CHAPTER TWO:

THE COMPATIBILITY OF CHRISTIAN ETHICS AND EVOLUTIONARY ETHICS

2.0 Introduction

It was demonstrated in the previous chapter that the 'traditional' theological framework for understanding good and evil, and hence, ethics, is challenged in a number of ways by evolutionary theory. This chapter will now make a turn towards a more specific comparison between Christian ethics and an evolutionary framework for understanding ethics. Ultimately, it will be argued here that Christian ethics and evolutionary ethics can co-exist. However, immediately a caveat surfaces, as a clear understanding of what both 'Christian ethics' and 'evolutionary ethics' entail in this context needs to be chosen and argued for. Wide-ranging and often conflicting ethical stances have been adopted by different churches which identify themselves as 'Christian', for example just-war theories and pacifism, which seem to conflict. Therefore, it is necessary to articulate what I take to be 'Christian ethics' in this context. In this regard, it is outlined in section 2.1 that in this thesis, Christian ethics has three distinct characteristics; moral freedom, *agape* and neighbourly love, and natural law. Of course it is not contested that these three characteristics are all-encompassing, exhaustively definitional attributes of Christian ethics in any context, nor are they exclusive to Christianity. Indeed a Christian ethicist may very well challenge either the importance or particular meaning I attribute to these tenets of Christian ethics.

Yet these characteristics, and a particular understanding of them, have been chosen to provide a functional definition of Christian ethics in order to address a comparison with evolutionary understandings of ethics. That being said, this threefold representation of Christian ethics is not arbitrary but drawn from important theological traditions: moral

freedom I take in part from theologians of the early Church such as Augustine and Pelagius, and in part from philosophy; *agape* and neighbourly love I take in part from reflections on the Gospels, and in part from liberation theologies; and natural law I take in part from Aquinas, and in part from subsequent reflections upon Aquinas.

Having established what is implied by 'Christian ethics' then, in order to compare this with evolutionary ethics, a particular reading of what is understood by 'evolutionary ethics' must also be outlined. This will be addressed in section 2.2. Evolutionary ethics will be understood as the attempt to explain from an evolutionary perspective the origin and nature of ethics/moral behaviour. This task has been an important element of the field known as sociobiology – though sociobiology is not solely concerned with morality but with all social behaviour, and not just with humans but with insects and other animals also. Of specific concern in this context is human morality, how it evolved, and whether or not such an evolutionary understanding of human morality conflicts with a Christian understanding of morality.

It must be acknowledged at this point that the field of sociobiology can be problematic. Sociobiology or evolutionary ethics as I understand it, assumes in the first instance that our genetics play an important role in our behaviour. Yet the question remains over exactly how influential our genetics can be. This is pointed out by philosopher Philip Kitcher, who acknowledges the uncontroversial claim that our behaviour is influenced somewhat by our genetics, though questions how proximate such causes are.[155] He also questions the appropriateness of attempting to understand human behaviour directly in terms of evolutionary benefit, whether such explanations overlook the importance of social practice, and indeed what contribution such studies can make to a grand analysis of human

[155] Philip Kitcher, *Vaulting Ambition: Sociobiology and the Quest for Human Nature*, (Massachusetts: MIT Press, 1985) p. 282

social behaviour.[156] Notwithstanding, as philosopher of biology Michael Ruse explains, although intensive investigation is still ongoing, "the evidence is strong that the genes, as promoted by natural selection, do have a significant causal input into human social behaviour, and consequently, into culture."[157]

Further critiques of sociobiology have been posed by philosophers such as Bart Voorzanger who suggests that sociobiology can be highly speculative and prejudiced; sociobiology is influenced by socio-political motivations and merely presented in a scientific way.[158] Sociobiology can be seen as emerging from a context or paradigm with socio-political motivations thus limiting the neutrality of its conclusions – a critique reminiscent of Thomas Kuhn's depiction of science *en masse*.[159] Whilst these cautionary critiques are acknowledged, I follow Ruse in asserting that sociobiology or indeed its parent Darwinian theory, is not always value-laden to the point where its core themes are not substantive; the fact that scientific or philosophical theories may be value-laden does not discount their legitimacy.[160] Despite potential socio-political motivations, sociobiology can be considered to bring important insights into human nature and human morality. Evolutionary ethics as I understand it – that is, an understanding of ethics from an evolutionary perspective rather than ethical discourse informed by evolution – will therefore be outlined in section 2.2.

Attention will then be given to a comparison of the two systems – though such a comparison is not necessarily balanced. It is acknowledged that the overarching asymmetrical metaethic of a primordial good and conspicuous evil explored in the previous chapter must be reconsidered in light of evolutionary theory. Such a reconceived metaethic will be sketched in the following chapters, though presently, it will be considered how

[156] Ibid., pp. 283-284
[157] Michael Ruse, *The Darwinian Paradigm: Essays on its History, Philosophy and Religious Implications*, (London: Routledge, 1999) p. 253
[158] Bart Voorzanger, 'No Norms and No Nature – The Moral Relevance of Evolutionary Biology', *Biology and Philosophy*, 2.3 (1987) p. 265
[159] Thomas Kuhn, *The Structure of Scientific Revolutions*, (Chicago: University of Chicago Press, 1996) p. 210 [Originally published 1962]
[160] Michael Ruse, *Evolutionary Naturalism: Selected Essays*, (London: Routledge, 1995) p. 257

evolutionary ethics may be perceived to conflict with the three tenets of my understanding of Christian ethics. Particular aspects of evolutionary ethics may be seen to impinge on human freedom, *agape* and neighbourly love, and natural law, and these perceived conflicts will be articulated in sections 2.3-2.5 respectively. However, I will argue that these conflicts only arise as a result of certain misunderstandings of evolutionary ethics; once issues such as the role of human consciousness and emergence are taken into account, then apparent contradictions between Christian ethics and evolutionary ethics can be understood to be erroneous. Once these conflicts have been overcome, it can then be stressed that the two systems can co-exist. Establishing the potential co-existence of these two systems is the goal of this chapter, which will make headway towards the central argument of this thesis; that evolutionary ethics can contribute to a theological or Christian worldview and provide hope in a seemingly nihilistic world.

2.1 An Understanding of Christian Ethics

In this chapter, it will be argued that evolutionary understandings of ethics are not inimical to Christian ethics. 'Christian ethics', however, is an extremely broad term; it could even be argued that there is no single 'Christian ethics'. For example, various religious denominations which identify themselves as Christian not only approach particular moral issues differently, e.g. homosexuality, but also derive their 'Christian ethics' from different sources, e.g. scripture, magisterium or various amalgamations of different sources. Moreover, as I have argued elsewhere, even within particular Christian traditions such as Catholicism, there often exists diverse approaches to moral issues such as homosexuality, celibacy, divorce, etc.[161] Therefore, in order to demonstrate how evolutionary understandings of ethics are compatible with, or at least not intrinsically disagreeable to

[161] See Gary Keogh, 'Dissent and The Communion of the Church', *Doctrine and Life*, 63.1 (2013)

Christian ethics, it needs to be clearly stated what is meant by 'Christian ethics' in this current context. In approaching the question then, of the potential compatibility of evolutionary ethics and Christian ethics, three distinct aspects of Christian ethics will be considered; i) moral freedom, ii) *agape* and neighbourly love, and iii) natural law. Perceived conflicts between the two systems can be discerned with respect to these three aspects of Christian ethics – though ultimately, it is contested that these conflicts have weak foundations upon a closer analysis of evolutionary understandings of ethics. Furthermore, ambiguity also pervades each of these three themes and they could each be interpreted in a variety of ways. Therefore, each of the three themes must be further explained in terms of what they are taken to mean in this context.

2.1.1 Moral Freedom

The concept of free will can be understood as equivocal, evident in its multifarious interpretations in philosophical thinking; Descartes for example, considered that *liberum arbitrium* or the ability to choose was so free that it could never be constrained, whilst Thomas Hobbes was less enthused about free will, noting that while actions are voluntary, unimpeded liberty would contradict the liberty and omnipotence of God.[162] Moreover, difficulties emerge in positing free will as a consideration for moral actions given that there is no *a priori* reason to assume that freedom can be clearly demarcated from non-freedom; a view of moral freedom will be defended in Chapter Five, which considers freedom as a matter of degree rather than an extrinsic quality in itself; actions may be considered more free or less free, not necessarily free or not free. Free will is thus difficult to consider categorically.

[162] René Descartes, *The Passions of the Soul*, trans. Stephen H. Voss, (Indianapolis: Hackett, 1989) p. 49 [Originally published 1649]; see also, Thomas Hobbes, *Leviathan*, Richard Tuck ed., (Cambridge: Cambridge University Press, 1996) p. 147 [Originally published 1651]

Within Christian theology itself, varying positions with regard to free will also exist, for example the debate between Augustine and Pelagius on the issue of whether humans were completely free (Pelagius) or without grace unable to will the good (Augustine).[163] In addition, as the American theologian Eleonore Stump explains, "Historians of philosophy read Augustine on free will so variously that it is sometimes difficult to believe they are reading the same texts."[164] Stump explores various scholarly attempts to formulate definitions of Augustine's position on free will, none of which can be considered either exclusive or exhaustive.

Notwithstanding, as stated in section 1.4.1, moral freedom is an important element of theological appreciations of ethics. Whatever ambiguities exist pertaining to the issue of freedom, it is essential that actions be free in some sense in order for them to have moral worth. This is not to suggest that determinism mitigates freedom, or question whether a mitigated freedom subsequently mitigates the moral worth of actions – one could for example, acknowledge determinism yet still morally judge actions based on particular determining factors. Philosopher Harry Frankfurt considers such a view – that actions can be judged based on determining factors (he distinguishes between actions based on first or second order desires).[165] Yet even on this view, he acknowledges a mode of freedom attributed to humans premised on our ability to form second order desires and have a choice between first and second order desires.[166] Therefore, it can be stated that in order for moral actions which are morally consequential – that they result in either good or evil – to be distinguished from amoral but morally consequential actions, e.g. the moving of tectonic plates causing evil, a form of freedom must be present, however one understands such freedom – again, a particular understanding of freedom will be defended in Chapter Five.

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[163] Alister McGrath, *Christian Theology*, pp. 443-444
[164] Eleonore Stump, 'Augustine on Free Will', Eleonare Stump and Norman Kretzmann eds., *The Cambridge Companion to Augustine*, p. 124
[165] Harry Frankfurt, 'Freedom of the Will and Concept of A Person', *Journal of Philosophy*, 68.1 (1971) p. 6
[166] Ibid., p. 7

Consequently, despite the difficulties in considering free will, we can proceed under the assumption that some form free will does exist and that humans are responsible moral beings. This freedom is enough to allow for intelligible moral discourse. Moral freedom is a prerequisite for there to be any distinction between good and evil; at the risk of oversimplifying, if freedom did not exist, then actions could not be considered morally good or morally evil; they would be amoral, as no alternative would be possible. Alvin Plantinga explicates this premise in the following passage:

> A world containing creatures who are significantly free (and freely perform more good than evil actions) is more valuable, all else being equal, than a world containing no free creatures at all. Now God can create free creatures, but He can't cause or determine them to do only what is right. For if He does so, then they aren't significantly free after all; they do not do what is right freely. To create creatures capable of moral good, therefore, He must create creatures capable of moral evil.[167]

Moral freedom, then, is taken here as an example of a cardinal characteristic of Christian ethics. It is an example of an aspect of an ethical view (though one not specifically Christian or theological) which could be perceived as a source of conflict between evolutionary ethics and Christian ethics.

2.1.2 Agape and Neighbourly Love

The second characteristic of Christian ethics as it is understood in this chapter is the notions of *agape* and neighbourly love. Like the issue of free will, Christian neighbourly love is a concept which has been filtered through diverse hermeneutical funnels, often diluted and applied selectively in various situations. Jesus' great commandment "love your neighbour as yourself" (Matt.22:39) is not unique or original; it echoes Leviticus (19.18), "You shall not take vengeance or bear a grudge against any of your people, but you shall love your

[167] Alvin Plantinga, *God Freedom and Evil*, p. 30

neighbour as yourself" as well various other philosophies and religions. Anders Nygren rightfully illustrates that considering love as a central tenet of Christianity is an obvious fact, but of course, the term has been variously understood.[168] Therefore, he posits *agape* as an appropriate understanding of Christian love, "What is the good? The good is ἀγάπη, and the ethical demand finds summary expression in the Commandment of Love, the commandment to love God and my neighbour."[169]

Nygren considers *agape* as the distinguishing feature of Christian ethics, "It sets a mark on everything in Christianity. Without it nothing that is Christian would be Christian. *Agape* is Christianity's own original basic conception."[170] As mentioned in Chapter One, *agape* can be understood as an altruistic, unconditional love, as opposed to *eros*, variously defined as physical love or ultimately self-gratifying love stemming from yearning desire.[171] As the religious scholar Colin Grant explains, in the Hellenistic world, *eros* was used to designate the Greeks' aspiration or desire, "It could cover sexual desire and thirst for the divine."[172] Of course, such definitions are not absolute; they are functional in aiding Nygren's task of distinguishing Christian love. According to Grant, a strong case can be made against Nygren in this regard.[173] Benedict XVI was already cited in the previous chapter, as suggesting that too sharp a distinction had been drawn between *agape* and *eros*. Similar perspectives are found with Paul Tillich, who felt that *agape* and *eros* were inseparable.[174] Grant suggests then that the altruism of *agape* (if the two terms are roughly equated) does not stand inherently opposed to self-interest, "*eros* may enrich, rather than threaten, *agape*.... "[175]

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[168] Anders Nygren, *Agape and Eros,* p. 41
[169] Ibid., p. 48
[170] Ibid., p. 48
[171] Philip S.Watson, 'Translator's Preface', Ibid., p. viii
[172] Colin Grant, *Altruism and Christian Ethics,* (Cambridge: Cambridge University Press, 2001) p. 168
[173] Ibid., p. 175
[174] Paul Tillich *Systematic Theology: II.3,* (London: SCM, 1978) p. 129 [Originally published 1957]
[175] Colin Grant, *Altruism and Christian Ethics,* p. 172

Notwithstanding, in the context of comparing Christian ethics with evolutionary ethics, Nygren's classification of Christian love as altruistic *agape* provides a good starting point for a normative position understood in this context as a fundamental tenet of Christian ethics. As Nygren states, "We have... every right to say that *ἀγάπη* is the centre of Christianity, the Christian fundamental motif *par excellence*, the answer to both the religious and ethical question."[176] Consequently, altruism can be identified as a key feature of Christian ethics. This sentiment is also found in the work of theologians such as Philip Clayton, who signifies altruism as the "crucial question for religious ethics."[177] Jeffery Schloss expresses a similarly robust position, as he states that sacrificial love or altruism is, in the Christian tradition, the ultimate *telos* of human existence, "the summation and fulfilment of all moral obligation."[178] Although *agape* will be considered as the *telos* of human morality in Chapter Five, Schloss' statement here could be perceived as overly grandiose as it pertains to the broader issue of human existence, as British theologian Neil Messer points out, "Strictly speaking, in the Christian tradition, the *telos* of human existence is more commonly reckoned to be eternal life with God...."[179] There is nothing expressly theological in viewing altruism as the *summum bonum* of Christian life; indeed Auguste Comte's atheistic positivism held altruism (a term Comte himself coined) as the definitive formula of human morality.[180] However, in the context of this chapter, altruism or *agape* can be signified as at least a key feature of Christian ethics – though this is not to say that the notion of *agape* implies Christianity.

[176] Anders Nygren, *Agape and Eros,* p. 48
[177] Philip Clayton, 'Biology and Purpose', Philip Clayton and Jeffery Schloss eds., *Evolution and Ethics: Human Morality in Biological and Religious Perspectives,* (Michigan: Erdmans, 2004) p. 333
[178] Jeffery Schloss, 'Evolutionary Ethics and Christian Morality', Philip Clayton and Jeffery Schloss eds., *Evolution and Ethics: Human Morality in Biological and Religious Perspectives,* p. 10
[179] Neil Messer, *Selfish Genes and Christian Ethics: Theological and Ethical Reflections on Evolutionary Biology,* (London: SCM, 2007) p. 127
[180] August Comte, *The Catechism of Positive Religion,* (Cambridge: Cambridge University Press, 2009) [Originally published 1891] p. 217

A related question arises with this understanding of altruism as a key feature of Christian ethics; if selfless love is the fulfilment of moral obligation, it could be asked, selfless love towards who? This was the question posed to Christ by an expert in law in Luke (10.29). Within various Christian denominations, for example Roman Catholicism, dissatisfaction has been expressed due to perceived conditional representations of 'love for thy neighbour'; conditions, for example, based on the gender or sexual orientation of 'thy neighbour'.[181] There have been various understandings or representations of who 'thy neighbour' is. Messer instructively points to aspects of Karl Barth's approach, which he feels are relevant on this question.[182] Barth suggests that the Christian challenge is to expand the circle of loyalties and concerns; that there is no distinction between near and distant neighbours – a sentiment developed in the Good Samaritan parable ('near' and 'distant' taken not just spatially but also with respect to identity).[183] The interpretation of Christian ethics followed here, then, is an unconstraint *agape* towards others, irrespective of who the 'others' are; a love even towards one's enemies (Matt. 5:44) – though for the sake of focus, whether or not animals be considered morally relevant others will be an ethical question left for future research. What is of concern here is developing an overarching framework and not a discussion on the intricacies of ethical dilemmas present within such a framework.

Whilst this facet of Christian thought can be held as the 'fundamental motif' of Christian morality as Nygren suggested, this is not to say that it is immune to critique. Nietzsche, for example, expresses clear distain for such ethics, "Christianity has been the most disastrous form of arrogance... with their "equality before God"...." T.H. Huxley, a contemporary and colleague of Darwin, also provides an interestingly critical view on the Christian 'golden rule' of neighbourly love. Huxley considers the logical conclusions of the

[181] See Gary Keogh, 'How can the Church Survive? Reflections of a Celtic Tiger Cub', *The Furrow*, 62.4 (2011); also, Gary Keogh, 'An Irish Church Reform Movement', *The Furrow*, 63.7/8 (2012)
[182] Neil Messer, *Selfish Genes and Christian Ethics*, p. 125
[183] Karl Barth, *Church Dogmatics: III.4*, trans. A.T. Mackay et al, G.W. Bromley and T.F. Torrance eds., (Edinburgh:T&T Clarke, 1990) pp. 285-323 [Originally published 1951]

empathetic notion of 'do as you would be done by' and suggests that they would be "incompatible with the existence of a civil state, under any circumstances of this world which have obtained, or, so far as one can see, are likely to come to pass."[184] Huxley points out that a strict understanding of Jesus' altruistic neighbourly love can ultimately defeat itself in the following example:

> For I imagine there can be no doubt that the great desire of every wrongdoer is to escape from the painful consequences of his actions. If I put myself in the place of the man who has robbed me, I find that I am possessed by an exceeding desire not to be fined or imprisoned; if in that of the man who has smitten me on one cheek, I contemplate with satisfaction the absence of any worse result than the turning of the other cheek for like treatment. Strictly observed, the "golden rule" involves the negation of law by the refusal to put it in motion against law-breakers; and, as regards the external relations of a polity, it is the refusal to continue the struggle for existence.[185]

Although Christian altruistic neighbourly love is understood in the context of this thesis as a fundamental characteristic of Christian ethics which will be compared with evolutionary ethics, it should be acknowledged that it may be vulnerable to certain criticisms.

A further point on the Christian idea of neighbourly love pertains again to the questioning of who is the 'neighbour'. Although the 'neighbour' in 'neighbourly love' is taken to be unconditional in the understanding of Christian ethics presented above, there is also a focus on certain 'neighbours' evident in particular representations of Christian ethics; the oppressed. For example, liberation theologians such as Gustavo Gutiérrez argued that theology should be focused on solidarity with the oppressed classes.[186] Despite certain criticisms of liberation theology,[187] the idea of a preferential option for the poor was adopted

[184] Thomas Henry Huxley, *Evolution and Ethics and Other Essays,* (New York: D. Appleton and Company, 1896) p. 57
[185] Ibid., p. 57
[186] Gustavo Gutiérrez, *A Theology of Liberation: History, Politics and Salvation*, trans. and eds. Sr Caridad Inda and John Eagleson, (London: SCM, 1983) p. 308 [Originally published 1971]
[187] For example, Joseph Ratzinger, 'Instruction on Certain Aspects of the 'Theology of Liberation'', (Rome 1984) http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_19840806_theology-liberation_en.html accessed 15th Nov. 2013

by influential figures such as John Paul II.[188] Therefore, in this chapter, it will be considered that a preferential option for the poor is a further characteristic of Christian ethics. Christian ethics focuses on, as the theologian Albert Nolan explains, "the poor, the blind, the lame, the crippled, the lepers, the hungry, the miserable (those who weep), sinners, prostitutes, tax collectors, demoniacs (those possessed by unclean spirits), the persecuted, the downtrodden, the captives... the least, the last... the lost sheep of Israel."[189] Christian ethics, as understood here in terms of *agape* and neighbourly love, is concerned specifically – though not only – with the poor and the oppressed (being mindful that these are equivocal terms and are not necessarily concerned with material poverty or political oppression). This theme is also discussed in wider-than-Christian contexts, such as in the work of John Rawls, who felt that a just society should strive to provide benefits in particular for the least advantaged members of society.[190]

2.1.3 Natural Law

A further characteristic of Christian ethics as it is understood in this chapter, is natural law theory. The British theologian Gerard J. Hughes offers a definition of natural law in its broadest sense, as the view that "morality derives from the nature of human beings."[191] However, as Hughes points out, such a broad understanding may dilute the true nuance and controversy within theories of natural law.[192] Aquinas is understood to have built his representation of natural law on various aspects of Aristotelian philosophy such as teleology

[188] John Paul II, *Centesimus Annus*, (Rome: 1991) http://www.vatican.va/holy_father/john_paul_ii/encyclicals/documents/hf_jp-ii_enc_01051991_centesimus-annus_en.html accessed 12th Oct. 2012
[189] Albert Nolan, *Jesus Before Christianity*, (London: Darton, Longman and Todd, 1992) p. 27 [Originally published 1977]
[190] John Rawls, *A Theory of Justice*, (Massachusetts: Harvard University Press, 1999) p. 13 [Originally published 1971]
[191] Gerard J. Hughes, 'Natural Law', Bernard Hoose ed., *Christian Ethics: An Introduction*, (London: Continuum, 1998) p. 47
[192] Ibid., p. 47

– though this is not to say that the two thinkers have identical positions on morality.[193] Aristotle did discuss the question of the good in markedly teleological terms; there are particular ends in different actions and arts, "Therefore, if there is an end for all that we do, this will be the good achievable by action...."[194] Aquinas understood moral ends in a comparably teleological way, though went a step further in identifying the ends as God's eternal law, "all things partake somewhat of the eternal law, insofar as, namely, from its being imprinted upon them, they derive their respective inclinations to their proper acts and ends."[195] Aquinas and Aristotle then, are comparable in terms of speaking of ends, though for Aquinas, the inclination is/should be to pursue the eternal law, whereas Aristotle believed in a diversity of ends.

Aquinas' thought on natural law and ends is complex, governed by various precepts which have been interpreted in a variety of ways, making it difficult to take as a singularly definable aspect of Christian ethics. His often quoted general principle of natural law, that "good is to be done and pursued, and evil avoided"[196] for example, demands further explanation; what is the good? How do we know the good? What about the perceived subjectivity of the good in various situations? These questions highlight the difficulty in considering natural law as a stand-alone doctrine. Notwithstanding, Aquinas does acknowledge the role of human reason in aiding our exploration and hopeful discovery of the eternal right and wrong; it can be a guide through this moral ambiguity. Therefore, a functional understanding of natural law is employed in this chapter; I take natural law as a distinguishing characteristic of Christian ethics for the purposes of comparing Christian ethics with evolutionary ethics, natural law being understood as the idea that morality stems from an interplay between human reason and an innate morality in nature. Human reason

[193] Ibid., p. 53
[194] Aristotle, *Nicomachean Ethics*, p. 941
[195] Thomas Aquinas, *Summa Theologica: I-II*, 91.2
[196] Ibid., 94.2

uncovers a moral code evident in nature.[197] Contrary to Bertrand Russell's idea of omnipotent matter, blind to good and evil, Aquinas postulated that nature has inherent in it, the ingredients of a moral code.[198] In Aquinas' view, this natural law reflects the values of God.

Indeed, like altruism and neighbourly love, the theological component of natural law, whilst present in Aquinas, is perhaps omissible in a broader discussion on morality. As Hughes explains, basing morality on human nature has been a feature of all classical Western philosophers, from Aristotle to Bentham.[199] However, the possibility of omitting the theological aspect of natural law only serves to strengthen my argument that Christian ethics and evolutionary ethics are not inherently inimical to one another, irrespective of whether Christian ethics requires a theological addendum conceiving a divine, eternal law. It is not contended that evolutionary ethics and Christian ethics will comfortably coalesce without remainder, nor would such a synthesis be expected. A theological component will be central to many Christian understandings of ethics, though in the field of evolutionary theory, such a component will not be of concern. As such, it will not be argued that evolutionary ethics specifically implies a theological element. However, this does not in any way provide an argument that the two understandings of ethics are opposed. Rather, it signifies a difference, but difference is not opposition.

To summarize the understanding of Christian ethics in this context then, I have highlighted three important characteristics; i) moral freedom, ii) *agape* and neighbourly love, and iii) natural law. This is not by any means an exhaustive understanding of what Christian ethics may be taken to mean. For example, it does not indicate a particular stance on any given moral issue or set of moral issues. Moreover, even within each of these motifs,

[197] Gerard J. Hughes, 'Natural Law', p. 48
[198] Bertrand Russell, 'A Free Man's Worship', Robert E. Egner and Lester E. Denonn eds., *The Basic Writings of Bertrand Russell*, (London: Routledge, 2009) p. 44 [Originally published 1961]
[199] Ibid., p. 47

variety exists. Therefore, it has been stated above what is understood by each of these characteristics. These particular characteristics have been used here because they are firstly, cardinal features of Christian ethics, and secondly, because it is with regard to these three issues that perceived conflicts between Christian ethics and evolutionary ethics lie. It is the task of this chapter to demonstrate that on these three central tenets of Christian ethics, there is little or no conflict between the two systems under investigation. In fact, several interesting parallels may even be drawn.

2.2 An Understanding of Evolutionary Ethics

Evolutionary ethics, like Christian ethics, is a term which is open to a variety of interpretations. Therefore, it should be made clear what it is taken to mean or imply in the current context. In this thesis, I take evolutionary ethics to mean an approach to ethics primarily concerned with how ethics evolved through natural selection. It is taken from various attempts to reconcile the principle of competition which drives natural selection (though this principle and its influence can itself be disputed) with the salient manifestations of altruism in the natural world.[200] In this sense, I equate evolutionary ethics to the sociobiological perspective on ethics. The central problem of sociobiology is stated by Edward O. Wilson, arguably the founder of the field, as; "How can altruism, which by definition reduces personal fitness, possibly evolve by natural selection?"[201] In other words, the understanding of evolutionary ethics is predominantly concerned with the scientific/philosophical question of ethics' origin. More specifically, I am concerned with human ethics, whereas the field of sociobiology is broader, though in dealing with human

[200] For examples of interpretations of evolution that dispute the emphasis on struggle or competition, see Peter Kropotkin, *Mutual Aid: A Factor in Evolution,* (New York: Dover, 2006) p. 1 [Originally published 1902]; also, Stephen Jay Gould, *Ever Since Darwin*, p. 88; and to an extent, Charles Darwin, *Autobiographies,* Michael Neve and Sharon Messenger eds., (London: Penguin, 2002) p. 51 [Originally published 1903]

[201] Edward O. Wilson, *Sociobiology: The New Synthesis,* (Massachusetts: Belknap Press, 1975) p. 3

ethics we are forced to consider our evolutionary lineage which is of course wider than humanity.

Others such as legal philosopher Jeffrie Murphy have suggested that evolutionary ethics or sociobiology could offer a parallel or alternative to ethical systems such as utilitarian ethics, deontological ethics, consequentialism, and so on.[202] Evolutionary theory can offer certain insights into developing ethical codes; Peter Singer, for example, contends that our understandings of evolutionary theory challenges us to review our moral approach to apes and other animals.[203] However, in this current context, I am concerned with the system for understanding the origin and nature of ethics from the perspective of evolutionary theory and its emphasis on struggle and competition (it has already been duly noted that this emphasis has been challenged, though I follow Gould in suggesting that such criticisms do not discount the intrinsic role of struggle in evolution).[204]

As discussed in Chapter One, 'traditional' frameworks for understanding ethics were marked by the presupposition of a world created good, evident for example in Plato and the Judeo-Christian narrative. Goodness was understood as established instantaneously (or thereabouts) and instilled in an archaic covenant or social contract. However, Darwin's depiction of humanity as an aspect of gradual evolution seems to conflict with the idea of an early or first society which established a moral code, as in the social contract myths of Rousseau and others. Peter Singer makes this point by acknowledging that archaeological evidence indicates that our pre-*Homo sapien* ancestors and their relatives, such as *Australopithecus africanus* and *Homo Habilis* were social beings. Therefore, the concept of a set of rules emerging from a distant Foundation Day where the first rational humans became social beings seems implausible.[205] Consequently, modern social contract theorists

[202] Jeffrie Murphy, *Evolution, Morality and the Meaning of Life*, (New Jersey: Rowman and Littlefield, 1982) p. 23
[203] See Peter Singer, *Animal Liberation*, (London: Random House, 1995) [Originally published 1975]
[204] Stephen Jay Gould, 'Kropotkin was no Crackpot', *Natural History*, 97.7 (1988) pp. 12-17
[205] Peter Singer, *The Expanding Circle*, pp. 3-4

such as Rawls have since stressed that the original state of nature is a hypothetical situation used only to conceive principles of justice; it is not a historical point.[206] From an evolutionary perspective, there was no original, primordial state where humanity began; there was a long period of incremental progression. The traditional, theo-centric moral systems based on archaic covenants cease to be sufficient when evolution is taken into account, leaving a void in our understanding of where ethics came from. Evolutionary ethics, in the context of this thesis, is taken as a framework which has been posed as a solution to the question of the origins of ethics. It should be noted however, that when speaking of evolutionary ethics as a framework, I am envisioning an overarching scheme, similar to that presented in Chapter One, though of course, 'evolutionary ethics' may encompass not just one approach but several – as we shall see below, there are significant differences in the weight attributed to particulr aspects of evolutionary ethics within the field (for example Dawkins and Wilson's dispute on the role of group selection).

2.2.1 The Question of Altruism in an Evolutionary Context

Examining altruism in an evolutionary context requires a shift in thinking when compared with the theological understanding of ethics that is more concerned with explaining evil than good. A central tenet of evolution stresses competition, as Darwin wrote "... natural selection acts solely by and for the good of each."[207] Permitting an anthropomorphic analogy, one could state along with Darwin that natural selection occurs as if it has the benefit of each as its primary focus – though this is not to portray natural selection as purely individualistic, indeed as we shall see, the 'each' is often extended to kin. Therefore, Darwin postulated that it will "never produce in a being anything injurious to itself...."[208] Darwin cites the influential nineteenth century theologian William Paley in this regard. Paley

[206] John Rawls, *A Theory of Justice*, p. 11
[207] Charles Darwin, *The Origin of Species*, p. 154
[208] Ibid., p. 154

recognised this particular principle, though postulated divine beneficence as the explanation, "We never discover a train of contrivance to bring about an evil purpose. No anatomist ever discovered a system of organisation, calculated to produce pain and disease...."[209]

The appearance of design in living organisms is substantiated by the fact that no bodies contain elements that are inherently hostile to themselves.[210] Darwin was later able to explain why this is the case, "After the lapse in time, under changing conditions of life, if any part comes to be injurious, it will be modified; or if it be not so, the being will become extinct, as myriads have become extinct."[211] T.H. Huxley expressed that because of these principles, he could not reconcile moral behaviour with the selfishness and moral indifference of nature.[212] In some respects, this emphasis on competition in Darwinian evolution echoes previous philosophies such as Thomas Hobbes' "war of every one against every one" where only the strong survive – though again, Darwin's discussions on kin may indicate his own view as less individualistic.[213] It could even be stated that the Darwinian survival of the fittest – a term coined by Herbert Spencer[214] – lends scientific credence to Augustine's understanding of original sin; we are naturally inclined to do evil as we are naturally self-interested in order to ensure our survival.

Altruism becomes conspicuous in an evolutionary context then, as it can be disadvantageous to one's own self. It seems to contradict the basic principles of natural selection. We would not expect evolution to produce altruism. For a similar reason,

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[209] William Paley, *Natural Theology*, (Oxford: Oxford University Press, 2006) p. 243 [Originally published 1802]
[210] Strictly speaking, this statement could be challenged given that auto-immune diseases exist. Yet the crux of the issue is that bodies containing elements that are *inherently* hostile do not, *in general*, flourish in the evolutionary process. If entities exist that are hostile to themselves, then they may propagate if such hostility is not such that it prevents itself from breeding. Dawkins notes a similar point with respect to genes which have a negative effect on organisms' survival competency; they may be perpetuated for several generations if they share a body with genes which play a more positive role. Richard Dawkins, *River Out of Eden: A Darwinian View of Life*, (London: Orion, 1996) p. 3. Such examples are indicative of the tendencies rather than stringency of evolutionary principles, an issue discussed in Elliott Sober, 'Two Outbreaks of Lawlessness in Recent Philosophy of Biology', Elliott Sober, ed., *Conceptual Issues in Evolutionary Biology*, 3rd ed. (Cambridge, MA: MIT Press, 2006)
[211] Charles Darwin, *The Origin of Species*, p. 154
[212] Thomas Henry Huxley, *Evolution and Ethics*, p. 59
[213] Thomas Hobbes, *Leviathan*, p. 91
[214] Herbert Spencer, *The Principles of Biology*, (London: Williams and Norgate, 1864) p. 444

Nietzsche was disapproving of morality, what he termed the "danger of dangers"; he felt it deeply hindered humanity's attempts to achieve its "highest potential power and splendour."[215] Darwin himself recognised this and noted that it hardly seemed probable that natural selection could produce virtuous tendencies such as altruistic behaviour.[216] Yet altruism clearly exists. As Adam Smith wrote, "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it."[217] Smith speaks of a "man within the breast" who acts as a conscience of sorts.[218] Kant similarly refers to the apparently innate notion of good will.[219] Darwin himself refers to this vague compulsion as "the moral sense", a faculty he views as the most important of all differences between *Homo sapiens* and the lower animals.[220] Therefore, there is a paradox in need of resolution. The asymmetry of the theological assumption of goodness and need to explain evil becomes inverted from the perspective of evolution; it is now goodness that requires explanation.

Although Darwin himself was perplexed by this issue, he pointed out that this question of moral instincts had not, at the time of writing, been approached purely from the perspective of natural history.[221] In a similar respect, Nietzsche predicted that this question should in the future be examined in terms of science; the philosopher's voyage of attempting to understand morality will be first mapped by the scientist.[222] On humanity's moral sense, Darwin reluctantly differed from "so profound a thinker" as John Stuart Mill, who felt that

[215] Friedrich Nietzsche, *On The Genealogy of Morality*, trans. Carol Diethe, Keith Ansell Pearson ed., (Cambridge: Cambridge University Press, 2007) p. 8 [Originally published 1887]
[216] Charles Darwin, *The Descent of Man,* (Washington: Pacific, 2011) p. 85 [Originally published 1871]
[217] Adam Smith, *The Theory of Moral Sentiments,* D.D. Raphael and A.L. Macfie eds., (Indiana: Liberty Fund, 1984) p. 9 [Originally published 1759]
[218] Ibid., pp. 130-131
[219] Immanuel Kant, *Groundwork for the Metaphysics of Morals,* p. 7
[220] Charles Darwin, *The Descent of Man,* p. 63
[221] Ibid., p. 63
[222] Friedrich Nietzsche, *On The Genealogy of Morality*, p. 34

moral tendencies are not innate but acquired.[223] Darwin believed that the moral sense was indeed inherited, though he also acknowledged that pertaining to certain virtuous tendencies, social instruction and habit may play a more dominant role in the development of individuals' moral character.[224] On this point, Darwin was not too far removed from Aristotle, who felt that moral virtues needed to be acquired through habit.[225] Evolutionary ethics, therefore, is understood here as the attempt to provide an account of the origin of ethics (equated roughly to altruism, as declared in section 1.1) in light of the seeming dichotomy of altruistic behaviour and the 'struggle for existence'.

2.2.2 Evolutionary Explanations for Altruism

Theorists within the field of evolutionary ethics or sociobiology as they are understood in this chapter, have proposed a framework as a solution to the paradox of altruism in an evolutionary context. This framework is the crux of what evolutionary ethics is understood here to entail. To illustrate, three distinct elements of the evolutionary framework for understanding ethics will now be highlighted (though these may not be exhaustive); i) kin/gene selection, ii) group selection, and iii) reciprocal altruism. It should also be noted that these particular facets of evolutionary explanations for morality may not be mutually exclusive – a point also acknowledged by Edward Wilson.[226]

Kin/Gene Selection

An important feature of evolutionary ethics as it is understood here is the kin or gene selection model for explaining morality. This model stems from the convergence of Darwinian natural selection and the principles of genetic inheritance, originally deduced by

[223] Charles Darwin, *The Descent of Man,* p. 63
[224] Ibid., p. 79
[225] Aristotle, *Nicomachean Ethics*, p. 952
[226] Edward O. Wilson, *On Human Nature*, (London: Penguin, 1995) p. 187 [Originally published 1978]

Gregor Mendel in the nineteenth century. This vision of evolution, known as the 'neo-Darwinian synthesis' or in the writings of certain authors, 'gene-selectionism', was popularised by Ronald Fisher in his work *The Genetical Theory of Natural Selection*.[227] It centres on the premise that nature 'selects' at the level of the gene as opposed to the individual – though this vision of evolution is not universally held.[228] The advent of genetics led to the discovery that the traits to which Darwin referred, are chemically encoded in strands of DNA – genes. Neo-Darwinian theory understands, therefore, that the survival of the fittest pertains to genes; genes which contribute to individuals' fitness will be passed on and become more numerous in the gene pool than genes which have a negative effect on individuals' fitness.

The British biologist J.B.S. Haldane outlined a gene-centred perspective which sought to explain altruistic behaviour. He proposed that from the hypothetical point of view of a gene, it would be beneficial to sacrifice oneself to save another if the benefactor of such sacrifice carried the same gene. In terms of natural selection's struggle for survival, the cost of the sacrifice would be negated by the benefit. Haldane proposed that within families, altruistic behaviour could emerge given that such behaviour ultimately aids the altruist's genes. He uses the example of a parent saving a drowning child to illustrate:

> Let us suppose that you carry a rare gene which affects your behaviour so that you jump into a river and save a child, but you have one chance in ten of being drowned, while I do not possess the gene, and stand on the bank and watch the child drown. If the child is your own child or your brother or sister, there is an even chance that the child will also have the gene, so five such genes will be saved in children for one lost in an adult. If you save a grandchild or nephew the advantage is only two and a half to one. If you only save a first cousin, the effect is very slight. If you try to save your first cousin

[227] R.A. Fisher, *The Genetical Theory of Natural Selection*, (Oxford: Oxford University Press, 1958)
[228] For example, significant evolutionary theorists such as Ernst Mayr and Stephen Jay Gould disagree. See Ernst Mayr, *Evolution and the Diversity of Life: Selected Essays*, (Massachusetts: Harvard University Press, 1976) p.13 and Stephen Jay Gould, *The Panda's Thumb,* (New York: Penguin, 1980) p. 76

> once removed the population is more likely to lose this valuable gene than to gain it.[229]

Haldane was able in this model, to logically postulate how altruistic behaviour may not necessarily conflict with the competitive principles of natural selection, albeit in familial situations. Furthermore, he notes that some circumstances may provide highly suitable conditions for such a model to work; beehives and ants' nests for example, as in these situations all members are "literally brothers and sisters."[230] This idea of kin selection seems to allow for a more lenient description of the struggle for existence; one which allows for concern for the welfare of others as opposed to the concern for only one's own welfare; natural selection, then, is not necessarily an uncompromising war of all against all.

The biologist W.D. Hamilton later developed upon this notion of kin selection by explaining how pro-social behaviour, morality included, would be consistent with the principles of competition in natural selection if it helped to maximise relatives' fitness – a concept he terms 'inclusive fitness'. This, he believed, "... implies limited restraint on selfish competitive behaviour and the possibility of limited self-sacrifices."[231] Hamilton suggested that the probability of whether or not an individual would be expected to act for the benefit of another is directly proportional to the probability of the 'other' sharing the individual's gene. He suggests that a gene which causes altruistic behaviour towards brothers and sisters will only become prominent in the gene pool when the circumstances are "generally such that the gain is more than twice the loss" as siblings have a fifty percent chance of carrying the same gene.[232] Adhering strictly to this model, which as Hamilton rightly notes is merely a model, "we expect to find that no-one is prepared to sacrifice his life for any single person

[229] J.B.S. Haldane, 'Population Genetics', *New Biology,* 18. (1955) p. 44
[230] J.B.S. Haldane, 'Population Genetics', p. 44
[231] W.D. Hamilton, 'The Genetical Evolution of Social Behaviour I', *Journal of Theoretical Biology*, 7. (1964) p. 1
[232] W.D. Hamilton, 'The Evolution of Altruistic Behaviour', *The American Naturalist*, 97.896 (1963) p. 355

but that everyone will sacrifice it when he can thereby save more than two brothers, or four half-brothers, or eight first cousins....”[233]

Of course, it is important to note that the principles of kin selection outlined by Haldane and Hamilton are general principles. Their examples of self-sacrificing kin are not illustrative of how individual humans consciously behave; for example, they do not take into account psychological motives/personal characteristics which may perhaps maintain a greater influence on our behaviour. Notwithstanding, the models of gene/kin selection presented demonstrate that the long term average outcome of behavioural strategies will be such that pro-social/altruistic predispositions will evolve, and moreover, will be to an extent dependent on the relatedness of the individuals involved in a given situation. As Hamilton notes, he seeks to hazard a “generalised unrigorous” principle, outlined as follows, “The social behaviour of a species evolves in such a way that in each distinct behaviour evoking situation the individual will seem to value his neighbour’s fitness against his own according to the coefficients of relationship appropriate to that situation.”[234]

Following from, and building upon Haldane, Hamilton and others, Richard Dawkins proposed an analogical framework for understanding how altruism can evolve from the gene-centred perspective. Dawkins finds it instructive to envisage individual bodies as fleeting, temporary amalgams of genes which replicate themselves and “leap from body to body down the generations” with near immortality.[235] In addition, Dawkins characterises these genes as fundamentally ‘selfish’. However, he is not using the characteristic of fundamental selfishness in the same way that Augustine or Hobbes might; that humanity is fundamentally inclined towards the evil or selfish action. Dawkins’ selfish gene theory exemplifies the problem to which Nietzsche once alluded, as he wrote that science is

[233] W.D. Hamilton, ‘The Genetical Evolution of Social Behaviour I’ p. 16
[234] W.D. Hamilton, ‘The Evolution of Social Behaviour II’, p. 19
[235] Richard Dawkins, *The Selfish Gene*, p. 34

"exposed to the seduction of language."[236] The literal understanding of selfishness, as it is used in common language, is not what Dawkins implied by the term. As a result, his use of analogical language was challenged by philosophers such as Mary Midgley, who rebuked the idea that genes could be selfish, given that they are not conscious entities.[237] Dawkins' intentions, however, were not to ascribe conscious characteristics to genes, but rather to illustrate from a behaviouristic context, how genes function.[238] Henceforth, I may employ such analogical language here in order to illustrate certain points pertaining to evolutionary ethics – though I am mindful that strictly speaking such language is not correct.

From this point of view, differential selection occurs at the level of the gene; the principle of survival of the fittest does not apply to individuals. Dawkins uses anthropomorphic language to illustrate the behaviour of genes; if genes had conscious intentions, they would seek to become more numerous in the gene pool – their primary wants would be to replicate and proliferate.[239] However, in achieving these purely selfish aims, genes can, as in the models of Haldane and Hamilton, aid replicas of themselves in other bodies. Therefore, by distinguishing between the gene and the individual, it becomes possible to maintain the fundamental principle of a struggle for existence whilst also accounting for altruistic acts at the level of the individual. The Hobbesian war of all against all can transpire at the level of the gene whilst altruistic acts can flourish at the level of the individual without any apparent contradictions. In other words, what appears to be altruism is brought about by genetic selfishness.[240]

[236] Friedrich Nietzsche, *On The Genealogy of Morality*, p. 26
[237] Mary Midgley, 'Gene-Juggling', *Philosophy*, 54.210 (1979) p. 439
[238] Richard Dawkins, 'In Defence of Selfish Genes', *Philosophy*, 56.218 (1981) p. 557
[239] Richard Dawkins, *The Selfish Gene*, p. 88
[240] Ibid., p. 88

Group Selection

Another aspect of evolutionary explanations of altruism pertains to the concept of 'group selection'. Edward Wilson defines group selection as when selection "affects two or more members of a lineage group as a unit. Just above the level of the individual we can delimit various [sic] of these lineage groups: a set of sibs, parents, and their offspring; close-knit tribe of families... and so on."[241] Although natural selection would be expected to 'oppose' altruistic behaviour if such behaviour is detrimental to the survival of the individual, group selection would 'allow' for such behaviour if that behaviour was of benefit to a group, i.e. a family, tribe, etc. Although Darwin conceded that the circumstances under which virtuous tendencies evolve would become too complex to follow through, he did allude to this idea of group selection.[242] He postulated that if such behaviour was profitable to the community, then no tension arises between the principles of competition and altruism, as the behaviour is still consistent with survival of the fittest – though the fittest becomes the group as opposed to the individual.[243] Dawkins outlines the concept as follows:

> [A] group, such as a species or a population within a species, whose individual members are prepared to sacrifice themselves for the welfare of the group, may be less likely to go extinct than a rival group whose individual members place their own selfish interests first. Therefore, the world becomes populated mainly by groups consisting of self-sacrificing individuals. This is the theory of 'group selection'....[244]

This model of selection would appear to explain how altruistic behaviour could exist without conflicting with the principle of competition.

Despite the appeal of such a model (Dawkins acknowledges that it was long assumed to be true) there are significant challenges to the theory. If a minority of individuals

[241] Edward O. Wilson, *Sociobiology*, p. 106
[242] Charles Darwin, *The Descent of Man*, p. 63
[243] Charles Darwin, *The Origin of Species*, p. 181
[244] Richard Dawkins, *The Selfish Gene*, p. 7

(cheats) in the group exploit the altruistic behaviour of others, thus benefiting from the group without incurring any 'cost' to themselves, then their behaviour would subsequently proliferate the group at a greater rate than the altruists. Dawkins articulates this problem with group selection:

> Even in the group of altruists, there will almost certainly be a dissenting minority who refuse to make any sacrifice. It [sic] there is just one selfish rebel, prepared to exploit the altruism of the rest, then he, by definition, is more likely than they to survive and have children. Each of these children will tend to inherit his selfish traits. After several generations of this natural selection, the 'altruistic group' will be over-run by selfish individuals, and will be indistinguishable from the selfish group.[245]

In highlighting this problem with group selection, Dawkins thus seeks to justify his own favouring of gene selection as a model for explaining altruistic behaviour.

Whilst this problem with group selection is substantial, it may not be a situation of exclusivity; as Wilson noted, despite certain problems with the model of group selection, it may still play some role in altruistic behaviour.[246] For example, philosophers of biology Elliot Sober and David Sloan Wilson offer a defence of group selection by acknowledging the complexities of social behaviour, particularly the ability/tendency to punish the "dissenting minority", to use Dawkins' term quoted above.[247] As such, they suggest that the "wholesale rejection of group selection" is misconceived.[248] In their view, group selection may play a strong role – though not necessarily an exclusive one – in explaining the "ultrasocial" characteristics of human behaviour, such as altruism.[249] Further dispute surrounding the significance of group selection arose with E.O. Wilson's co-authored paper 'The Evolution of Eusociality', when he and his co-authors challenged the models of kin or

[245] Ibid., pp.7-8
[246] Edward O. Wilson, *On Human Nature*, p. 187
[247] Elliot Sober and David Sloan Wilson, *Unto Others: The Evolution and Psychology of Unselfish Behaviour*, (Massachusetts: Harvard University Press, 1998) p. 151
[248] Ibid., p. 330
[249] Ibid., p. 158

gene selection for explaining altruism and re-asserted the strength of group selection[250] – E.O. Wilson then furthered this thesis in his book *The Social Conquest of Earth*.[251] In a review of Wilson's renewed interest in group selection, Dawkins was highly critical, describing it as "erroneous" and a "perverse misunderstanding" of evolutionary theory.[252] Irrespective of whether one aligns themselves fully with group selection or not, it can be stated here that group selection may play some role, and therefore, is an element of evolutionary ethics as it is understood here.

Reciprocal Altruism

Another aspect of the evolutionary answer to the altruism paradox, and thus of evolutionary ethics as understood in this chapter, is the notion of reciprocal altruism; one acts morally towards others with the hope/expectation that they would act similarly in return. This notion is not specific to modern genetic theories but has emerged throughout philosophical discourse for millennia, as Aristotle wrote, "Friendly relations with one's neighbours, and the marks by which friendships are defined, seem to have proceeded from a man's relations to himself."[253] This may be an earlier formation of the Christian notion of loving thy neighbour as oneself (Mark 12:21), though Aristotle's motives are seemingly less noble. Hume articulated a similar sentiment in his *Treatise*, "Men being naturally selfish, or endow'd only with a confin'd generosity, they are not easily induc'd to perform any action for the interest of strangers, except with a view to some reciprocal advantage...."[254]

[250] Martin A. Nowak, Corina E. Tarnita and Edward O. Wilson, 'The Evolution of Eusociality', *Nature*, 466.7310 (2010) pp. 1057-1062
[251] Edward O. Wilson, *The Social Conquest of Earth*, (London: W.W. Norton and Co., 2012)
[252] Richard Dawkins, 'The Descent of Edward Wilson', *Prospect*, (May 2012)
[253] Aristotle, *Nicomachean Ethics*, p. 1081
[254] David Hume, *Treatise of Human Nature*, p. 519

Similarly, Adam Smith wrote that "It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest."[255]

From a genetic perspective, however, the virtue of reciprocal altruism is in a sense irrelevant; reciprocal altruism is merely posited to add to the explanation of pro-social behaviour (and hence, morality). American biologist Robert L. Trivers proposed the idea of reciprocal altruism to illustrate how altruistic behaviour can be selectively beneficial between more distant relatives than with the kin selection model, which is primarily concerned with relatedness. Reciprocal altruism can be selected for even when the recipient is so distantly related to the altruist that kin selection could not apply.[256] Dawkins provides an illustration of how reciprocal altruism could be played out in a real-world scenario:

> Suppose a species of bird is parasitized by a particularly nasty kind of tick which carries a dangerous disease... Normally an individual bird can pull off its own ticks when preening itself. There is one place however – the top of the head – which it cannot reach with its own bill... An individual may not be able to reach his own head, but nothing is easier than for a friend to do it for him. Later, when the friend is parasitized himself, the good deed can be paid back. Mutual grooming is in fact very common in both birds and mammals.[257]

From the perspective of differential survival, such altruistic acts can, as Trivers states, benefit the organism performing them.[258] In other words, acts of reciprocal altruism, whilst seeming to be altruistic and thus opposed to the principle of survival of the fittest, will ultimately be of benefit to the altruists' genes. In addition to such acts of direct reciprocity, indirect reciprocity can also occur with a similar premise. Indirect reciprocity can evolve as a social norm (not dissimilar to group selection) where altruistic actions may be reciprocated not by the original beneficiary, but by other members of a society, as the biologist Richard

[255] Adam Smith, *The Wealth of Nations: I*, R.H. Campbell, A.S. Skinner and W.B. Todd eds., (Indiana: Liberty Press, 1981) pp. 26-27 [Originally published, 1776]
[256] Robert L. Trivers, 'The Evolution of Reciprocal Altruism', *The Quarterly Review of Biology*, 46.1 (1971) p. 35
[257] Richard Dawkins, *The Selfish Gene*, p. 183
[258] Robert L. Trivers, 'The Evolution of Reciprocal Altruism', p. 35

Alexander explains, "*Indirect reciprocity* I have defined as those cases in which the dividends from social investments are likely to come from individuals other than those helped (or hurt) by the original actor."[259] E.O. Wilson also endorses the idea, as he writes in a similar manner, "A population at large that enters into a series of such moral obligations, that is, reciprocally altruistic acts, will be a population with a generally increased genetic fitness."[260] Again we should be mindful that the model of reciprocal altruism seeks to explain general behavioural predispositions rather than provide a specific account of how individuals act in given circumstances; as such they do not take into account the innumerable variables that influence specific behaviours.

Notwithstanding the mutual benefits that direct/indirect reciprocal altruism brings to populations, the problem which was discussed with regard to group selection re-emerges; why not cheat? Why not attempt to benefit from the altruism of others without exerting the time and energy required to be altruistic in return. Wilson, however, explains that "in an advanced personalised society, where individuals are identified and the record of their acts is weighed by others it does not pay to cheat even in the purely Darwinist sense."[261] Among species with the capabilities for memory and recognition, such as *Homo sapiens*, reputation, punishments, praise, blame and other social instincts must be considered. Darwin himself recognised this point, by discussing how these societal instincts undoubtedly bore weight upon people's moral actions.[262]

Individuals would be unlikely to cheat in social scenarios as they would acquire a bad reputation. As a result, others would be suspicious of cheating individuals; a motif portrayed through Aesop's fable of the boy and the wolf. Humanity's complex social intuitions allow for extreme plasticity with regard to models of reciprocal altruism; for

[259] Richard Alexander, 'A Biological Interpretation of Moral Systems', *Zygon: Journal of Religion and Science*, 20.1 (1985) p. 9
[260] Edward O. Wilson, *Sociobiology: The New Synthesis*, p. 120
[261] Ibid., p. 120
[262] Charles Darwin, *The Descent of Man*, p. 85

example, Dawkins considers subtle cheating, and the evolution of mechanisms for detecting cheating. As he states, "There is no end to the fascinating speculation that the idea of reciprocal altruism engenders when we apply it to our own species."[263] For some, such as Mary Midgley, this issue is a serious weakness in attempts to fully explain altruism in an evolutionary framework; human behaviour is far too nuanced to be understood solely in terms of evolutionary costs/benefits.[264] However, the heuristic value of such models outweighs the negatives that result from the oversimplifications involved; evolutionary explanations of morality may not be able to account for the intricacies of human behaviour, but they may provide a solution to the paradox of why altruism should exist at all.

Having now outlined what is understood by 'Christian ethics', in section 2.1, and what is understood by 'evolutionary ethics', in section 2.2, perceived conflicts between the two systems can now be addressed. Evolutionary ethics could be seen to conflict with the three tenets of Christian ethics taken in section 2.1; i) moral freedom, ii) *agape* and neighbourly love, and iii) natural law. To illustrate that Christian ethics and evolutionary ethics as I understand them do not conflict, these three potential points of conflict will now be addressed and ultimately shown to be insubstantial. Moreover, it will be argued that there may in fact be distinct points of coalescence between the two systems.

2.3 Perceived Conflict with Moral Freedom

As discussed in section 2.1.1, an important prerequisite for a Christian or theological understanding of ethics pertains to moral freedom; humanity must have free will in order for their moral decisions to be meaningful. However, following from the theories of evolutionary ethics as discussed above, it could be argued that genetic predispositions could mitigate human freedom with regard to moral behaviour. If moral behaviour is merely a

[263] Richard Dawkins, *The Selfish Gene*, p. 188
[264] Mary Midgley, *The Solitary Self: Darwin and the Selfish Gene*, (Durham: Acumen, 2010) p. 139

result of genetic tendencies, then perhaps it is not 'free' in the sense required by Christian ethics; it is merely the manifestation of genetic 'wants' – permitting anthropomorphic language, given that genes cannot 'want'. By explaining altruism in terms of genetic selection, it has been argued that evolutionary explanations of ethics "take the altruism out of altruism."[265] Daniel Dennett labels this evolutionary understanding of altruism as a 'pseudo-altruism'; a form of altruism ultimately founded upon self-interest.[266] Dennett, moreover, suggests that no distinction can be made between this mode of altruism and 'genuine' altruism. Indeed, he feels that 'genuine' altruism is a vacuous and indefinable concept; those who seek a Platonic vision of altruism may be searching in vain.[267] As such, a prominent interpretation of evolutionary altruism proposes that altruism is merely a surface-level manifestation of genetic differential selection, and therefore, not the result of free choice (though I will disagree with this premise below).

One such proponent is Wilson, who distinguishes between hard-core and soft-core altruism. Hard-core altruism, Wilson states, "can be irrational and unilaterally directed at others; the bestower expresses no desire for equal return and performs no unconscious actions leading to the same end."[268] This might be an approximation of what one would consider as genuine altruism, which is not dependent upon consciously selfish desires for reciprocation. Such morality, Wilson suggests, is unique to close relatives (kin selection) and would steeply decline in frequency and intensity as the relationship becomes more distant.[269] Soft-core altruism, however, is fundamentally selfish. It is "calculating, often in a wholly conscious way" and is "orchestrated by the excruciatingly intricate sanctions and demands of society."[270] In Wilson's view then, morality is not a free decision to be moral for

[265] Robert Trivers, 'The Evolution of Reciprocal Altriusm', p. 35
[266] Daniel C. Dennett, *Freedom Evolves*, (London: Penguin, 2003) p. 196
[267] Ibid., p. 197
[268] Edward O. Wilson, *On Human Nature*, p. 155
[269] Ibid., p. 155
[270] Ibid., p. 156

morality's own sake, but a kind of self-serving, Machiavellian genetic cunningness. For Wilson, human altruism is soft-core, selfish, and only exists in the hard form in kin.[271] It exists to serve the purposes of selfish genes, and has no other demonstrable function.[272] The higher level freedom (however it is understood) necessary for Christian ethics may thus be interpreted as being overwritten at the genetic level. Others such as Ruse have agreed. Ruse maintains the belief that morality is an illusory concept which has evolved to further our reproductive ends, "nothing more, but also, nothing less."[273] He feels morality is put in place by our genes to make us efficient social animals.[274]

Midgley articulates a comparable reading of how evolutionary understandings of altruism have been presented, though unlike Ruse and Wilson, she disagrees and suggests that such understandings are overstating one aspect of multiple interacting causes.[275] She notes that sociobiology has been presented as hostile to the concept of free will and thus, may be understood as 'fatalistic'; the representation of human behaviour in terms of genetic 'purposes' denigrates humans to "being in fact only ineffectual pawns, puppets or vehicles of these 'hidden masters'."[276] I adopt Midgley's use of the term 'fatalism' to characterise a particular reading of evolutionary ethics; namely, that our subjective experience of 'free thought' is illusory, or more specifically applied in this case, that our 'free morality' is in fact a manifestation of genetic intentions.[277] A fatalistic interpretation views genes as parasites whose chemistry continually distorts our mental processes only to secure their own

[271] Ibid., p. 162
[272] Ibid., p. 167
[273] Michael Ruse, 'The Evolution of Ethics: Past and Present', Philip Clayton and Jeffery Schloss eds., *Evolution and Ethics: Human Morality in Biological and Religious Perspectives,* (Cambridge: Erdmans, 2004) p. 27
[274] Michael Ruse, 'Evolutionary Ethics: What We Can Learn From the Past', *Zygon: Journal of Religion and Science*, 34.3 (1999) p. 447
[275] Mary Midgley, *Evolution as a Religion: Strange Hopes and Stranger Fears*, (London: Methuen, 1985) p. 128
[276] Ibid., p. 128
[277] Midgley's use of the term 'fatalism' may be problematic given that fatalism can be variously construed. For example, another meaning of fatalism could be a view of resignation; that all events are inevitable, though this does not necessarily preclude free thought. Fatalism may also be understood in a wider sense, irrespective of modes of determinism, for example, in discussions on prediestination. Bernard Berofsky defines 'fatalism' as the view that forces determine outcomes independent of human wishes, though he also discusses further ambiguities with the term. Bernard Berofsky, 'Determinism', Robert Audi ed., *The Cambridge Dictionary of Philosophy*, 2nd ed., (Cambridge: Cambridge University Press, 1999)

survival.[278] In effect, this view poses a challenge to our conception of ourselves to the point where the statement 'our morality' may seem unintelligible; if 'we' are not necessarily entities in ourselves but amalgamations of genes, then it may be difficult to even speak of 'I' or 'we' rather than a particular group of genes. However, the conclusion is the same; we do not have control over our moral actions, either because the 'we' is eroded, or because our actions are fully governed by genetics. This understanding of sociobiology is clearly threatening to the theological perquisite of moral freedom; if our behaviour is fully governed by our genes, then the freedom essential for morality would be lost and thus, sociobiology would clearly conflict with Christian ethics as I understand it.

On this reading of evolutionary explanations of morality, Midgley is duly critical. She contests that schemes which interpret natural selection as intrinsically selfish bears resemblance to a Hobbsian political outlook. Midgley feels that sociobiology as presented by Dawkins and others, is a misguided quest to force evolutionary theory to fit the "old, exclusively self-benefiting" model of Hobbes' egoism.[279] As such, she challenges Dawkins' scientific objectivity – a criticism echoed in more recent commentaries.[280] Midgley's conclusion is that Dawkins' image of ruthlessly selfish genes manipulating bodies for their own ends leads us to a "paralysis of complete despair."[281] In this regard, she would disagree with the core message of this thesis – that such evolutionary understandings of ethics can provide an optimistic worldview. For her, they provides the opposite – fatalistic nihilism, something contrary to the idea of hope. However, the fact that Midgley finds the conclusions of evolutionary ethics distasteful does not amount to a substantial flaw in its depiction of our self-image; this is a matter of personal, philosophical, or perhaps socio-political inclination. Moreover, upon a closer reading of sociobiology, the interpretation which fears the fall of

[278] Mary Midgley, 'Selfish Genes and Social Darwinism', *Philosophy,* 58.225 (1983) p. 376
[279] Ibid., p. 374
[280] See for example, Fern Elsdon-Baker, *The Selfish Genius: How Richard Dawkins Rewrote Darwin's Legacy*,(London: Icon, 2009) p. 103
[281] Mary Midgley, 'Selfish Genes and Social Darwinism', p. 377

human moral freedom to genetic fatalism can be shown to be ultimately erroneous for at least three reasons; a confusion of utility and purpose, a failure to appreciate the role of human consciousness, and a narrow reading of the alleged dichotomy of reductionism and emergence.

Errors in the Perceived Conflict with Human Freedom: Utility and Purpose

Firstly is the confusion of utility and purpose. Nietzsche puts it well as he states that "the origin of the emergence of a thing and its ultimate usefulness, its practical application and incorporation into a system of ends, are *toto coelo* separate."[282] Anything which currently exists, Nietzsche correctly points out, can be constantly interpreted, altered, requisitioned, transformed and redirected for new purposes. Therefore, a thing's meaning or purpose for which it was created or emerged, becomes obscured or completely obliterated.[283] An organ for example, is not necessarily used for the purpose for which it evolved; rather, it has undergone a long series of adaptations and fulfilled various needs. Organs can have a long chain of functions which need not be connected, but "sometimes just follow and replace one another at random."[284]

In scientific parlance, this concept has been termed an 'exaptation' by Gould and Elisabeth S. Vrba. It refers to when a character (e.g. an organ) evolves for a particular purpose, or no purpose, but is later utilised for a different role.[285] Fingers, for example, may have evolved for catching prey or climbing to escape predators, but are now used for a plethora of other purposes; typing, playing the piano, etc. Morality then, may be considered as an exaptation; it could have evolved to serve a particular purpose (genetic selfishness) but may now be used for wholly other, unrelated purposes – for example, legitimate altruism if

[282] Friedrich Nietzsche, *On The Genealogy of Morality*, p. 51
[283] Ibid., p. 51
[284] Ibid., p. 51
[285] Stephen Jay Gould and Elisabeth S. Vrba, 'Exaptation – A Missing Term in the Science of Form', *Paleobiology*, 8.1 (1982) p. 6

such a thing is taken to exist. Consequently, the conclusion that morality is an illusory manifestation of genetic intentions is misconstrued. Interestingly, Ruse rightly expresses caution in this regard, "To suppose that the story of origins tells of truth or falsity is to confuse causes with reasons. In a Spencerian fashion, it is to jumble the way things came about with the way things really are."[286] He expresses regret that he has in the past made this conceptual error,[287] yet he still proposes that morality is a manifestation of genetic selfishness.

The fatalistic interpretation of sociobiology implies that genes are the sole arbiters of our behaviour. This makes a substantial conceptual leap deriving ultimate imperatives from origins. Our genetics undeniably maintain a powerful influence over our behaviour; our innate desires to survive, procreate and care for our offspring, for instance, can lead to acts most noble or imprudent. However, it would be fallacious to therefore conclude that our genes are the fundamental driving force of our actions. With respect to this issue, Dennett follows Nietzsche's warnings about inferring utility from purpose, as he states, "But we must not turn this important fact about our biological limitations into the massively misleading idea that the *summum bonum* at the source of every chain of practical reasoning is the imperative of our genes."[288] Therefore, just because certain aspects of our behaviour may have stemmed from genetic predispositions does not then imply that behaviour is fully determined by our genes, as Dawkins states, "genes have no monopoly on determinism" – there are psychological, emotional, and other multifaceted factors which influence our behaviour.[289]

[286] Michael Ruse, 'Evolutionary Ethics: A Phoenix has Arisen' p. 101
[287] Ibid., p. 111(n)
[288] Daniel Dennett, *Darwin's Dangerous Idea*, pp. 472-473
[289] Richard Dawkins, *A Devil's Chaplain: Selected Essays,* (London: Phoenix, 2003) p. 127

The Role of Human Consciousness

A second but related point of error in the fatalistic interpretation of sociobiology is the failure to fully appreciate the significance of human consciousness. When envisioning morality as an evolutionary exaptation, it could be asked that if morality originally evolved to serve genetic selfishness, but now serves another purpose, what is the other purpose? What is morality's current utility? The answer to this question may not be definitive, given that it could be maintained that morality is still in part a manifestation of genetic intentions. Notwithstanding, it can be argued that the powerful phenomenon of human consciousness may play an even greater role in our behaviour than our genes. This has been stressed by Dawkins in his qualifying remark, "We, alone on earth, can rebel against the tyranny of our selfish replicators."[290] Humanity's unique capacity for conscious foresight allows us to reflect and consider moral issues as opposed to being blindly led by our animalistic urges. Within philosophy though, consciousness itself is a contentious issue – at least at present, it is a phenomenon we have not yet been able to fully grasp. Yet we are quite adamant it exists; we feel it distinguishes us from automatons or mere amalgams of genetic parasites.

Dennett, who is himself a philosopher engaged in discourse surrounding the idea of consciousness, puts forth a concurrent view.[291] He feels that the cognitive architecture of the self allows us to become moral agents.[292] Our competence for understanding the reasons for morality, and subsequently reflecting upon those reasons, allow us to change them into different reasons.[293] This is not a new realisation; Hume recognised it, as he differentiated between natural and man-made virtues.[294] Huxley too understood that it was humanity's conscience (understood as an aspect of consciousness) which revolted against the moral

[290] Richard Dawkins, *The Selfish Gene*, p. 201
[291] For example, see Daniel C. Dennett, *Consciousness Explained*, (London: Allen Lane, 1991). For criticism and commentary, see Bo Dahlbom ed., *Dennett and his Critics: Demystifying Mind*, (Oxford: Blackwell, 1993)
[292] Daniel C. Dennett, *Freedom Evolves*, pp. 259-260
[293] Ibid., p. 260
[294] David Hume, *A Treatise of Human Nature*, p. 477

indifference of nature.[295] As such, nature is not the sole commander of our moral compass. The view then of sociobiology as understood here, suggests that morality indeed has natural biological origins, however, these origins no longer dictate our moral fibre; conscious thinking, reflection and culture now too plays a prominent, perhaps even greater role. Moreover, it is not an either/or situation, but a complex amalgam of motivations which are perhaps too intricate to fully understand.

Reductionism and Emergence

Once the biological principles of life had been unearthed through the study of evolution, conjecture began as to what implications this would have for our understanding of ourselves. However, the application of scientific theories to the analysis of human nature has been met with resistance, perhaps because of the feeling that it undermines human uniqueness. It may also be a result of the understanding that human nature or the human self encompasses religious experiences and morality; some of the most cherishable features of our existence. Defensiveness towards scientific explanations of these phenomena was thus anticipated by the seminal psychologist William James in 1902, as he felt it necessary to provide somewhat of a disclaimer when attempting to use the sciences to explain religious experiences, "When I handle them (religious experiences) biologically and psychologically as if they were curious facts of individual history, some of you may think it a degradation of so sublime a subject... Such a result is of course alien to my intention."[296] John Paul II also explicated limitations with regard to how the physical sciences can explain human nature by posing an ontological discontinuity between humanity, with its capacity for spirituality, and the rest of

[295] T.H. Huxley, *Evolution and Ethics*, p. 59
[296] William James, *On The Varieties of Religious Experience*, Martin E. Marty ed., (London: Penguin, 1982) p. 6 [parenthesis mine] [Originally published 1902]

living matter.[297] John Paul II felt that self-consciousness, self-awareness, and pertinently in the context of this thesis, moral conscience, must be analysed through philosophical reflection; they are beyond the reach of experimental scientific research.[298]

Humanity's moral sense is a specific element of human nature which John Paul II felt was beyond the ambit of scientific explanation. Though John Paul II appreciates the explanatory prowess of the natural sciences in relation to the physical continuity of evolution, he draws a partisan when it comes to the social/moral realms – a partisan which, as we have seen, is transcended by the sociobiologists. John Paul II's search for a partisan here points in the direction of an ongoing debate on reductionism and emergence. John Paul II feels that higher-level complexes, such as human nature, cannot be explained in terms of reduction to lower levels. Such a reductionist explanation would ultimately lead to the fatalistic reading of sociobiology; that our behaviour is fatally bound and explicable in terms of unscrupulous genetic parasites. Reductionist explanations of this sort are, according to John Paul II, "incompatible with the truth about man."[299]

It is argued here, however, that evolutionary explanations of ethics are not reductionist in this sense. This can be shown to be a narrow view of reductionism that suggests all things including human nature can be understood in terms of the principles of physics and chemistry, which would again threaten the idea of moral freedom. By accounting for higher-level subjects such as human nature and morality in terms of lower-level constituents, many may believe that the higher-level subjects cease to exist; they are merely corollaries of the interactions of their constituent elements. Nancey Murphy and George Ellis argue that if one accepts sociobiology, then one arrives at this conclusion – though they themselves reject the premise. They feel that the sociobiological project of

[297] John Paul II, 'The Origins and Early Evolution of Life', *Papal Addresses to the Pontifical Academy of Sciences 1917-2002 and to the Pontifical Academy of Social Sciences 1994-2002*, (Vatican City: The Pontifical Academy of Sciences, 2003) p. 373 [Originally published 1996]
[298] Ibid., p. 373
[299] Ibid., p. 373

explaining morality in terms of genetics deprives morality of its own essence; it reduces the moral to the nonmoral, hence clearly conflicting with moral freedom.[300] These narrow presentations of reductionism are however, as the late Irish philosopher Ernan McMullin incisively writes, based on common misapprehensions of reductionism.[301]

McMullin believes that the terms 'reducitonist' and 'reductionism' have acquired a negative stigma, derived from the "widely-shared belief that a reductionist is someone who denies the existence of a strongly evidenced reality."[302] This is exemplified with Murphy and Ellis' criticism of genetic accounts of morality. Yet this criticism is based on an oversimplified interpretation. Reductionist accounts of any entity need not deny its essence, let alone its existence. Were this to be the case, McMullin admits, reductionism would indeed be a threatening programme.[303] He uses the example of colour to illustrate that reductionism has no such repercussions, "The colour of an object is no less real because it can be explained in terms of the properties and configuration of the constituents of the body's surface layer of atoms."[304] With regard to morality, just because it can be explained in terms of genetics does not mean that it is any less 'real' or that we are any less free. Furthermore, as we seen, even strident advocates of sociobiology such as Dawkins and Dennett would not hold that morality can be explained completely in terms of genetics – genetics may merely explain its origins.

McMullin also challenges the common view of the nature of reductionism, namely, that its chief concern is reduction. He explains this counter-intuitive notion by stating that when the science of a complex whole is reduced by the science of its constituent parts, it may be better described in some cases as an *enlargement* of the lower-level science.[305] The

[300] Nancey Murphy and George Ellis, *On The Moral Nature of the Universe*, pp. 234-235
[301] Ernan McMullin, 'Biology and the Theology of the Human Person', *Zygon: Journal of Religion and Science*, 48.2 (2013) p. 310 [Originally published 2000]
[302] Ibid., p. 310
[303] Ibid., p. 310
[304] Ibid., p. 310
[305] Ibid., p. 310

connotations of the term 'reduction' may lead to an unfortunate misappropriation. It may be that the higher-level is not so much being reduced as the lower-level is being enlarged. This is exemplified in scientific history with the development of sub-atomic physics which seemed to require an entirely new mode of science to be developed. Atoms were 'reducible' in a sense to constituent particles, but the behaviour of atoms did not directly correspond to the interactions of their constituents, which seemed to have a different set of governing principles. In terms of the question of evolutionary ethics, it may be then considered that sociobiology does not so much reduce morality to a proxy of genetics, but rather, enlarges our picture of the differential survival of genes. As McMullin writes in more general terms, "... reduction is not necessarily the simple shifting of epistemological and ontological weight from whole to parts that it is often assumed to be."[306] As such, there is no need to posit an ontological distinction between human nature and the physical chain of living matter, as John Paul II has; evolutionary theories, by examining the realm of human moral consciousness and interpreting it from a biological perspective, do not necessarily conflict with the truth of the dignity of the human person.

A further issue relevant to the idea of moral freedom in terms of reductive explanations of morality, is that such reductive explanations do not completely discount 'emergence'. As contemporary theologians such as Willem B. Drees and Philip Clayton note, rhetoric usually portrays emergence and reductionism as sharply opposed.[307] However, this is not necessarily the case. McMullin provides a more subtle and nuanced understanding. He roughly defines emergence as when a higher-level property is irreducible by the sciences governing the constituents from which it derives.[308] Morality may be held as

[306] Ibid., p. 311
[307] Willem B. Drees, 'Emergence and Reduction: The Same Coin?', *Zygon: Journal of Religion and Science,* 48.2 (2013) p. 247, also, Philip Clayton, 'Conceptual Foundations of Emergence Theory', Philip Clayton and Paul Davies eds., *The Re-Emergence of Emergence: The Emergentist Hypothesis from Science to Religion,* (Oxford: Oxford University Press, 2006) p. 1
[308] Ernan McMullin, 'Biology and the Theology of the Human Person', p. 312

an example of an emergent property; it is not wholly reducible to the sciences governing the constituents from which it derives, given the importance of human consciousness as discussed above. Morality's origin may be explained in terms of gene/group selection, but it is no longer completely governed by the factors from which it emanated. One prominent supporter of the notion of emergence in evolution is Gould; he rejects the idea that bodies could be considered as passive slaves of controlling constituents – a claim he feels is made by gene-selectionists.[309] Therefore, even beyond the question of morality, the concept of emergence is held as a legitimate, if debated, aspect of evolutionary theory – for example, debate between Gould and Dennett.[310]

McMullin points to the contemporary philosophical problem of consciousness (or the mind-body problem) as an exemplar of the "battlefield" between reductionism and emergence.[311] Within this field, McMullin writes, one finds strong support for the claim that the realm of the mental is not reducible (in the narrow sense) by the sciences of the brain's constituents – though there would be disagreement depending on what interpretations of reduction and emergence were employed.[312] With respect to morality, as an element of the mental realm, sociobiology can present coherent proposals which reconcile moral instincts with the principles of natural selection; they do so by explaining morality (a higher-level entity) in terms of its constituents. However, it was shown that such a reductive explanation merely postulates the reasons for the origins of morality, that is, to say nothing about its current function. Therefore, given that it cannot be fully explained in terms of its constituents, morality could also be considered an emergent property as its origins do not explain its current utility. Consequently, attempts to definitively categorise morality as either

[309] Stephen Jay Gould, *The Structure of Evolutionary Theory*, (Massachusetts: Harvard University Press, 2002) p. 618
[310] See Daniel C. Dennett, *Darwin's Dangerous Idea,* p. 226, and Stephen Jay Gould, 'Darwinian Fundamentalism', *The New York Review of Books*, 44.10 (1997)
[311] Ernan McMullin, 'Biology and the Theology of the Human Person', p. 313
[312]Ibid., p. 313

reductive or emergent are unnecessary, perhaps even futile; depending on the interpretation of these ambiguous terms, one need not fully discount the other.

From a more nuanced appreciation of reduction and emergence, the ontological continuity between humans and all other life, made known to us from the science of genetics and our shared DNA composition, does not diminish the reality of the human person. More particularly, genetic understandings of morality do not relegate it to the realm of nothingness; explanations of a property do not deny their existence. Theologian Arthur Peacocke recognises this concept; he states that new realities can emerge from the continuous process of evolution.[313] Morality, which is evident in humans and other animals, can be held as an archetypal example of a new reality which emerges; a new reality which is epistemologically irreducible, though ultimately reducible. This mode of understanding evolution will be argued throughout this thesis to be more scientifically accurate and more theologically defensible than attempts to postulate humanity as somehow ontologically separate. Sociobiological explanations for morality are concerned with reconciling evident behaviours with underlying scientific principles; they do not deny its clearly existent reality. Fears that explaining morality will erode the cherished dignity and moral freedom of the human person are therefore ultimately misplaced.

Given these three fallacies of the fatalistic interpretation of evolutionary ethics, a strong case can be made for the view that evolutionary ethics does not conflict with the idea of human moral freedom, which is intrinsic to Christian ethics as it is understood in this thesis – moral freedom will also be a central theme in Chapter Five. Evolutionary ethics does not lead one to the conclusion that humans are mindless drones being driven by their constituent genes. Therefore, a perceived conflict between evolutionary ethics and Christian ethics on the issue of free will is misplaced; sociobiological accounts allow for the idea of

[313] Arthur Peacocke, 'Biological Evolution – A Positive Theological Appraisal', Mary Kathleen Cunningham ed., *God and Evolution: A Reader*, (London: Routledge, 2003) p. 253

moral freedom which is essential for Christian ethics. In addition, it will be maintained in later chapters that evolutionary understandings of ethics provide hope in what may be otherwise understood as a nihilistic world.

2.4 Perceived Conflict with *Agape* and Neighbourly Love

Another perceived area of conflict between evolutionary ethics and Christian ethics as I understand it, is the notion of *agape* and neighbourly love. As discussed in section 2.1.2, *agape* and neighbourly love are unconditional; irrespective of a neighbour's gender, political affiliation, sexual orientation, etc., a neighbour is to be loved. Distant neighbours and even enemies are understood to be morally relevant. Two potential points of conflict can thus be discerned between evolutionary ethics and Christian ethics with respect to neighbourly love; Firstly, from the perspective of Christian ethics outlined in section 2.1, there should be a specific focus on the least advantaged, in a somewhat Rawlsian fashion (an idea particularly salient in liberation theologies). Evolutionary views on morality may conflict with the emphasis on the least advantaged given that in such a view, morality is ultimately derived from the principle of competition. Secondly, given that evolutionary ethics is ultimately 'selfish' and positively discriminates by degree of relatedness, it may be considered to conflict with the indiscriminate, boundless altruism of *agape*.

The first point of conflict could be evident when it is considered that evolutionary ethics has been promoted in the past as a socio-political doctrine aimed at 'improving' the human race. The principle of competition in evolution, if taken also as a principle of ethics, would seem to be in opposition to the ideas of a preferential option for the disadvantaged, *agape* and neighbourly love. Rather than placing the least fortunate as the concern of wider society, theorists such as Francis Galton, a first cousin of Darwin, proposed to implement measures aimed at preventing certain groups (who could be equated to the 'least fortunate')

from breeding, "preventing the free propagation of the stock of those who are seriously afflicted by lunacy, feeble mindedness, habitual criminality and pauperism...."[314] Herbert Spencer also produced a view that would seem to correlate to the principles of competition and contrast with a preferential option for the poor; he felt that the subordination of egoism to altruism would ultimately be detrimental to society and that indiscriminate charity would be demoralising[315] – of course in reading Spencer and Galton, we should be aware that they were writing in a specific context, and therefore, as philosopher Paul Thomson has argued, are often misrepresented and disproportionately criticised.[316]

As a result of such theories, Ruse has argued that evolutionary ethics has "a (deservedly) bad reputation" because of the socio-political agendas of particular theorists.[317] Ruse interprets Spencer's outlook as a metaethic which seeks to morally promote the evolutionary process, which progresses "from simple to complex, from amoeba to man, from... savage to Englishman."[318] Ruse claims that the first theorists to begin to reflect on the ethical implications of evolutionary theory were led to the conclusion that we should be morally obliged to "let the weakest go to the wall."[319] Such a perspective on our moral 'ought' saliently conflicts with a fundamental tenet of Christian ethics as understood in this thesis, which seeks not 'send the weak to the wall', but to promote a preferential option for the poor.

With regard to the second point of conflict, whether evolutionary ethics can be seen as contrary to the Christian idea of altruistic *agape*, Ruse elaborates and distinguishes between a weak and strong form of the Christian idea of neighbourly love; the weak version, defined as "One's obligations are to be a good family man or woman, to be decent and kind

[314] Francis Galton, *Memories of My Life*, (London: Methuen and Co., 1908) p. 311
[315] Herbert Spencer, *The Principles of Ethics*, (New York: D. Appleton and Company, 1896) pp. 196-197
[316] Paul Thomson, 'Evolutionary Ethics: Its Origins and Contemporary Face', *Zygon: Journal of Religion and Science*, 34.3 (1999) pp. 446-447
[317] Michael Ruse, 'Evolutionary Ethics: A Phoenix has Arisen', *Zygon: Journal of Religion and Science*, 21.1 (1986) p. 95
[318] Ibid., p. 96
[319] Ibid., p. 96

to one's friends and acquaintances... and to be prepared to lend a hand to a stranger in need."[320] The strong form of neighbourly love, however, extends the sphere of morally relevant individuals to include enemies. On this stronger Christian interpretation, Ruse suggests that conflict does indeed emerge between the two systems.[321] As noted in section 2.2, sociobiological accounts of altruism are generally premised on the question, 'for the benefit of who?' – kin, the group, the individual, etc. Evolutionary accounts of ethics posit that altruistic behaviour is justifiably discriminatory towards closer kin or groups, given that they are more likely to share genes. Moreover, in the case of reciprocal altruism (direct and indirect), altruistic behaviour would be discriminatory towards those who may reciprocate, or towards a society that may reciprocate, as opposed to 'cheaters' in such models. This discriminatory factor of evolutionary ethics seems opposed to the stronger representation of Christian indiscriminate and boundless love.

Errors in the Perceived Conflict with Agape and Neighbourly Love

On the first point of conflict between evolutionary ethics and *agape*/neighbourly love, the derivation of an ethical program such as Galton or Spencer's is not an evolutionary ethic as understood in this chapter. Rather, it is adopting a moral 'ought' from a scientific 'is'; using detached hyper-rationality over conscience to formulate moral decisions. On this point, Ruse endorses G.E. Moore's criticism of Spencer and Galton for committing the naturalistic fallacy; as Moore wrote, "These doctrines are those which maintain that the course of 'evolution' while it shews us the direction in which we are developing, thereby and for that reason shews us the direction in which we ought to develop."[322] David Hume had similarly forewarned about developing morals directly from reason, as he states, "Reason itself is utterly impotent in this particular. The rules of morality, therefore, are not conclusions of our

[320] Michael Ruse, *The Darwinian Paradigm*, p. 262
[321] Ibid., p. 264
[322] G.E. Moore, *Principia Ethica*,(Cambridge: Cambridge University Press, 1922) p. 46

reason."[323] Augustine too offered a similar view, perhaps one which could be considered a predecessor to Hume, as he expressed scepticism with regard to forming moral judgements based on reason alone.[324]

Notwithstanding such caveats, evolution may in fact offer some guide for ethical conduct; Singer's views of the treatment of apes already mentioned section 2.2 is an example. Similarly, ethical systems that express particular concern for the biosphere have been advocated and grounded in evolutionary theory; Bron Taylor's *Dark Green Religion* and Anna Primavesi's *Sacred Gaia* are examples.[325] Ruse also concedes that drawing ethical imperatives is not necessarily erroneous.[326] However, drawing ethical stances from evolutionary theory is not of particular concern at this point. As outlined in section 2.2, I am taking evolutionary ethics as a model for understanding how moral behaviour may emerge from natural selection. This understanding of evolutionary ethics is essentially inconsequential with regard to specific moral issues – despite the fact that ethical imperatives have been taken from evolution. Evolutionary ethics provides a scheme for understanding how moral behaviour could evolve through the process of natural selection, but it is not an attempt to provide a scheme for how to be moral. A parallel could be drawn with the oft quoted expression, attributed to Galileo quoting sixteenth century Vatican librarian Ceasar Baronius, "*Spiritui Sancto mentem fuisse nos docere quomodo ad coelum eatur, non quomodo coelum gradiatur*" (the holy spirit teaches us how to go to heaven, not how heaven goes).[327] Evolutionary ethics conversely, teaches us how morality becomes, not how one becomes moral – nor can it teach us whether what we understand as virtuous can

[323] David Hume, *Treatise of Human Nature,* (Oxford: Clarendon Press, 1896) p. 457 [Originally published 1740]
[324] Bonnie Kent, 'Augustine's Ethics', Eleonare Stump and Norman Kretzmann eds., *The Cambridge Companion to Augustine,* p. 209
[325] Bron Taylor, *Dark Green Religion: Nature, Spirituality and the Planetary Future*, (California: University of California Press, 2010) pp. 20-22, also, Anna Primavesi, *Sacred Gaia*: *Holistic Theology and Earth System Science*, (London: Routledge, 2000) pp. 15-23
[326] Michael Ruse, *Evolutionary Naturalism*, p. 278
[327] Also quoted by John Paul II, 'The Emergence of Complexity in Mathematics, Physics, Chemistry and Biology', *Papal Addresses to the Pontifical Academy of Sciences,* p. 342

actually be considered to have an *a priori* virtue, if such a thing even exists. Therefore, there is no conflict between my understandings of Christian ethics with regard to *agape* and neighbourly love and the evolutionary principle of competition.

The second point of conflict which may be perceived between evolutionary ethics and Christian ethics is whether evolutionary ethics has presented morality as ultimately selfish (for the benefit of one's genes, or group for instance), and thus contrary to the indiscriminate and boundless *agape* and neighbourly love of Christian ethics. Colin Grant makes this point as he notes that the morality of sociobiology does not fit the altruism of the Gospels; he feels that sociobiology "naturalises" altruism and does not fit the radicalism of Jesus' teachings.[328] Yet this issue may be a semantic misunderstanding; in genetics, terms such as 'altruism' and 'selfishness' do not carry the same meaning as they do in traditional moral discourse. Peter Singer makes this point, as he explains that when speaking of biology, altruism and selfishness are consequentialist; they do not pertain to conscious motives. Singer explains that sociobiology's peculiar use of the term 'selfish' relates solely to whether or not actions maximise the number of descendants one has. These terms have nothing to do with motives, "they refer only to actual consequences of the individual's behaviour, whether or not the individual is motivated by or even aware of these consequences."[329]

This is a similar issue to the previously noted contention between Dawkins and Midgley regarding his use of analogical language. Sociobiology is not speaking of conscious selfishness but merely using such language as a heuristic method. J.L. Mackie also highlights this distinction as he follows the evolutionary understanding of morality, particularly as expressed in the work of Dawkins.[330] Mackie emphasises that evolutionary

[328] Colin Grant, *Altruism and Christian Ethics*, pp. vx-vxi
[329] Peter Singer, *The Expanding Circle*, p. 129
[330] J.L. Mackie, 'The Law of the Jungle: Moral Alternatives and the Principles of Evolution', *Philosophy*, 53.206 (1978) p. 455

explanations of morality are theoretical points of biology; they are not meant to be construed as ethical subjects in the traditional sense, nor are they offered as psychological frameworks.[331] Mackie refutes Midgley's argument that the 'selfish gene' concept leads to excessive egoism. Rather, he assures us, evolutionary ethics demonstrates how morality emerges from a mixture of biologically determined general tendencies and cultural traits, which lead to mixed behavioural 'strategies' between individuals.[332]

Morover, again, the role of human consciousness is not taken into account in such critiques/perceived conflicts. Sociobiology, as it is presented by Dawkins, Dennett and others, clearly indicates that morality is not ultimately selfish; this would be to make the error of confusing origins with functions, as discussed in section 2.3.1. In sum, sociobiology, given that it acknowledges the powerful role of human consciousness and the differences between origins and functions, does not discount the genuine *agape* of the Christian message

2.5 Perceived Conflict with Natural Law

As outlined in section 2.1.3, natural law can be seen as an interplay between human reason and nature; that human reason helps to uncover an inherent moral law which is reflective of divine values. There could be a perceived conflict between this understanding of natural law and the field of evolutionary ethics given that natural law implies an objective moral code. On this point, Edward Wilson makes a sharp distinction between a natural law concept of ethics (which he terms transcendentalist) and his own sociobiological account (which he terms empiricist) – though I acknowledge here that Wilson's two options may not be the only ones available.[333] Interestingly, Wilson points out that neither of these approaches are necessarily theistic or atheistic; a transcendentalist approach to ethics can be atheistic, whilst

[331] J.L. Mackie, 'Genes and Egoism', *Philosophy*, 56.218 (1981) p. 555
[332] Ibid., p. 555
[333] Edward O. Wilson, *Consilience: The Unity of Knowledge*, (New York: Random House, 1998) p. 261

an empiricist approach can be theistic (Wilson himself for example, identifies strongly as an empiricist with regard to ethics, but also as leaning towards deism).[334] In any case, he outlines what he perceives as the two 'options' for ethical foundations, "*I believe in the independence of moral values, whether from God or not*, versus *I believe that moral values come from humans alone; God is a separate issue*."[335] A vision of natural law, as Wilson understands it, whether theistic or not, implies a self-evident set of moral principles, whereas an empiricist views ethics as conduct "favoured consistently enough throughout a society to be expressed as a code of principles."[336]

An objective frame of reference against which behaviour can be deemed moral or immoral can possibly be signified as conspicuously absent from sociobiology, and thus a potential point of conflict between natural law and evolutionary ethics. It was noted in the previous chapter that the history of ethics can be contextualised substantially by a theo-centric notion of an objective set of divinely instituted moral precepts. Evolutionary ethics however, is seemingly self-sufficient; it can explain morality without reference to a primordial covenant or divine ideal of the good. This apparent point of conflict has also been highlighted by Keith Ward, who feels that Christian ethics has a solid foundation or a metaethic akin to a Kantian sense of duties; there is a categorical, authoritative command to obey moral duties, a command which comes from God.[337] Without this metaethic, sociobiology therefore cannot be an adequate framework for understanding morality, and as such, a perceived tension arises between sociobiology and natural law.

[334] Ibid., p. 263
[335] Ibid., p. 261 [italics in original]
[336] Ibid., p. 262
[337] Keith Ward, *Why There Almost Certainly Is a God: Doubting Dawkins*, (Oxford: Lion, 2008) p. 135

Errors in the Perceived Conflict with Natural Law

The oppositional model of natural law and sociobiology can be discredited when the strong parallels between the two systems are acknowledged. The political philosopher Larry Arnhart, for example, expresses the view that although we can rationally deliberate upon our plans for societal life, and prudently judge what to do in particular circumstances, our moral experience is not arbitrary; it is an expression of our nature.[338] This conclusion can be taken from either Aquinas' natural law or sociobiology, thus demonstrating similarities between the two systems. Arnhart goes as far as to say that sociobiology belongs to the "tradition of moral naturalism that includes the idea of natural law as elaborated by Thomas Aquinas."[339] Natural law and evolutionary accounts of ethics both specify a general structure of human morality, or at least postulate strikingly similar natural origins under the rubric of preserving human life and valuing offspring, though neither can adjudicate over disagreements in particular cases.[340] Even stalwart sociobiologists would agree that their accounts of the origins of morality cannot indicate what is and what is not moral – though as noted above, evolutionary theories can and have been utilised to justify particular moral outlooks with regard to the environment and other issues. Aquinas and the sociobiologists both argue that morality has its origins in nature. Moreover, further similarities exist pertaining to the role of reason; Dawkins and Dennett, for example, are reminiscent of Aquinas in emphasising that conscious reason plays a key role in navigating moral decisions, despite acknowledging that we may have natural prejudices towards certain actions.

However, as theologian Stephen Pope rightly points out, there can be no simple synthesis between Thomas' ethics and evolutionary theory.[341] For this reason, Neil Messer

[338] Larry Arnhart, 'Darwinian Conservatism as the New Natural Law', *The Good Society*, 12.3 (2003) p. 19
[339] Larry Arnhart, 'The Darwinian Moral Sense and Biblical Religion', Philip Clayton and Jeffery Schloss eds., *Evolution and Ethics: Human Morality in Biological and Religious Perspectives*, p. 204
[340] Ibid., p. 18
[341] Stephen J. Pope, *The Evolution of Altruism and The Ordering of Love*, (Washington D.C.: Georgetown University Press, 1994) p. 77

critiques Arnhart's marrying of sociobiology and natural law as too simplistic.[342] In spite of this caveat, Pope does acknowledge that functional equivalencies can be identified between the two systems.[343] For example, natural law as it is understood here, is an interplay between human reason and an innate morality in nature. Similarly, sociobiology suggests that a morality arose in nature, and subsequently, human reason took a prominent role in our categorising behaviour as moral or immoral. As Pope writes, Thomas' ideal of love is an "integral personal response *ordering* and *incorporating* the appetites as well as the intellect."[344] Consequently, it is clear that given these functional equivalencies, there need not be direct conflict between the natural law of Christian ethics and evolutionary ethics; much to the contrary, there are in fact deep similarities.

Despite these similarities and parallels, it could still be argued that in reconciling sociobiology with natural law it is necessary to excise the theological element from natural law. Philosopher Craig Boyd has stressed this point; that theologians who seek to reconcile the two systems are distorting Aquinas' ethics to make natural law palatable to sociobiologists.[345] Boyd is correct in stating that the sociobiologist or ethical empiricist does not need to appeal to God in their explanations of morality. Wilson, for example, favours "a purely material origin of ethics."[346] However, this highlights another relevant theological/philosophical concept, namely, the idea of explanatory pluralism; varying explanations for a given phenomena can coexist without being in direct conflict with one another. Unless two explanations are demonstrably shown to conflict, then there is no *a priori* reason for discounting one.[347] It can be argued then that phenomena may have a

[342] Neil Messer, *Selfish Genes and Christian Ethics*, p. 118
[343] Stephen J. Pope, *The Evolution of Altruism and The Ordering of Love*, p. 77
[344] Ibid., p. 57 [italics in original]
[345] Craig A. Boyd, 'Was Thomas Aquinas a Sociobiologist? Thomistic Natural Law, Rational Goods, and Sociobiology', *Zygon: Journal of Religion and Science*, 39.3 (2004) p. 668
[346] Edward O. Wilson, *Consilience*, p. 263
[347] This argument may be slightly vulnerable to criticism regarding the burden of proof, as put forth by Bertrand Russell and others, in that one would not be burdened with the task of disproving a given explanation. Bertrand Russell, 'What is an Agnostic?', *The Basic Writings of Bertrand Russell*, p. 557 [Originally published 1953]

plurality of explanations of equal authority; a teapot boils because a person wants a cup of tea, or because a person turned on the stove, or because the molecules of water are escaping as the water heats. Returning to E.O. Wilsons' demarcation between two 'options' for a grounding of morality (transcendentalist or empiricist), acknowledging the possibility of explanatory pluralism may suggest that it is not an either/or situation. A number of contemporary theologians engaged in the science – religion dialogue adopt this method of understanding, for example, John Haught and John Polkinghorne (who both use the teapot analogy).[348] In this view, sociobiology, despite not directly appealing to God, does not discount the theological element of natural law; elements of natural law that are not distinctly theological seem to coalesce reasonably well with the principles of sociobiology.

On the issue of a metaethic then, is there a possibility of a synthesis between evolutionary ethics and natural law on the issue of an objective morality? Even if there are similarities between the two systems, understanding morality as having evolved may depict it as inherently subjective, given that by definition it has originated as a result of biological processes; had these biological processes been different, surely our moral outlook (and indeed, much else) would be different. Ruse illustrates this point by postulating the existence of extraterrestrials – for the sake of argument I assume he is conceiving of extraterrestrials of a similar intelligence and who hold whatever other criteria we may use to classify one as a moral agent. He suggests that if such extraterrestrials had different biological characteristics, then perhaps they would have different moral outlooks on something such as rape.[349] He suggests that, "... we cannot automatically assume that our extraterrestrials would think rape immoral."[350] Although Ruse himself makes a number of other points in relation to this discussion, I raise this issue to illustrate that if our morality is in some senses

[348] John Haught, *Christianity and Science: Toward a Theology of Nature*, (New York: Orbis, 2007) p. 142; also, John Polkinghorne, *Quarks, Chaos and Christianity: Questions to Science and Religion*, (London: Triangle, 1994) p. 15
[349] Michael Ruse, *The Darwinian Paradigm*, pp. 234-237
[350] Ibid., p. 235

dependent on our biological heritage, then our morality is inherently subjective and could have been otherwise, as it is for Ruse's hypothetical extraterrestrials. Hence, subsequent to reflecting upon our evolutionary history, we realise that perhaps a Platonic good is a redundant notion. This point, as noted above, was where Ward and others took issue with sociobiology, and thus felt the need to maintain a more traditional approach; a divinely instituted morality.

Despite the fact that morality has evolved and is dependant on our evolutionary heritage, its reality is not diminished – recall the sentiment of the emergent approach discussed above. The same could be said of moral objectivity; there may not be, as Ruse's extraterrestrial example illustrates, an *a priori* ethical objectivity inherent in the evolutionary process. Yet this does not necessarily discount an objective standard for morality. As John Rawls suggested, humanity can develop a system of a basic structure of justice; a social notion of objectivity.[351] Willem B. Drees draws upon Rawls in this regard to suggest that a social establishment of a standard of justice can be "a valuable complement to and corrective of our ethical intuitions as rooted in our biology. Ethical objectivity need not be linked to a realm of ethereal entities such as abstract values."[352] As a result, in addition to the functional equivalencies, it can be argued that evolutionary understandings of ethics could mirror natural law in that they both portray human reason reflecting upon human nature and uncovering/constructing a moral standard – which reflects divine values in a theological interpretation.

There are, of course, at least two distinctions to be made when comparing the moral objectivity of natural law, and the moral objectivity as it is described in the Rawlsian standard of justice. Firstly, the Rawlsian standard of justice is not *a priori*; it can hardly be equated to the Eternal law of Aquinas' thought, given that it emerges from the evolutionary

[351] John Rawls, *A Theory of Justice*, p. 3
[352] Willem B. Drees, *Religion and Science in Context: A Guide to the Debates*, (London: Routledge, 2010) p. 128

process and subsequent reflection upon biological imperatives. That being acknowledged, a Rawlsian *posteriori* appreciation of morality may actually be incorporated into a revised theological framework, such as will be advocated in later chapters.

The second distinction is that, as Rawls himself acknowledges, "There is no reason to suppose ahead of time that the principles satisfactory for the basic structure hold for all cases."[353] Thus, one could question how objective Rawls' basic structure actually is. This caveat is also dutifully acknowledged by Aquinas, when considering moral precepts of the law of nature, "... one may proceed in various ways to judge of various matters."[354] Even in Aquinas' vision of natural law then, subjectivity is acknowledged. Morality is not seen in either natural law or sociobiology as understood here to be fully objective or fully subjective; in adopting either view (or indeed, both), one can maintain that some objectivity is possible. Moreover, this objectivity is discerned through the interplay of human reason and nature. So whilst it is not contested that evolutionary ethics and natural law are identical, the similarities do suggest that they are at least not in conflict. Consequently, a perceived conflict between Christian ethics and evolutionary ethics on the issue of natural law can be argued to be resting upon weak foundations.

2.6 Conclusion

The underlying motivations and levels of Christian ethics and evolutionary ethics as I understand them are indeed different; Christian ethics is primarily concerned with developing a schema for employment in the real world as a guide for how people ought to live (the principles of *agape*, neighbourly love and a preferential option for the poor, for example). That being said, it is also concerned with a philosophical metaethic from which subsequent moral discourse can emerge (the concept that an ethical ideology has been

[353] John Rawls, *A Theory of Justice*, p. 7
[354] Thomas Aquinas, *Summa Theologica: I-II*, 100.1

divinely revealed through Christ, or through natural law, for instance). Evolutionary ethics is not as concerned with making moral statements; its focus is an understanding of how ethics came to be, though again this is not to suggest that evolutionary theory cannot be employed to lend credence to or indeed rebuke moral statements (for example, pertaining to human attitudes to the biosphere). In this chapter, the two systems were compared in order to show that one does not supersede the other; evolutionary understandings of ethics can co-exist with Christian ethics. Arguments have been presented (such as those by Midgley and John Paul II, among others) which suggest that human morality is (at least in part) beyond the remit of explanation by the natural sciences. However, it was argued in this chapter that evolutionary theory does provide insight into the origin and nature of human morality, and moreover, that these insights do not conflict with Christian understandings of ethics.

To illustrate this, an understanding of what is meant by 'Christian ethics' was outlined in section 2.1, explicated in terms of three key motifs; moral freedom, *agape* and neighbourly love, and natural law. Furthermore, an understanding of evolutionary ethics was then outlined in section 2.2 – this was understood in terms of the theories/conclusions of sociobiology with regard to the questions of the origin and nature of human morality (of course noting that sociobiology in general is concerned with wider-than-human behaviour, and wider-than-moral behaviour). Perceived conflicts between these insights of sociobiology and the three tenets of Christian ethics as I understand them were then considered in sections 2.3-2.5. Whilst potential conflicts may be discerned between evolutionary ethics and each of these three aspects of Christian ethics, I argued that upon a proper reading of sociobiology that had a nuanced appreciation of reductionism/emergence and fully acknowledged the important role of human consciousness, these perceived conflicts were ultimately specious; they were based upon misreadings or narrow interpretations of the key themes of evolutionary ethics. Consequently, a strong case is made for the compatibility of Christian

ethics and evolutionary ethics; even if they cannot be neatly consolidated, they are not in conflict. This allows me to advance the argument of this thesis further which will demonstrate how evolutionary ethics can influence a Christian theological worldview and provide a glimmer of hope. Before this argument reaches its culmination, it will be evidenced in the next chapter how theology can be re-shaped in light of evolutionary theory, thus providing a theological worldview which is more amenable to evolutionary ethics than traditional worldviews such as those explored in the previous chapter.