WHAT RELATIONSHIP BETWEEN BIOLOGICAL AND INTENTIONAL ALTRUISM?

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Abstract. In this essay, I first show that, from the view that God is the ultimate cause of the human ability to perform ethically laudable acts, does not follow that no continuity between biological and intentional altruism is possible. In line with recent theological research concerning the non-human world, I argue that there is a *partial* continuity between these two forms of altruism. I also show that, from a naturalistic viewpoint, no continuity at all seems demonstrable between the two forms of altruism at stake. I therefore contribute to strengthen a more general conviction, according to which evolution in itself is more persuasive than its combination with naturalism.

I. INTRODUCTION

As is known, the publication of *The Descent of Man* in 1871 gave rise to a wealth of debates regarding the possibility of considering both intellectual life and moral experience as outcomes of evolution from the lowest form of animal life. Progress in this new direction was made and enthusiasm about its chances of success was fueled. In *Taking Darwin Seriously*, M. Ruse claimed some decades ago: 'Vanity and ignorance alone support the claim that human reason has a privileged status … we are the product of a long, directionless, evolutionary process'.[1] Some years earlier, American biologist E. O. Wilson had written that 'scientists and humanists should consider together the possibility that the time has come for ethics to be removed temporarily from the hands of the philosophers and biologicized'.[2]

As a matter of fact, researchers such as W. Hamilton[3] and F. de Waal[4] seem to have uncovered considerable degrees of altruism among animals. (I take here 'altruism' as *any behavior that is beneficial to the recipients and detrimental to the actors*: 'self-costing aid to others'.[5]) More recently, S. Coakley and M. Nowak have focused on the concept of cooperation taken as an evolutionary strategy,[6] and this contributes to confirm the idea that even the highest levels of morality may be explained on a biological basis.

1 Michael Ruse, *Taking Darwin Seriously* (Basil Blackwell, 1987), 206.

2 Edward O. Wilson, *Sociobiology: The New Synthesis* (Harvard Univ. Press, 1975), 562.

3 His seminal research in the field showed a very high degree of cooperation (division of labor, food-sharing, information sharing) among social insects such as ants, wasps and bees (bees were even found able to make ultimate sacrifice in defense of the hive). See William D. Hamilton, "The genetical evolution of social behaviour. II", *Journal of Theoretical Biology* 7, no. 1 (1964).

4 His research was aimed at showing that apes can act with compassion, and that chimps and bonobos aid one another. He intended to demonstrate that human morality grounds in behaviours which many mammals exhibit. See Frans B. M. de Waal, *Our Inner Ape: A Leading Primatologist Explains Why We Are Who We Are* (Penguin, 2006).

5 I don't take into account the so-called 'reciprocal altruism' (see Robert Trivers, "The Evolution of Reciprocal Altruism", *Quarterly Review of Biology* 46 (1971)), which seems nothing but delayed self-interest. Let me add that by 'biological' altruism I mean altruism that characterizes the non-human world, whereas by 'intentional' altruism I mean altruism that is due to moral intention and characterizes the human experience.

6 See Martin A. Nowak and Sarah Coakley, eds., *Evolution, Games, and God: The Principles of Cooperation* (Harvard Univ. Press, 2013).

As could be expected, this line of thinking has fueled ample controversy. Going back to the very publication of Darwin's work, research in this direction has been challenged by numerous counterarguments.[7] This is not surprising, given the fact that explaining human nature on a biological basis is often perceived as opposing the view that human beings are superior to the surrounding world — a view that has been generally accepted throughout history. Furthermore, this opposition seems to be amplified if the debate involves — as has historically happened — the religious view of humans, in particular the Christian view. According to this view, in fact, human beings are creatures, who, under the influence of divine grace, are capable of promoting communion with God, which is the ultimate source of their ability to make both spiritual and moral progress.[8]

In this essay, I first show that, from the view that God is the ultimate cause of the human ability to perform ethically laudable acts, does not follow that no continuity between biological and intentional or human altruism is possible. In line with recent theological research concerning the non-human world, I argue that there is a *partial* continuity between these two forms of altruism. I then contend that, from a naturalistic viewpoint, no continuity at all seems demonstrable between the two forms of altruism at stake. In this way, I highlight a contrast between two approaches to the subject under discussion — a Christian theistic approach and a non-theistic or naturalistic one. I emphasize that such a contrast is not a very sharp one, because in both cases a full continuity or continuity properly so called between the two forms of altruism in question is denied. At the same time, I support the idea that a naturalistic view of evolutionary ethics turns out to be less able than a theistic one to argue for (even only partial) continuity between biological and intentional or human altruism.[9] As a result, I contribute to strengthen a more general conviction, according to which evolution in itself is more persuasive than its combination with naturalism.

II. IN DEFENSE OF A PARTIAL CONTINUITY BETWEEN BIOLOGICAL AND INTENTIONAL OR HUMAN ALTRUISM: A CHRISTIAN THEISTIC APPROACH

In this section, I intend to argue that *partial continuity* between biological and human altruism emerges from a theistic perspective, more precisely, the one that spans from the Gospel to the Christian doctrine of the relationship between the Creator and its creatures, especially Thomas Aquinas's doctrine.

By *partial* continuity I mean an un-interrupted succession of acts to perform which natural agents have the potential as well as structural impediments. These impediments are so deeply rooted in the nature of the agents in question that only an intervention of the ultimate cause of everything, i.e., God, may remove them. So, for example, a boy who has a gift for music and is also physically incapable of playing any musical instrument can nevertheless become a great musician if he finds himself in a high-tech society where he can be provided with special equipment that allows him to create and play music. However, this example is only partially explanatory. I have tried to imagine an impediment rooted to the point that, in epochs characterized by lower technological development, it would not have been possible to remove it. What I mean by partial continuity is even more radical. This view, as I will show, is based on a specifically Christian conception of grace and nature, and requires reference to such a radical impediment that removing it is possible only to the creator of all things. From this follows that, from a naturalistic

7 The main of which is probably the opposition that has usually been stated between mere evolution through fight for survival, on the one hand, and supererogatory acts and self-sacrifice on the other. Self-sacrifice should be seen as an indication of one's being subjected to a superior moral law, which does not have anything to do with self-survival. It is known that Darwin himself considered the high level of human morality an obstacle to his theory.

8 'To distinguish between the right and wrong use of power, and to motivate human beings to do what is right even when it does not suit their convenience, requires recourse to moral and religious norms. The biddings of conscience make it clear that we are inescapably under a higher law' (Avery Dulles, "God and evolution", *First Things* 176 (2007), 23).

9 While comparing what he calls 'evolutionary naturalism' and 'evolutionary theism,' M. Peterson affirms that 'morality as we know it from evolutionary science and common experience is more likely on the assumption that theism is true than on the assumption that naturalism is true' (Michael L. Peterson, "A Theological Evaluation of Evolutionary Ethics", in *The Cambridge Handbook of Evolutionary Ethics*, ed. Michael Ruse and Robert J. Richards (Cambridge Univ. Press, 2017), 286).

viewpoint, such a partial continuity simply cannot be taken into consideration, since it only applies to a theistic view. Therefore, the continuity that I will consider in the next section from the viewpoint of naturalism is a *full* continuity or continuity properly so called. By full continuity I mean an un-interrupted succession of acts that natural agents have the potential to perform, where other factors play a merely peripheral role. This role consists in providing the appropriate condition in which the agents in question can autonomously develop. An example of full continuity may be a human being who is born, matures and ages according to his/her nature, where the contribution of the external world merely consists in guaranteeing the appropriate climate, the availability of food, and so forth.

Before proceeding, let me register two *caveats*. First, it is for the sake of exemplification that I take into account the Christian tradition, though aspects of Jewish and Islamic theism that are similar to Christian doctrine may appear to be included in this discussion. I am fully aware that other religious doctrines may profitably expand and enrich this reflection. Focusing first on Christianity, however, can be an appropriate decision, given the role that this religion has played in shaping Western culture. Second, from a Christian viewpoint a full continuity between biological and human altruism is to be put aside from the outset — and for this reason I will explore only the abovementioned partial continuity. In fact, the conviction that some creatures do good on biological grounds is at odds with the idea that God is the supreme Law-giver who rewards those who do good and punishes those who do evil. If morality is due to biological factors and not to moral intentions, then no merit can be ascribed to moral agents, which is inconsistent with the existence of moral norms as well as their giver.[10]

Now let me begin by saying that the Christian theological tradition bears considerable witness to the irreducible distinction between the non-human and the human world. While referring to the prejudice with which the 'more-than-human-world' has been treated in the course of past centuries, L. Kearns mentions first religion among the causes of such prejudice. For her, 'dominant strands of our Western culture, manifest in our religious traditions, science, politics, legal codes, philosophies, and worldviews, have been busy silencing that world, telling us that other-than-human animals cannot speak and, if they can, then we should shut our eyes'.[11] More openly and directly, L. White blames Christianity and asks: 'What did Christianity tell people about their relations with the environment?'; the response that he mentions is: 'Be anthropocentric and multiply, and subdue and desacralize the earth'.[12]

This criticism addressed to traditional views of non-human creatures paves the way for a reappraisal of the relationship between humans and non-humans. D. Clough has published a book entitled *On ani-*

10 J. Lemos invites me to consider that morality can be due to both biological factors and moral intentions at the same time. After all, many socio-biologists, such as M. Ruse, believe that we act with certain intentions because it is *adaptive* to do so. For instance, there is a biological explanation for why I have the intention to get my children fed and why I act on this intention. If I don't have this intention and act on it, then my children are not very likely to survive and that doesn't help my reproductive success. Two responses can be provided. Firstly, let us consider the two following circumstances. On the one hand, I do good, which, from the human viewpoint, is due to my intention, whereas, from a biological viewpoint, is simply *adaptive*. On the other hand, I do evil, which, from a human viewpoint, is due to my intention. But what about from the biological point of view? I may respond that the evil I do is caused by the fact that I did not act *adaptively*. But how can this be explained? If biological mechanisms cause me to act adaptively, I don't see why I can act differently. The only possible answer, as far as I can see, is the one I propose at the end of this article, where I consider the hypothesis that some actions may not be adaptive because are not part of the evolutionary process. My persuasion, which I anticipate here, is that this hypothesis could be proved true only if we were able to assess any single action. This would allow us to see whether or not a certain action is consistent with the principle of adaptation. However, natural selection and survival are long-term processes, only at the end of which we may be able to answer such a question. From this follows that we are simply unable to compare the two viewpoints (biological factors and moral intentions). As a consequence, we are not able to say that there is a parallelism between them. Secondly, I am not necessarily against the idea that biology and morality proceed parallel to one another, which I find somehow acceptable from a Christian viewpoint (see below, notes 20ff). That which I reject is only the *combination* of the parallelism at issue *with naturalism*. According to this combination, human morality is an outcome of evolution from the lowest forms of animal life. And this idea is precisely the full continuity between biological and human altruism, which I will show, in the second section of this essay, is to be denied.

11 Laurel Kearns, *Divinanimality: Animal Theory, Creaturely Theology* (Fordham University Press, 2014), xii.

12 Lynn White, "The Historical Roots of Our Ecologic Crisis", *JASA* 21 (1969), 42ff.

mals, which he eloquently considers the first volume of a *Systematic theology*,[13] and whose aim is 'to demonstrate that many of the ways we have drawn theological boundaries between human and nonhuman animals are in need of rethinking'.[14] As a matter of fact, this need is pressing, as it is shown by the fact that the non-human animated living beings are usually referred to with only one name — 'animals'. In his introduction to *Divinanimality*, S. Moore appeals to J. Derrida who first deconstructed the human/animal opposition by noting that we speak of 'animals' as 'a single set that can be opposed to us' because we ignore 'the infinite space that separates the lizard from the dog, the protozoon from the dolphin'.[15]

From the fact that theological research highlights the need to rethink the relationship between the human and the non-human world clearly follows that, from a Christian viewpoint, a form of *continuity* between these worlds appears to be more appropriate than a mere opposition.

In line with this view, let me appeal to two relevant passages of the Gospel, which emphasize that non-human creatures can perform altruistic acts and offer exemplary types of communion with God.

An exemplary type of communion with God is shown by the reliance on him that Jesus notes characterizes birds and flowers:

> I tell you, do not worry about your life, what you will eat or drink; or about your body, what you will wear … Look at the birds of the air; they do not sow or reap or store away in barns, and yet your heavenly Father feeds them. Are you not much more valuable than they? … And why do you worry about clothes? See how the flowers of the field grow. They do not labor or spin. yet, I tell you that not even Salomon in all his splendor was dressed like one of these (Matthew 6, 26–29, NIV).

Even more interesting is the passage devoted to the kernel of wheat, which is able to benefit others by way of self-sacrifice:

> Very truly I tell you, unless a kernel of wheat falls to the ground and dies, it remains only a single seed. But if it dies, it produces many seeds. Anyone who loves their life will lose it, while anyone who hates their life in this world will keep it for eternal life (John 12,24–25, NIV).

In both cases, Jesus proposes plants and animals as an example to human beings, which is why animals, as D. Grumett points out, may be seen 'as theological teachers'.[16] (Although Grumett is only mentioning animals, his reflection, to which I will continue referring below, may extend to all of non-human creatures.)

This is not surprising, as shown by the main branches of the Christian tradition. According to this tradition, an omnipotent, omniscient and all-perfectly-loving God is the creator of everything, from which follows that, though creation is corruptible, is *good*. As John Wesley said, 'God is in all things, and we are to see the creator in the glass of every creature'. Not to do so is 'indeed, a kind of practical atheism'.[17] Going back to Aquinas, who in this regard gets special attention among other notable theologians, we see that he evidences this typically Christian valorization of all creatures with his famous: 'Grace does not destroy nature but perfects it'.[18]

This theological valorization of all the creatures of the world seems to have been lost especially during the modern age, which may explain the rigid opposition between human and non-human world that the theological literature mentioned before criticizes. H. Martin provides a historically crucial remark:

> Until the 16th century the common view of nature was that of a creation permeated by the imprint of the divine … But the dualism of nature and the supernatural, instigated by neo-scholastic theology in the

13 David L. Clough, *On Animals: Volume I: Systematic Theology* (T&T Clark, 2012).
14 David L. Clough, "On Thinking Theologically about Animals: A Response", *Zygon* 49, no. 3 (2014), 764.
15 Jacques Derrida, *The Animal That Therefore I Am* (Fordham Univ. Press, 2008), 34, cit. in Moore and Kearns, *Divinanimality: Animal Theory, Creaturely Theology*, 5.
16 David Grummett, "Animals in Christian Theology", *Religion Compass* 5, no. 10 (2011), 582.
17 John Wesley, ed., *The Works of John Wesley* (Zondervan Publishing House, 1872), Sermon 23, I, xi.
18 Thomas Aquinas, *Summa theologiae, tr. by the Fathers of the English Dominican Province, second and revised edition* (Oates and Washbourne, 1920), I,1,8,ad2.

> sixteenth century, and promoted by the Church, could only have contributed to the exposure of the world to a purely natural interpretation.[19]

Another contribution has certainly been made by the Cartesian conception of animals as beings devoid of consciousness and then considered mere 'machines'. D. Grumett has pointed out that 'a picture of animals as irrational and uncommunicative … is more modern than might be realised' and has suggested that 'a cosmology that gives a more nuanced view of animal natures, capabilities and virtues … [can be found in] rereadings of Aquinas and Augustine'.[20]

Grumett's suggestion should not take by surprise, because a mutually beneficial relationship between nature and creation, on the one hand, and divine grace, on the other, is widely considered part of the tradition to which he refers. To mention only Aquinas, the fact that nature relates to grace as the imperfect to the perfect (see above, note 18) implies that the former autonomously points beyond itself to the perfection offered by the latter. It can therefore be said that, in Aquinas's view, 'animals just like humans have their own God-given *telos*, and humans should respect that *telos*'.[21]

The respect in question is shown by Aquinas when he grounds human relationships in biological ties. According to S. Pope, while Aquinas 'did not propose a rigid and universal ranking of love based only on biological connection', 'explicit reliance on biological nature is displayed' on several occasions. Pope mentions *Summa theologiae* II-II, 26, 10, 'which asks whether a person ought to love his or her mother more than his or her father'. Aquinas's approach from the standpoint of natural ties, so Pope notes, 'strikes many contemporaries as quaint'. At any rate, Aquinas's response ('it is one's father who ought to be loved more than one's mother') relies on an argument that 'depended heavily on Aristotle's theory of biological generation, which maintained that while both parents are loved as principles of one's being, one's father, whose semen provides the "active principle" of one's generation, is the source of being in a higher way than one's mother'.[22]

To underline this dependence on Aristotle's thought is totally appropriate; it is at the same time necessary to point out that such a dependence is also due to the valorization of the creatures that is typical of Christian theism, which emphasizes not only the goodness of the creator of all things but also the fact that God, to reveal himself, became incarnate.[23] It is on the basis of this typically Christian perspective that it can at least partly be explained why Aquinas drew on both Aristotle's and Plato's philosophy. The former allows us to value the material world, while the latter constitutes an appropriate ground on which to establish, in regard to the relationship with the non-human world, 'a principle of participation in the divine life that includes animals'.[24] From this follows that

19 Hilary C. Martin, "Divine grace and the created order in the history of catholic theology", in *Matter and meaning: is matter sacred or profane?*, ed. Michael Fuller (Cambridge Scholars Publishing, 2010), 125 and 127. Martin also says, however, that new appreciation of the goodness of creation followed precisely from neo-scholasticism, which ended up promoting a renewal of studies on Aquinas and a new attention to 'his repeated emphasis on the goodness of created nature' (Fergus Kerr, *After Aquinas: Versions of Thomism* (Blackwell Publishing, 2002)), 5, cit. in Martin, "Divine grace and the created order in the history of catholic theology", 127).

20 Grummett, "Animals in Christian Theology", 581.

21 Ibid., 582. Let me add that, while valorizing the creatural world, Aquinas follows Aristotelian philosophy. According to Aristotle, 'we should approach the investigation of every kind of animal without being ashamed, since in each one of them there is something natural and something beautiful. … And the end for the sake of which a thing has been constructed or has come to be belongs to what is beautiful' (Aristotle, *On the Parts of Animals I-IV* (Cambridge Univ. Press, 2001), 645a621).

22 Stephen J. Pope, *The Evolution of Altruism and the Ordering of Love* (Georgetown Univ. Press, 1994), 65f.

23 From this, however, does not follow that creation's sinfulness is obliterated. As S. Pope appropriately points out, 'creation, though sinful, is redeemed rather than obliterated by God. ..Our awareness of the power of evil and sin underscores the serious and persistent obstacles to its actualization, but the counterbalancing sacramental affirmation of the goodness of the creation affirms its constructive possibilities' (Stephen J. Pope, "Relating Self, Others, and Sacrifice in the Ordering of Love", in *Altruism and Altruistic Love*: *Science, Philosophy, and Religion in Dialogue*, ed. Stephen G. Post et al. (Oxford Univ. Press, 2002), 173).

24 Grummett, "Animals in Christian Theology", 582.

> nature is permeated by grace … this reflects Aquinas's view that it is a mistake to think that something is caused *partim a Deo et partim a naturali agente*. Rather, he says, it is caused *totus ab utroque secundum alium modum*, which may be translated as 'totally by both [God and nature] according to different modes'.[25]

The idea that nature is pervaded by grace and that God causes everything according to a proper mode is consistent with the conviction that everything works according to an equally proper mode. As Aquinas says, 'we do not take away their proper actions from created things, though we attribute all the effects of created things to God, as an agent working in all things'. It may therefore be said that 'human natural moral capacities have been brought about through an evolutionary process in which grace has been present'.

S. Pope offers a view of how exactly this connection between evolutionary process and divine grace may be possible. On the one hand, he argues for the connection at hand by showing that solidarity and forms of altruism are already part of nature, more precisely they characterize kin-relations: 'We have evolved to form bonds of love with a small number of people. … Because our resources are limited, our caring is channeled to the nearest and dearest by evolution'.[26] On the other hand, grace is needed so that such levels of morality can go beyond one's kin and characterize out-group or between-group relationships:[27]

> Science cannot explain how out-group altruism is possible on the basis of evolutionary principles. Yet this incapacity, rather than demonstrating the illusory nature of out-group altruism, can be taken to be an indication of the inability of evolutionary theory to 'explain' everything that is possible for human beings … .In theological language, this capacity for 'self-transcendence' marks our existence as created in the 'image of God'.[28]

This argument supports the conviction that there must be both continuity and discontinuity between the two kinds of altruism here under consideration.[29] In line with this argument, I intend to present a new argument.

I start by considering that both the natural world — the one that includes non-human and human beings — and the world as taken from a theological viewpoint, i.e., the human world in which people act in accordance with the Christian teachings and under the influence of divine grace, include *a coexistence of self-sacrifice and self-interest*.

Before proceeding, let me point out that this clashes with deep-rooted and widespread convictions. The theological ethics whose peak is to give one's life for the sake of one's enemy at first sight does not seem to have anything in common with the mixture of selfishness and altruism that is typical of animal behavior. As M. Bekoff and J. Pierce have pointed out, among animal species not only altruism but also

25 Gerald J. Beyer, "Solidarity by Grace, Nature or Both? The Possibility of Human Solidarity in the Light of Evolutionary Biology and Catholic Moral Theology", *The Heythrop Journal* 54, no. 5 (2013), 748. The author cites Aquinas, *Summa contra gentiles*, III, 70. In this sense, it seems perfectly plausible that 'the deity who interacts with human organisms and calls them to respond in the best way to what is possible in any given situation is also the God who interacts with nonhumans and calls them to respond in the best way possible given their situations' (Thomas J. Oord, "Morals, Love, and Relations in Evolutionary Theory", in *Evolution and Ethics*: *Human Morality in Biological and Religious Perspective*, ed. Philip Clayton and Jeffrey Schloss (Eerdmans, 2004), 298).

26 Pope, *The Evolution of Altruism and the Ordering of Love*, 249.

27 For a group selection account of the evolution and psychology of unselfish behavior, see Elliott Sober and David S. Wilson, *Unto Others: The Evolution and Psychology of Unselfish Behavior* (Harvard Univ. Press, 1998). The basic idea championed in this book is that natural selection is fundamentally hostile to unselfish behaviour. More precisely, while selfishness prevails over altruism within group, altruistic groups prevail over selfish ones. Darwin himself had advanced the idea that self-sacrifice, though detrimental to the individual, might be beneficial at the group level.

28 Pope, "Relating Self, Others, and Sacrifice in the Ordering of Love", 178. This view, however, also includes a merely natural ability, 'in some circumstances, to prefer the common good to our own private good … Human beings obviously have a strong tendency to be excessively self-concerned, but we are also capable of genuine friendship and other forms of self-transcending love' (ibid., 176).

29 Let me point out that Pope's conviction that group selection might be culturally and not biologically caused is opposed by researches on cellular processes, who argue that 'organisms are themselves social groups' (David S. Wilson, *Darwin's Cathedral: Evolution, Religion, and the Nature of Society* (University Of Chicago Press, 2002), 18).

forms of selfishness and cruelty can be found.[30] What can this have in common with Christian ethics, from which love seems to emerge as self-sacrifice that opposes any form of self-love and gratification to the self? According to R. Niebuhr, for example, from a Christian viewpoint no self-love is acceptable and any 'concern for physical existence is prohibited'. As S. Pope says while summarizing Niebuhr's view, 'Christians must deny themselves, hate their family members, leave their friends and neighbors, and so forth — anything less is a half-hearted compromise'.[31]

On closer inspection, however, this reading of the Christian ethics, which Pope defines "dialectical" since it pits love as self-sacrifice against all forms of self-love,[32] does not prove to be plausible. It is at odds with the principle according to which grace does not destroy nature but perfects it, which I have largely taken into account so far. Opposing altruism and self-sacrifice to self-interest and self-love, in fact, contrasts with what appears to be the nature of the human condition. As Pope points out, 'we cannot be expected to give constantly to all people all the time without counting the cost … At the same time, we cannot expect to live a truly fulfilled life if our actions are constantly calibrated according to Machiavellian self-interest'.[33] Furthermore, the opposition in question also contrasts with what emerges from biblical literature:

> Biblical injunctions to 'hate' one's family should not be interpreted as a reversal of the Fourth Commandment — 'honor thy father and mother' — but simply as a stern warning against disordered 'familialism' and a command not to 'care more for' family than for Christ … Biblical literature approves of self-love; for example, among many references, consider Ps 1:1: 'Happy are those who do not follow the counsel of the wicked … ' and Jesus' promise to steadfast disciples: 'Your reward will be great in heaven' (Mt 5:12). [34]

Pope also mentions two outstanding representatives of the Christian tradition. He mentions first Aquinas, who 'believed that it is ethically legitimate to act in accord with the order of nature whereby we love those closest to us more than those who are farther away'.[35] This is not surprising, since Aquinas is widely recognized among theologians as probably the most engaged in championing the connection between grace and nature.[36] It is Pope's reference to Kierkegaard that is instead surprising, at least at first sight. As he says, 'even the dialectical Kierkegaard, the arch-critic of selfishness, recognized the legitimacy of ordered self-love'.[37] In Kierkegaard's words,

> To love oneself in the right way and to love one's neighbor correspond perfectly to one another … The law is therefore: you shall love yourself in the same way as you love your neighbor when you love him as yourself. [38]

Pope therefore concludes that a stark dichotomy between altruism and egoism is mistaken, and that 'altruism is good only when it is exercised in the context of the cardinal virtues of prudence, justice, tem-

30 See Marc Bekoff and Jessica Pierce, *Wild Justice: The Moral Lives of Animals* (University Of Chicago Press, 2009), 15–19. Selfishness and cruelty are undoubtedly part of animal nature as well as human nature. Consequently, some believe that acts that appear to be altruistically motivated are in actuality driven by self-interest. F. de Waal has fiercely opposed this view, which traces back to T. Huxley. De Waal has called it 'veneer theory', i.e., the theory according to which morality is nothing but 'a cultural overlay, a thin veneer hiding an otherwise selfish and brutish nature'. (*Our Inner Ape*, 7). On the basis of this theory, there are also those who believe that selfishness is a properly human character, from which follows that 'man has tried to deflect attention from it by making animals out to be more ferocious than they are' (Mary Midgley, "Animals and The Problem of Evil", in *Beast and Man*, ed. Mary Midgley (Routledge, 1995), 30).

31 Pope, "Relating Self, Others, and Sacrifice in the Ordering of Love", 172. Citation of Reinhold Niebuhr, *An Interpretation of Christian Ethics* (Crossroad, 1979), 25.

32 See Pope, "Relating Self, Others, and Sacrifice in the Ordering of Love", 172.

33 Ibid., 178.

34 Ibid., 176.

35 Ibid.

36 This has largely been shown above; see in particular notes 20ff.

37 Pope, "Relating Self, Others, and Sacrifice in the Ordering of Love", 174.

38 Soren Kierkegaard, *Works of Love* (Harper and Row, 1962), 39, cit. in Pope, "Relating Self, Others, and Sacrifice in the Ordering of Love", 174.

perance, and fortitude'.[39] Again, the claim that 'grace does not destroy nature but perfects it' proves to be crucial to our subject.

Let me now turn to the argument I promised to advance. Given the relationship between nature and grace that I have taken into consideration so far, the mixture of self-interest and altruism that characterizes the natural world should lack perfection, and should be perfected by way of grace. Since grace does not destroy nature but perfects it, perfecting this relationship should consist in fully harmonizing its two poles with each other. This harmonization, however, does not seem to be part of the natural world — at least on the basis of what we learn from human society. On the one hand, self-sacrifice, since it opposes self-interest, implies struggle and sorrow; on the other hand, due again to this opposition, self-interest does not help us thrive spiritually. If grace perfects nature, however, these limits should be overcome. This means that self-sacrifice and self-interest should grow together, in direct proportion to each other. It is precisely what the Gospel constantly repeats: giving one's life for the sake of others implies one's own flourishing, and no flourishing is available to those who do not want to self-sacrifice. At least two exemplary passages should be mentioned:

> Whoever wants to become great among you must be your servant, and whoever wants to be first must be your slave (Matthew, 20,26–27, NIV).

> Anyone who loves their life will lose it, while anyone who hates their life in this world will keep it for eternal life (John 12,24–25, NIV).

Both passages undeniably reconcile self-sacrifice and self-interest. As Augustine says while citing from the Book of Sirach, 'man himself, consecrated in the name of God, and vowed to God, is a sacrifice in so far as he dies to the world that he may live to God. For this is a part of that mercy which each man shows to himself; as it is written, "Have mercy on thy soul by pleasing God".[40] After all, if an omnipotent, omniscient, perfectly loving creator of everything exists, the best possible good to achieve is communion with him. To this end, everything else, including what at first glance may appear to be in one's own interest, may be promptly sacrificed.

This seems to constitute a satisfactory exemplification of the partial continuity between the two forms of altruism here under consideration. The natural coexistence of self-interest and self-sacrifice causes trouble because something impedes these two poles from satisfactorily interacting with each other. According to the theistic approach under consideration here, this coexistence is by nature, and is expected to be perfected and not destroyed by grace.[41] This occurs when grace removes the impediment, from which follows that the coexistence *is perfected* and the two poles in question are reconciled with each other.

III. AGAINST A FULL CONTINUITY BETWEEN BIOLOGICAL AND HUMAN ALTRUISM: A NON-THEISTIC OR NATURALISTIC APPROACH

After having approached the relationship between biological and human altruism from a theistic viewpoint, I will now offer a non-theistic or (methodologically) naturalistic view of it, i.e., a view that excludes the existence of an omnipotent, omniscient creator of all things. I will mainly devote this section to present an evidential argument that opposes the existence of a common function between biological and human altru-

39 Pope, "Relating Self, Others, and Sacrifice in the Ordering of Love", 168.

40 St Augustine, "The City of God", in *A Selected Library of the Christian Church*: *Nicene and Post-Nicene Fathers*, ed. Philip Schaff (Hendrickson, 1995).

41 The intervention of an external cause meets a need that is part of the nature. If it is not part of the nature, the intervention of an external cause resembles that which Dawkins maintains in *The Selfish Gene* (Oxford Univ. Press, 1989) while describing how humans become able to exercise solidarity: they can 'rebel against' their genetically selfish nature to begin 'deliberately cultivating and nurturing pure, disinterested altruism — something that has no place in nature, something that has never existed before in the whole history of the world' (200f.). As Beyer has pointed out, 'both Pope and Dawkins essentially argue that if human solidarity can be achieved it requires rising above nature', though the former also 'posits that human persons can and do perform genuinely altruistic acts that decrease inclusive fitness, such as Kolbe's martyrdom, and that evolution has laid foundations in human morality for such acts' (Beyer, "Solidarity by Grace, Nature or Both?", 737).

ism; I will then confirm the result of this argument by making reference to a logical argument that traces back to B. Russell, which I will show can still provide significant considerations.

Let me start from the distinction between biological and human altruism as it is depicted by the *Stanford Encyclopedia of Philosophy*:

> In everyday parlance, an action would only be called 'altruistic' if it was done with the conscious intention of helping another … In evolutionary biology, an organism is said to behave altruistically when its behaviour benefits other organisms, at cost to itself. The costs and benefits are measured in terms of reproductive fitness or expected number of offspring … It is the consequences of an action for reproductive fitness that determine whether the action counts as altruistic, not the intentions, if any, with which the action is performed. [42]

This distinction is also mentioned by a recent comprehensive reading of the relationship between evolutionary science and ethics:

> In evolutionary theory, the concept of altruism is used in its behavioural meaning, independently of its moral intention that can be neutral, selfless or even selfish. It is defined as behavior that, ultimately, reduces the reproductive fitness of a cooperating individual compared to the reproductive fitness of individuals who behave selfishly. [43]

Note that this distinction implies the employment of two different viewpoints, one that is *intellectual* and another one that is *physical* or *behavioural*.[44] On the one hand, saying that human altruism is defined on the basis of the *intentions* with which the altruistic act is performed implies the assumption of a point of view from which one goes beyond the mere behaviour and intellectually penetrates that act. On the other hand, saying that biological altruism is defined on the basis of the *consequences* that can be physically appreciated implies that the point of view assumed is merely physical or behavioural.

From this, two noteworthy considerations emerge.

First, a substantive limitation seems to characterize evolutionary ethics. In Aristotelian terms, it can be said that such a discipline necessarily limits itself to the consideration of only two of the four causes, which are indispensable to knowledge:

> Evolution, as generally presented, is concerned with material and efficient causes, neglecting the formal and final principles of explanation. In particular evolutionary ethics collapses the final cause into the circumstances of the genesis of qualities and tendencies which constitute the material for moral activity. Explanation in terms of material and efficient causation are incomplete.[45]

This remark is of special interest for my purposes, because Aristotle, as is known, devoted himself to biological studies. As O'Rourke points out, he 'recognised the social behaviour of certain species, especially that of hymenoptera (ants, bees, wasps), which provides sociobiology with evidence for primitive altruism'.[46] Although Aristotle did not give rise to an evolutionary theory, he was aware of the importance of dealing with origins and development and affirmed:

> '*He who considers things genetically and originatively will obtain the clearest view of them*.' For Aristotle, however, γενεσις *genesis* is more than a temporal beginning; it connotes nature (φυσις) and growth towards a τελος or goal, so that a complete understanding of a substance refers to all four causes.[47]

42 Samir Okasha, "Biological Altruism", in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2013).

43 Robert Cliquet and Dragana Avramov, *Evolution Science and Ethics in the Third Millennium: Challenges and Choices for Humankind* (Springer, 2018), 31.

44 The individuation of these two viewpoints, according to Aquinas, 'is clear to anyone who considers the difference between intellect and sense, because sensitive knowledge is concerned with external sensible qualities, whereas intellective knowledge penetrates into the very essence of a thing' (Aquinas, *Summa theologiae*, II-II, 8, 1).

45 Fran O'Rourke, "Evolutionary Ethics: A Metaphysical Evaluation", in *Aristotelian Interpretations*, ed. Fran O'Rourke (Irish Academic Press, 2016), 193. This essay had previously been published in Fran O'Rourke, ed., *What Happened in and to Moral Philosophy in the Twentieth Century? Philosophical Essays in Honor of Alasdair MacIntyre* (Notre Dame Univ. Press, 2013), 323–57.

46 O'Rourke, "Evolutionary ethics: a metaphysical evaluation", 190.

47 Ibid.,193. The Aristotelian sentence is quoted from *Politics*, 1,2,1254a24 and translated by O'Rourke.

Second, 'altruism' is attributed to the biological realm on the basis of *a superficial resemblance* with human altruism, a resemblance which concerns only those aspects that can be appreciated from a physical viewpoint, i.e., the perceptually appreciable consequences of altruistic acts. On the contrary, the remaining aspect, i.e., the *intention*, cannot be attributed to material things and animals, and nonetheless it is the intention with which an act is performed that allows for the evaluation of that act from a moral viewpoint. Killing someone to protect innocent people unjustly attacked is *physically or behaviourally equivalent* to killing someone for money or fun, and nonetheless, from a moral viewpoint, the former does not have anything to do with the latter. The difference is not due to efficient and material causes, which can be appreciated from the physical point of view; the difference in question is caused by the final and formal cause, which can only be seen intellectually. As Aquinas says, acts voluntarily performed are defined by *the intention* with which are performed: 'human acts receive their species from the end'.[48] This means that altruism as it is properly taken in the moral experience of humans cannot be found where no detection of intention is possible. Consequently, it is only by way of *material* or *behavioural* analogy that biological altruism can be given the name of 'altruism'. As O'Rourke says in regard to intelligence,

> it is only by analogy with human behaviour that we speak of animal intelligence. Aristotle credits animals with *phronesis* but never with *nous*. Animals display an estimative power (*vis aestimativa*) or practical intelligence that seems akin to human reason. If we overstretch the analogy, however, the term becomes equivocal and results in ambiguity.[49]

The two considerations I have just drawn from the distinction that the scholars in the field usually make between biological and human altruism converge on the same conclusion: no continuity between these two types of altruism emerges. Intention is essential to altruism (without it, we wouldn't distinguish altruism from other behaviours; what is more, we wouldn't even have a reason for seeking a resemblance between human and what we call 'biological altruism') and nonetheless it is detectable only as to human altruism. Consequently, altruism is ascribed to the biological realm only by way of a superficial resemblance.[50]

Let me now elaborate on this evidential argument by taking into consideration two views that, on the contrary, converge on the idea that a continuity can be shown from a naturalistic viewpoint.

The view I intend to consider first is R. Richards's.[51] He argues against the conviction that the two altruisms in question are different from each other. He mentions this conviction as follows: 'The concept of "altruism" when used to describe a soldier bee sacrificing its life for the nest has a different meaning than the nominally similar concept that describes the action of a human soldier who sacrifices his life for his community'.[52] Then he replies by arguing that

> the term 'altruism' does not retain a univocal meaning even when used to describe various human actions. Its semantic role in a description of parents' saving for their children's education surely differs from its role in a description of a stranger's jumping into a river to save a drowning child. Nonetheless the many different applications to human behavior and the several applications to animal behavior intend to pick out a common feature, namely that the action is directed to the welfare of the recipient and cost the agent some good for which reciprocation would not normally be expected. [53]

Richards's objection highlights the existence of something common between the two types of altruism here under discussion. After all, as I myself said above, a form of affinity between them is undeniable,

48 Aquinas, *Summa theologiae*, I-II,1,3. A. O'Hear opportunely notes that, though we are embodied natural beings, we are conscious and self-conscious, we sort out good beliefs from bad ones: 'That we can and do use norms may be given an evolutionary explanation but *why* we ought to use the norms we do cannot' (Anthony O'Hear, *Beyond Evolution: Human Nature and the Limits of Evolutionary Explanation* (Clarendon Press, 1999), 83).

49 O'Rourke, "Evolutionary ethics: a metaphysical evaluation", 201.

50 An objection that reiterates the one I have taken into account above (see note 10) may here be raised. It may be that there is an evolutionary biological explanation for *why* we consciously form the *intentions* to engage in the many adaptive helping behaviors we engage in. In reply, see the first response I provided in the above mentioned note.

51 Robert J. Richards, "A Defense of Evolutionary Ethics", *Biology and Philosophy* 1, no. 3 (1986).

52 Ibid., 270.

53 Ibid., 276.

and, if there weren't something in common between them, the innumerable debates conducted on this subject would make no sense. That which needs verifying, however, is whether the similarity at hand reveals something that is *essential* to altruism. As a matter of fact, the common aspects that Richards individuates are not sufficient to define the essence of an action from the moral point of view. He does not mention either the end or the form, which, as I noted above, define the action from the moral viewpoint. Richards seemingly does so when he says that the action 'is directed to the welfare of the recipient and cost the agent some good for which reciprocation would not normally be expected'. While referring to biological altruism, however, he *cannot know* either that the animals in question expect or not a reward for their actions or the fact that they are aware that altruism may cost them some good. Yet, Richards includes this in his definition of altruism, because mentioning the expectation and the awareness at hand is crucial to the evolutionary inquiry into morality. Without this mention, attributing 'altruism' to certain processes that are part of the biological world would simply make no sense.

Someone may say that the moral point of view I have mentioned concerns only altruism due to intention and not the biological one which, by definition, concerns only 'the consequences of an action for reproductive fitness'. Consequently, a comparison between the two forms of altruism is not possible from a point of view that applies only to one of them. This objection, however, is self-undercutting. It consists in saying that the moral viewpoint concerns only human altruism. But this is equivalent to saying that there is no continuity between the two forms of altruism at stake, which is precisely the thesis against to which the objection is raised.

The other view I intend to consider is J. Teehan's attempt to ground human morality and religious ethics in biological evolution.[54] For him, 'the basic themes of religious morality conform to the logic of evolutionary morality' and 'the moral teachings of religion can be explained as means of fostering group cohesiveness and encouraging prosocial behaviour'; as a consequence, 'the addition of a divine lawgiver seems logically gratuitous'.[55] For Teehan, religion institutionalized a moral code to promote cooperation beyond kin; especially Christianity, with its message of love and universalism, expanded the in-group from kin to potentially all mankind with the aim of achieving social cohesion in larger complex societies made up of strangers. Moral systems, therefore, are not 'collections of divine commands'; rather, they are 'records of the efforts of various human communities as they struggled to solve the problems of communal life and to create a better society'.[56]

In reply, let me say that the idea that Christian moral teachings are aimed at creating a better society is plausible. It is hard, however, to show that evolutionary processes have been guided by this intention. If the argument I have developed so far is correct, we *cannot* ascribe intentions and aims to biological altruism. As a consequence, while the aim Teehan ascribes to Christianity is correct, there is no reason for claiming that its moral teachings match and reveal aims and intentions that trace back to evolutionary processes.

All said and done, I intend now to confirm the result of the evidential argument that I have just developed by referring to a logical argument, which was first proposed by B. Russell in 1910. According to him, 'if evolutionary ethics were sound, we ought to be entirely indifferent as to what the course of evolution may be, since whatever it is is thereby proved to be the best'.[57] Decades after, A. Flew claimed that 'Russell's argument is decisive against any attempt to define the ideas of right and wrong, good and evil, in terms of a neutrally scientific notion of evolution'.[58]

In other words, if moral acts are due to biological mechanisms, then all of these acts, both selfish and altruistic, are due to the evolutionary process and constitute the goal of evolution, whatever it is. As a result, it is hard to understand how to continue distinguishing selfish interest from common interest or

54 John Teehan, "The Evolutionary Basis of Religious Ethics", *Zygon* 41, no. 3 (2006).
55 Ibid., 769.
56 Ibid.
57 B. Russell, *The Elements of Ethics*, 1910, quoted by Antony Flew, *Evolutionary Ethics* (Macmillan, 1967), 44.
58 Flew, *Evolutionary Ethics*, 45.

other people's interest. The actions that are usually seen as morally 'good' should be considered equivalent to those that are seen as 'evil', which is openly contradictory.

Before focusing on two objections that can be raised to this argument, let me say that this argument undermines Teehan's conviction that religion, being a product of evolution, plays a crucial role 'in grounding moral obligation on a large scale'.[59] In our societies, which are 'incomparably larger and more complex than those that first forged the bond between religion and morality', especially Christianity seems to implement large-scale cooperation and to promote love and universalism, as well as exclusivism and violence.[60] As a consequence, Teehan's claim is that, although religion seems to be 'downgraded' because of its being the product of an evolutionary process, it allows us to justify the existence of moral commitments on an extensive scale. However, if the logical argument which is here under consideration is correct, the very existence of such commitments and the distinction between good and evil that it implies appear to be implausible. Teehan can explain the psychological mechanisms of moral teachings and can therefore argue that those teachings can ultimately be explained 'as means of fostering group cohesiveness and encouraging prosocial behavior'.[61] But it remains to be explained why such teachings are considered 'good' and preferable to their negation, which is instead considered 'evil'.

Let me now consider the two abovementioned objections against the logical argument at hand.

First, not necessarily *all* moral actions, once grounded in biological evolution, are part of the evolutionary process. Some actions may be due to unforeseeable circumstances and constitute momentary deviations from the process in question. As such, they should be considered biologically and morally 'evil', and the argument that no distinction between good and evil acts can still make sense would consequently be rebutted.

In reply, it can be said that this objection should be considered untenable, because, from the viewpoint of evolution, everything occurs, including momentary deviations, should be part of the evolutionary process. For the sake of argument, however, I will suppose it to be tenable. I will then reply by pointing out that this objection could prove to be true only in case it were possible to evaluate any single action. This in fact would allow us to understand whether or not any single action is consistent with the principle of natural selection and survival. Evaluating any single action, however, does not seem to be possible, because natural selection and survival are long-term processes, only at the end of which can the indefinitely long series of previous actions be evaluated (see above, note 10).

Second, one may object that Russell developed his logical argument to respond to the evolutionary ethics of H. Spencer. It was grounded on a progressive view of evolution in which species are evolving towards objectively better states and which led to the conclusion that *whatever is adaptive is good*. But contemporary evolutionary ethics doesn't operate in this way. Rather, in many (if not most) cases it is an attempt to give explanations for why we have the kinds of moral beliefs we have and it is sometimes used to support certain sorts of meta-ethical claims and to argue against the objectivity of ethics.[62] Ruse and Wilson claim that Darwinian evolutionary theory shows that 'right' and 'wrong' are the outcomes of ultimate biological processes,[63] and R. Joyce says that our ancestors formed beliefs about rightness and wrongness because it was 'useful', and that this occurred 'independently of the existence of rightness and wrongness.'[64]

59 Teehan, "The evolutionary basis of religious ethics", 769f.

60 Such a coexistence, so he claims, is shown by the typically Christian conviction that 'anyone can be a Christian but only Christians may be saved' (John Teehan, *In the Name of God: The Evolutionary Origins of Religious Ethics and Violence* (Wiley-Blackwell, 2010), 168).

61 Teehan, "The evolutionary basis of religious ethics", 769.

62 Again, I thank J. Lemos for inviting me to take into account such a relevant objection.

63 See Michael Ruse and Edward O. Wilson, "Moral Philosophy as Applied Science", *Philosophy* 61, no. 236 (1986), 179.

64 Richard Joyce, *The Evolution of Morality* (MIT Press, 2006), 183.

I may respond by appealing to some rebutting arguments against this view.[65] However, I prefer to notice that from this view a consistent employment of 'rightness' and 'wrongness' does not follow. The very Ruse, for example, seems to ascribe full objectivity to the opposition between 'good' and 'evil' as well as 'right' and 'wrong' when he claims that not only *ignorance* but also *vanity* lead to the conviction that human reason has a privileged status (see above, note 1).

IV. CONCLUSION

In the first section of this essay, I argued that there is a *partial continuity* between the non-human world and the human experience. In both of them, self-interest and altruism seem to coexist. This coexistence brings with it struggle and sorrow if its poles grow in inverse proportion to each other. It becomes perfect, on the contrary, if its poles are harmonized with each other, i.e., if they grow proportionally. Self-sacrifice and self-interest grow in direct proportion to each other on the basis of the theological view that giving one's life for the sake of others implies one's own flourishing. It is, therefore, God's supernatural intervention that, in line with the tenet that grace does not destroy nature but perfects it, perfects the coexistence of self-interest and altruism. This coexistence belongs to both the non-human and human world, which shows that there is continuity between them. At the same time, however, this continuity is *partial* because a supernatural intervention is required to perfect the coexistence in question.

In the second section, I argued that, from a non-theistic or naturalistic point of view, *full continuity* or continuity properly so-called between biological and human altruism proves to be implausible. My argument, which is an evidential argument, shows that what may be common to those two forms of altruism does not concern the essential, i.e., their nature does not appear to be the same. I then confirmed the result of this evidential argument by referring to a logical argument, which was first developed by B. Russell. It shows that once the full continuity between the two forms of altruism is accepted, that is, once it has been accepted that altruism is ultimately due to biological factors, it is hard to continue maintaining that there is a distinction between moral good and evil.

In this way, I highlighted a contrast between two approaches to the topic under discussion, a non-theistic or naturalistic and a Christian theistic approach. I showed that this contrast is not a very sharp one, because in both cases continuity properly so called between the two forms of altruism in question is denied. The contrast is due to the fact that in the sole case of the Christian theistic approach a partial continuity is affirmed. This resembles the well-known evolutionary argument against naturalism (EAAN) proposed by A. Plantinga.[66] According to EAAN, the coexistence of evolution and (metaphysical) naturalism is highly improbable since from this coexistence it would (equally) highly improbably follow that our cognitive faculties are reliable, including when they are employed in support of the naturalistic evolutionary process. In the same vein, the treatment I offered in this essay is aimed at showing that a naturalistic approach to evolutionary ethics seems less able than a theistic one to argue for (even only partial) continuity between biological and human altruism. This may reinforce a more general claim, i.e., evolution in itself is tenable, while its combination with naturalism is not.[67]

65 M. Peterson, for example, argues that a naturalistic view such as the one championed by Ruse, Wilson and Joyce, seems unable to develop an appropriate scientific exploration of reality. For him 'science must assume, but it cannot by its own methods establish, that there is a law-like, intelligible world and that rational enquirers can investigate and know it with increasing accuracy'. However, science 'must rest on philosophical foundations — foundations that are more obviously entailed by a theistic worldview than by a naturalist worldview' (Peterson, "*A Theological Evaluation of Evolutionary Ethics*", 287).

66 See Alvin Plantinga, *Warrant and Proper Function* (Oxford Univ. Press, 1993), 216–238.

67 Many thanks to Daniele Bertini, David Grumett, John Lemos, Stephen Pope and Paul Rezkalla for comments given on a first draft of this essay.

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