from selfish genes in turn for a supranormal altruism that is distinct from even psychosocial or environmental influences altogether.

The debate over the plausibility of literal altruism is not excused by relinquishing of personal desire in exchange for a supernatural one. An individual still must consciously pursue a selfish desire of transcending inherent selfishness; selflessness is limited by the existence of the self and logically, to be purely selfless, one would have to have never existed initially. This debate aside, individuals confuse the association of selflessness (as a radically pure concept) with the status of morality. From a Christian standpoint, "one does not have to be exclusively giving or refrain from any reciprocity to found in the divine order of love.²⁴ This is evident as the apostle Paul describes in Romans 8:16-`7 (NIV) that as "co-heirs with Christ... we share in his suffering so that we may also share in his

glory." *Suffering* indicates an altruistic sacrifice as exemplified by Jesus, while *glory* is a reciprocal benefit in response to the action. Delineations of right and wrong within prosocial behaviors ascribe that altruism, with awareness of benefit, does not implicate immorality, but altruism with intent for benefit does.

Conclusion

With altruism being a primary conduit for Christian apologetics, it is important to correct indiscriminate applications of this concept by clearly defining the roles of the self within altruistic behaviors. To promote that a morally derived form of altruism is one of complete and literal sacrifice of self is to promote a contradiction against the existence of the self; it also reduces morally derived selfsacrifice to an impossibility. If the proper acknowledgement of a realistic reciprocal altruism is accepted, then divine altruism emerges within theological systems as a means for prosocial interactions that do not eliminate morality via the presence of reciprocal benefit. Similarly, while Dawkins' selfish gene theory methodologically advances understanding of some altruistic behavioral influences, it ontologically reduces the complexity of altruism to these small genomic elements. The consequence of this is a naturalistic fallacy that eliminates both the existence of more complex systems (brain, social environment, psychology) and the potential for positive integration of religion and science.

Literature Cited

Barrett, P. (2015). The emergence of imagination and altruism in human evolution: Key elements in a new-style natural theology. *Journal of Theology for Southern Africa*, 15329-45.

²⁴ Op. cit. ref. 16, p. 101.

Dialogue & Nexus | Fall 2016-Spring 2017 | Volume 4

²² Ibid. p. 42.

²³ Quoted in Barrett, 2015.p. 38.

- Carveth, D. L. (2015). The immoral superego: Conscience as the fourth element in the structural theory of the mind. *Canadian Journal of Psychoanalysis*, 23(1), 206-223.
- Dawkins, Richard. (1989). The selfish gene. New York: Oxford University Press.
- Goleman, D. (2006). Social Intelligence: The revolutionary new science of human relationships. New York: Bantam Dell.
- Heffner, C. (2016). *Freud's structural and topographical model*. Retrieved from http://allpsych.com/psychology101/ego/
- Hill, Matthew N. (2016). *Evolution and holiness: Sociobiology, altruism, and the quest for Wesleyan Perfection*. Downer's Grove: InterVarsity Press.
- Mahoney, J. (2011). Christianity in evolution. Washington D.C.: Georgetown University Press
- Marshall, J.A. (2016). What is inclusive fitness theory, and what is it for? *Current Opinion in Behavioral Sciences*, 12, 103-108. doi:10.1016/j.cobeha.2016.09.2015
- Masson, J. M., & McCarthy S. (1995). *When elephants weep: The emotional lives of animals.* New York: Dell Publishing.
- Numan, M. (2015). Neurobiology of social behavior. San Diego: Academic Press.
- Steyn, P. (2014, Apr 3). Cat Watch. Retrieved from

http://voices.nationalgeographic.com/2014/04/03/baby-baboons-dramatic-encounterwith-lions-ends-with-a-heroic-twist/

Yamaguchi, N., Cooper, A., Werdelin, L., & Macdonald, D. W. (n.d). Evolution of the mane and group-living in the lion (*Panthera leo*): A review. *Journal of Zoology (London)*, 263 (Part 4), 329-342.