Human Evolution and Christian Ethics: A Critical Appropriation

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and for the whole of the created order. This purpose can only be accomplished to the extent to which we cooperate with the divinely willed healing, ordering and transforming of our natural capacities so that they can promote the proper love of God and neighbor. The church exists in order to embody, facilitate, and bear witness to a process that hopes we become "new creatures" (2 Corinthians 5:17).

Many Christians have been suspicious about claims made about human evolution, and for a variety of reasons; in my opinion some of these are legitimate and others unnecessary. There is, for one thing, a lot of confusion over the meaning of "evolution" itself.

We can distinguish three meanings of evolution: as fact, as scientific theory, and as ideology.

First, the fact of evolution concerns the course of natural history. The distinguished evolutionary biologist Francisco Ayala describes the evolutionary origin of species is a "scientific conclusion established with the kind of certainty attributable to such scientific concepts as the roundness of the Earth, the motions of the planets, and the molecular composition of matter. This degree of certainty beyond reasonable doubt is what is implied when biologists say that evolution is a 'fact'; the evolutionary origin of organisms is accepted by virtually every biologist."[1]

Second, the scientific theory of evolution concerns how to provide the best explanation for the fact. Darwin proposed a theory of the origin of species via "descent with modification." His key contribution was the claim that the origin of species lies in "natural selection" working on biological variations in the species, not in the direct

[1] Francisco J. Ayala, "Biological Evolution," in Miller, ed., An Evolving Dialogue, p. 18. See also his Darwin's Gift (National Academies Press, 2007).

intervention of a divine Creator.[2] In the 1930s the "modern synthesis" combined Darwinian natural selection with Mendelian or genetic inheritance. There are today multiple scientific "theories" seeking to account for evolutionary processes, but all build on Darwin's accomplishment.

Finally, the ideology of evolution attempts to draw various social, economic, moral and political claims on the basis the fact and/or the theory of evolution (or both). Darwinism has been put to use by right wing ideologies to support eugenics, euthanasia, laissez faire economic policies, and Nazi aggression. It has also been invoked by what Peter Singer calls his "left wing" utilitarian Darwinism[3] to justify, among other things, abortion, euthanasia, and infanticide.[4] It is critically important, though, to recognize the difference between scientific work on human evolution and the uses to which it might be put. Christian avoidance or rejection of evolution is most often rooted in repugnance for its ideological misuses

This point is often put in terms of reductionism. Contemporary Christian ethics generally reject not evolution as such but its helpfulness for understanding human morality in general and the way of life of the Christian community in particular. Christian ethicists emphasize the ways that identity is shaped by the rituals and normative narratives of one's tradition, yet Christian ethicists can themselves be guilty of their own

[2] Ernst Mayr points out that the term "Darwinism" has been used in multiple and often not consistent ways. He identifies nine major uses of the term, most of which are misleading or inaccurate. See One Long Argument, ch. 7. Mayr proposes that the most meaningful nineteenth century use of term refers to "explaining the living world by natural processes" and the most meaningful recent use concerns "adaptive evolutionary change under the influence of natural selection, and variational instead of transformational evolution." Ibid., p. 106. By "variational" evolution he means the "orderly change in a lineage over time, directed toward the goal of perfect adaptation" (ibid., p. 93).

[3] See Peter Singer, A Darwinian Left: Politics, Evolution, and Cooperation (New Have: Yale, 2000).

[4] See Singer, Practical Ethics

Evolutionary ontological reductionists ironically share with "scientific creationists" a tendency not to distinguish properly scientific from philosophical claims. Popular evolutionary writers frequently blur the lines between methodological, epistemological, and ontological reductionism, and use their scientific authority to pronounce on ontological issues. Thus Richard Dawkins, a professor of zoology at Oxford University, for example, writes that: "The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but blind, pitiless indifference. . . DNA neither knows nor cares. DNA just is. And we dance to its music."[7]

The methods of the natural sciences do not require this kind of radical reductionism. Christian theology should not have no objection to the methodological reductionism practiced by scientists, but it can accept neither epistemological nor the ontological reductionism.

Christian ethics should be receptive to evolutionary findings and hypotheses when they are detached from radical reductionism. The notion of "emergent complexity" has been developed to describe the functioning of living systems in a way that avoids inappropriate reductionism. As theologian-physicist Ian Barbour puts it, "A living organism is a many-leveled hierarchy of systems and subsystems: particle, atom, molecule, macromolecule, organelle, cell, organ, organism, and ecosystem. The brain is hierarchically organized: molecule, neuron, neural network, and brain, which is in turn part of the body and its wider environment."[8] Living systems abide by fundamental

[7] Richard Dawkins, River Out of Eden: A Darwinian View of Life (Basic Books, 1996), p. 133.
[8] Ian Barbour, "Neuroscience, Artificial Intelligence, Human Nature," in Russell, et al., Neuroscience and the Person, p. 269.

physical and chemical laws, but these laws represent necessary but not sufficient conditions for the functioning of higher-level entities.

The evolution of morality

Some prominent neo-Darwinians argue that morality exists in all cultures because it serves a biologically adaptive purpose. Rather than deliberately "implanted" in the soul through special divine act, the need to establish morality in groups came with our social evolution. E. O. Wilson, for example, speculates that specific norms, e.g., regarding marriage, property, or truth-telling, provide "fitness benefits" for those who adhere to them, or at least for those who promote them in others.[9] Compassion, he holds, "conforms to the best interests of self, family, and allies of the moment."[10] In the long run, fitness is best promoted by internalizing norms that resist crude ways of pursuing self-interest and instead elicit trust, loyalty, and cooperation.

Others have insisted that it is a mere by-product of adaptive traits like sociality and intelligence. Ayala argues that morality did not evolve because it was adaptive in itself, but rather as the "indirect outcome" of the evolution of eminent intellectual abilities such as foresight, evaluation, and choice.[11] Primatologist Franz de Waal, finally, holds that we have evolved as social animals to need reasonable degrees of order in community, widely shared moral standards that can organize interactions in a way that minimizes conflict, reliable ways of identifying property ownership, commonly held arrangements regarding mating and the rearing of children, and some trust that the

community will provide justice in cases of intra-communal conflict and adequate defense in the face of inter-communal conflict.[12]

Christian ethics can profit by recognizing the functional value of morality without presuming that morality is only meaningful for its social functionality. Evolutionists who write about the evolution of morality often do so in a debunking mode, as if morality were either nothing but a social convention superimposed on selfish biological human nature. Yet in principle there seems to be no reason why an evolutionary account of the origin of morality should necessarily discredit morality.

It is not far fetched to think that evolution has shaped some of the important levels of our emotional and cognitive constitutions as human beings. At what point morality actually emerged from social life is hard to say, and no one has been able to give a convincing argument that "explains" the origin of morality. A common hypothesis is that, during the course of the evolutionary past, emergent social conventions reflecting forms of patterned reciprocity generated a tendency to monitor compliance, to guard against attempts to subvert dominant arrangements, to retaliate against cheats, and to internalize social conventions. At some point, De Waal maintains, fear of being caught and punished was complemented in our motivational repertoire by the operation of a distinctive "moral sense" that obligates us to "do the right thing" for its own sake.[13]

naturally predisposed to learn some things more easily than others. Natural proclivities play a role in loyalty to one's own group more than to others, for example, altruism to kin more than strangers, to reward those who cooperate and to punish those who violate reciprocity, and, generally, to treat others the way they treat us. Particular communities at particular times and places attach moral valuation to these preferential tendencies, some channeling parental investment in one direction, toward immediate offspring, others in another direction, toward overlapping care-giving within an extended family.

This general pattern in some ways accords with the classical position of Aristotle and Thomas Aquinas, who held that each child is born with a range of fairly indeterminate natural abilities, powers, or capacities that are gradually shaped by training, instruction, and habituation to become the adult's "second nature," i.e., the virtues or vices that constitute character.[14] These kinds of biologically-based psychological predispositions tend to be "open programs"[15] that are fairly general in their directionality. This generality might indicate why we have such a wide variety of moral codes between cultures and throughout history.

Evolutionary accounts of the biological roots of morality have at five implications that are significant for Christian ethics. The first and most obvious point of contact concerns the natural law tradition. This tradition holds that natural inclinations that human beings share with other animals are not only biologically significant, but also morally good when rightly ordered. Evolutionary perspectives underscore the fact that we are psycho-somatic unities, not isolated ethereal souls only artificially attached to

[14] See Nichomachean Ethics, 331102b15-1103b25, and Summa Theologiae I-II, 49-54.
[15] Mayr, Towards, p. 26.

material bodies, whose ordered human inclinations have a substantial role to play in the good life.

Second, understanding more fully what might be the

biased toward members of their own groups and away from outsiders, and to rationalize self-serving behavior through morality. It also recognizes kin bias, in-group favoritism and out-group prejudice.

Christian ethics preaches ethical universalism—that every person is neighbor—but it seems to be the case that the actual practice of real people, including those who are churchgoing, is closer to the world described by sociobiology than it is to the way of life depicted in the Sermon on the Mount. Yet Christian ethics understands the roots of immorality in religious rather than natural terms – the sinful distortion of mind and heart –but it can take from evolutionary studies a more acute understanding of the context of the human fault.

Finally, understanding the "evolutionary roots of morality" allows us to see more clearly the possibility of transcending the constraints our evolutionary past. We do not have unlimited freedom, Damasio writes, but we "do have some room for such freedom, for willing and performing actions that may go against the apparent grain of biology and culture."[20] Our species-wide proclivity to promote one's inclusive fitness is subject not only to delay and redirection but even to abandonment by all sorts of people — e.g., missionaries and utopians, artists and poets, prophets and mystics — because of what they consider to be warranted by greater goods.

<u>The evolution of altruism</u>

Neo-Darwinians have expended a considerable amount of energy arguing that biological altruism—promoting another organism's fitness at some expense to one's own

biological altruism are said to be derived from the theory of kin selection and reciprocity theory; some neo-Darwinians also invoke manipulation and others group selected altruism. In these cases, behavior that seems to be altruistic in the common sense use of the term turns out not to be altruistic at all. A parent who expends resources on an offspring is actually just being selfish in a genetic way because parental care promotes the survival of copies of one's own genes in the next generation. Sociobiology attends not only to direct offspring but also to collateral relatives, so J. S. B. Haldane is known to have said, that, "I would lay down my life for two brothers or eight cousins."[21]

In any case, what is Christian ethics to make of the claim that altruism cannot have been the product of biological evolution and that in fact we have evolved to give preference to family members over non-kin, to people who reciprocate over those who do not, and to members of our own groups as opposed to outsiders? It is hard to argue with this as a simple factual description of how people in general tend to act; evolution seems to offer a reasonable proposal for why this would be the case: indiscriminately altruistic ancestors who did not act this way tended, over the long haul, not to be as reproductively successful as those who did. Sociobiologists and evolutionary psychologists have thus typically regarded Christian love or agape is a recipe for extinction.

I would like to make five points by way of a Christian ethical response to these claims. First, the normative core of Christian love comes from the Scriptures, the tradition, and their ongoing interpretation. Christian ethics of love is not justified by scientific knowledge of human evolution, and evolution does not provide an ethical

[21] Cited in Mary Midgley, "The Service of Self and the Service of Kali," in The Essential Mary Midgley, ed. David Midgley (Routledge, 2005), p. 263.

circle of family, friends, and more intimate groups outward to more remote others. In some way, familial love can be and perhaps usually is the basis for more extended care.

The Christian community encourages us to expand the depth and breadth of what comes to us naturally, and to go beyond the affective and moral limits that typically mark human nature. Grace as "perfecting" nature involves a twofold function of both healing what is wounded in our nature and extending our agency beyond where we would naturally go. The good Samaritan is a paradigmatic case of what it means to be neighbor to an enemy. The sight of the bloody victim engaged his natural capacity for empathy but his compassion led him to treat his enemy as a friend.

Fourth, the claims of justice obligate us beyond the normal limits of love as an affection or social bond. We seem naturally predisposed to form affective ties with a number of intimates, to develop real but less intense affective ties with those with whom we have some social connection, and to feel little connection toward those with whom we have little in common. These limits to love and altruistic concern make absolutely necessary the virtue of justice, including subsidiary or related notions of impartiality, fairness, and human rights.

Fifth, this leads to what I think is the central ethical alternative to an "ultra Darwinian"

world regularly practice "in-group morality" and "out-group immorality." Just as it tends to exaggerate our natural self-preference, our individualistic culture also seems to aggravate in-group preference.

The moral challenge for Christian ethics (and most other forms of ethics) is to break through our typically narrow moral comfort zone, the conventional morality of care for the nearest and dearest, into a greater concern for and action on behalf of the needy, the poor, and the marginalized. Solidarity essentially means identifying with those who struggle to overcome some kind of unjust suffering. It involves what Dietrich Bonhoeffer called taking the "view from below:" "We have for once learned to see the great events of world history from below, from the perspective of the outcast, the suspects, the maltreated, the powerless, the oppressed, the reviled—in short, from the perspective of those who suffer… We have to learn that personal suffering is a more effective key, a more rewarding principle for exploring the world in through and action that personal good fortune."[23]

This is a challenge of solidarity rather than compassion alone because we tend to overly-individualize compassion, to sentimentalize it, to reduce it to being

rather than to act paternalistically on their behalf and in way that perpetuates the separation of the "haves" and the "have-nots." The ideal of solidarity accents cooperation more than competition and it is made possible by caring and inclusive communities. It calls us to go beyond the "imperatives of our genes" and to use our evolved emotional, cognitive, and social capacities in a way that is self-transcending. This commitment in turn depends on the hope that grace can lead us to direct and even go beyond where nature itself might take us.

Human dignity

The single most objectionable aspect of neo-Darwinism is its tendency (perceived by both proponents and opponents) to undermine human dignity. The core issue is common descent: if we are descendents of apes, Darwin's critics argued, then we are no better than monkeys. If we are only one species among others, then we have no special dignity and vulnerable people can be used as instruments of the powerful.

I would like to argue that awareness of common descent need not threaten our commitment to human dignity and that it can in fact even enhance our sensitivity to human dignity. Our dignity is related to the emergence of distinctively human traits for knowing, loving, and exercising responsibility. Yet the affirmation of human dignity comes from a religiously based vision of the human person rather than from a scientific assessment of the traits of our species in relation to the traits of other species. The intrinsic value of the person is "underdetermined" by science generally, certainly by evolutionary biology and its allied disciplines. While some readings of evolution have been used to support human dignity, and others to attack it, the point of controversy rests most fundamentally with the ontology and theology rather than with science.

I would like to make four additional points about the Christian affirmation of human dignity in light of human evolution.

First, we should not confuse the dignity of the person with the dignity of various traits. In the past the tradition has identified various qualities that were indications of this dignity, e.g., the presence of the "intellectual soul" in Thomas Aquinas' theology or the image of the Trinity in the human mind for Augustine. Christian ethics regards the person as loved and dignified and not simply the person's specific traits. Human nature has an intrinsic dignity and so do all who partake in it, regardless of the extent to which they instantiate or manifest the various traits that give humanity its special nobility. In Christian morality, mentally handicapped people have the same dignity as geniuses, the lame as Olympic sprinters, and the demented elderly as the most alert young person.[24]

Some contemporary discussions of human dignity value a particular criterion or value, notably rationality or consciousness, more than humanity itself. Some Artificial Intelligence experts value cognitive skills in the same way. One bioethicist argues that we need to distinguish "persons" in the proper sense of the term, i.e., those who are self-conscious, rational, and morally autonomous, from "human biological life" in the broader sense, e.g., fetuses, embryos, comatose patients, the profoundly mentally handicapped, etc.[25] Christian ethics needs to retain its affirmation of the equally intrinsic value of every member of the human race. In this way Christian ethics remains centrally grounded in the narrative and teachings of Jesus.

Second, an expanded sense of our continuity with other species and our interdependence with ecospheres, and in fact our dependence on the planet as a whole,

[24] See Jean Vanier, Becoming Human (Mahwah, N.Y.: Paulist, 1998).
[25] See H. T. Engelhardt, The Foundations of Ethics (New York: Oxford University press, 1996), p. 138.

cannot help but heighten our sense of responsibility for the natural world. The claim that the human person is made in the image of God can no longer be interpreted in a way that valorizes human dignity to the exclusion of the well-being of other animals. Whatever the proper exegesis of the first chapter of Genesis, the notion of our "dominion" on the earth must be interpreted to mean stewardship and care of nature rather than its domination and

and promoting their human dignity. The protection of human dignity is best pursued when society and state recognize the legitimacy and value of smaller units of interaction such as families, churches, unions, and other intermediate associations, while the latter also acknowledge their role within the wider society and body politic.

Fourth and finally, the church best counters Darwinian ideology through upholding human dignity in practical ways, both external and internal.

First, the external agenda pertains to how the church might most effectively promote dignity in pluralistic societies. The phrase "human dignity" has very powerful affective overtones. In practical action, consensus over how to support human dignity, whether affirmed for secular or theological reasons, can provide a powerful moral support for particular public policies.

Yet from a perspective in Christian ethics it may also be the case that the full defense of human dignity, as John Paul II held requires the acknowledgement of both "the spiritual destiny of the human person … and the moral structure of freedom."[27] The church has functions within pluralistic societies where there may not be widespread consensus as to how best to promote human dignity, a theme that can actually divide people who disagree over what is consistent with and what violates human dignity. The church in this kind of context must proceed with an attitude of respect, openness, and humility rather than in the spirit of denunciation, self-righteousness, and moral superiority—

Darwinian" Peter Singer, is going to think differently about the value of unborn life by being called a proponent of the "culture of death."

Second, Christian ethics also faces an important internal challenge regarding human dignity. The church in our time has at times functioned as a great defender of human rights around the world, and particularly for the rights of people suffering under totalitarian regimes. At other times, of course, it has failed to meet the challenge of justice. The church's beautiful pronouncements about the dignity of the all persons are not always applied in its own internal life and she does not always treat her own members in a way that accords with their dignity as human beings. Especially prominent here the church's treatment of women, people who are gay or lesbian, and Catholics who are divorced and remarried.

The challenge of truly recognizing and publicly supporting the dignity of these people must be met if the church is to live up to her own message that every human person is made in the image of God. The most effective response to ontological naturalists is not only to critique their conceptual shortcomings but rather also to exhibit in practical and unambiguous ways, the truthfulness of the gospel and the love and justice that it inspires. It is a simple but clear truth to say that the best case for Christian ethics in our world is presented by those whose actions reflect the gospel. In this way it will accord with Bonhoeffer's suggestion that the gospel calls us to view the world "from the perspective of the outcast."

Conclusion

This presentation has attempted to relate Christian ethics to some of the key notions in evolutionary accounts of the origin of morality, the evolution of altruism, and

the status of human dignity. It argues that Christian ethics ought to be highly critical of evolutionary theories when they are predicated upon epistemological and/or ontological reductionism, but that it has nothing to fear from science per se. Indeed, going further, it maintains that Christian ethics can be positively enhanced by taking seriously the evolutionary suggestion that morality exists because it provides benefits to human communities, that sociality, cooperation, kin altruism, and reciprocity evolved because they served elemental human needs, and that evolutionary knowledge of our emergent emotional, intellectual and social capacities can supplement (if not properly warrant) Christian affirmation of the dignity of the person. The general strategy of critical appropriation enables Christian ethics to learn from evolutionary theory and thereby to avoid the problems of cultural reductionism, on the one side, and biological reductionism, on the other. In this way, moreover, Christian ethics can continue to be faithful to the classical Christian affirmation of the unity of faith and reason.