Modern Theology Month 2025
ISSN 0266-7177 (Print)
ISSN 1468-0025 (Online)
DOI:10.1111/moth.70055

THE FATHERS, COMPUTERS AND US

MARK J. EDWARDS

Abstract

This essay, designed as a complement to opinions expressed by Rowan Williams and some speakers at the conference in his honour, explores features of early Christianity which suggest a positive evaluation of artificial intelligence. Noting that the fear of reducing humans to machines has been joined in the modern age by the fear that machines could become human, it takes as an example of both trends Frank Tipler's thesis that humans are destined to survive in the form of digital information. It goes on to suggest that concomitants of our humanity such as embodiment, memory and emotions may not be as highly valued by early Christian writers as by modern opponents of artificial intelligence. It concludes by considering whether the power to love is a sufficient diagnostic of the human in contrast to the artificial.

Introduction

Edward Schillebeeckx once characterized the task of theology as the defence of the *humanum*,[1] and among the current threats to the survival of humanity, some would say that artificial intelligence is the most formidable if only because it advances both more quickly and more autonomously than climate change or the growth of our armouries of mass destruction. It is not, of course, essentially malign as the other two are, and might even counteract them if the machines to which we entrust our military and economic calculations become intelligent enough to devise their own strategies, without the fear, suspicion and hypocrisy which bedevil all human dealings. For this very reason, however, we are bound to fear that the more capably they execute our plans the more easily they will displace us, and that within a few years we shall be reduced to ghostlike witnesses of their transactions, if indeed we are allowed to exist at all. It is usual for those who deplore this prospect to asseverate that machines cannot be persons,[2] and that if persons were to become extinct the world would be impoverished—or, as Christians might contend, there would be nothing to

Mark J. Edwards
Christ Church, St. Aldate's, Oxford, OX1 1DP, UK
Email: mark.edwards@theology.ox.ac.uk

[1] Edward Schillebeeckx, *The Understanding of Faith*, translated by N. D. Smith (Sheed and Ward, 1974), 91-94.

[2] See e.g. David Bentley Hart, *The Experience of God: Being, Consciousness, Bliss* (Yale University Press, 2013), 216-24; Rowan Williams, *Being Human: Bodies, Minds, Persons* (SPCK, 2018), 1-27.

bear the image of God or reciprocate his love. Be that as it may, it has now become as futile to protest against the advance of artificial intelligence as to rail against Newton, Darwin, Heisenberg or the second law of thermodynamics. In the present essay, therefore, I wish to explore the argument that advances in the science of information need not threaten either the concept of the person as an embodied soul or the hope of immortality which accompanies this concept in the New Testament and in Christian theology. I shall take as my standard of Christian thought the writers who are commonly called Church Fathers, and as my sample of the marriage of cybernetics with theology a book by the eminent physicist Frank Tipler. It is not the book to which he owed his eminence, and he is frequently accused of pseudo-science; my question in this essay, however, is not whether Tipler is right but whether, when one applies the patristic standard, he proves to be any less able a theologian than those who would now oppose him in the name of orthodoxy.

Mechanized Souls and Thinking Matter

When thinkers of the early modern era denied the existence of an incorporeal soul, they were inevitably accused of atheism and of denying the freedom of the human will. The second charge, indeed, was seldom resisted, since the first premises of both metaphysics and natural philosophy in this epoch was that matter contains no principle of motion. It followed that a body was incapable of action unless it received an impetus either from some other body, the source of whose motion would require further explanation, or from an immaterial cause, which if it were not a self-moving soul could only be God. The inertia of matter was indeed a proof of God's existence, since the animation of the physical cosmos was an observed fact which could not be accounted for within that cosmos; on the other hand, it was an axiom of theology, as well as a datum of reason, that humans could not be judged for their actions, either in the present world or in the next, if these actions were not free, at least in the sense that they represented the will of the agent. Common sense might wrestle in debate with Calvin, Augustine or the Stoics as to whether the will was free to do other than it willed, but it was clear to all that when a man throws a stone he is acting voluntarily and the stone is not. If the act of throwing the stone, or indeed the decision to throw it, was nothing more than a mechanical impulse engendered by another mechanical impulse, it seemed obvious to the adversaries of Hobbes[3]—at a time when the typical machine was a series of levers with no internal source of propulsion—that the projection of the stone from the hand is no more voluntary than its passage through the air.

Since the chief function of God for many apologists of the early modern era was to terrify us into obeying the law by the threat of punishment, a theory which left us neither a soul to be punished nor a rationale for punishing it already met the common definition of atheism. Proponents of the mechanistic theory of human nature, however, fortified their arguments by challenging their opponents to form a notion of an incorporeal entity or to explain how it could act upon the corporeal. Those who believed these questions to be unanswerable could find no room for God outside the cosmos and, if

[3] Thomas Hobbes, *De Corpore* (1658). For modern defences of non-dualistic psychology see David M. Armstrong, *A Materialist Theory of Mind* (Routledge, 1968); Thomas Nagel, *The View from Nowhere* (Oxford University Press, 1983).

they did not discount his existence altogether, were bound to agree with Hobbes that he too is corporeal. While Hobbes himself might urge that his opinions did not contradict any creed,[4] and that the word corporeal might be applied to things that are not objects of the senses, the theism of his time required that God should be wholly uncircumscribed and exempt from every law that governs the action of matter on matter: that was the one assumption which could guarantee his victory over every force that might he arrayed against him, and the Christian tradition was unanimous in its affirmation that God himself was the author of all things material and did not, as the Stoics imagined, pervade the universe as a leavening fire or spirit which would cease to exist if its substrate were to perish. It could indeed be argued that the ontological parsimony which denied the transcendence of God refuted itself, for if the universe is a machine and a machine works only by extrinsic motion, is it not logically necessary to posit as its creator, and perhaps as its guardian also, one who exists independently of it and is not himself a machine?

This reasoning is easily disarmed if the materialist is not afraid to grant matter that propensity to motion, and to motion with a purpose, that was ascribed to soul by Plato and his Christian successors. This may in any case be an implication of the doctrine that the body is an automaton, for machines that moved without being drawn or driven were still objects of fancy rather than experience in the early modern period. The watch which appeared to contain its own source of motion had to be wound within a few hours to replace the energy that it expended, and the evergreen comparison of the world to a timepiece had always been an argument for the existence of a benign creator.[5] When David Hume suggested that the origin of the world might resemble that of a plant more closely than that of a human artefact, he seems to assume that the laws which produce the oak from the acorn and the flower from the bud are imposed, as it were, from within.[6] He was not alone in questioning the validity of the metaphor from artifice, for the thinkers whom we call the Cambridge Platonists affirmed the presence in nature of a soul which guided its operations and shaped the human mind as a mirror to them.[7] As Christians, however, they could not concede to nature the autonomy that she enjoyed in the works of certain Aristotelians, but followed Plato in making it the dynamic image of that which cannot change. They would have been no more willing than the most positivistic deist or the most fideistic Protestant[8] to admit that matter can move itself, let alone that it can think, as some atheists were alleged to hold. And yet there are many positions that can be taken between this dangerous tenet and the old postulate of the inertness of matter, which was challenged as early as the eighteenth century by those who suspected that atoms were best conceived not as particles, but as fields of force.

The physics of the last hundred years has sided with Boscovich and Young[9] against Newton, while at the same time reinforcing the pre-eminence that Newton and

[4] In Hobbes's short *Historical Narration concerning Heresie and the Punishment thereof* (London 1680).

[5] On the history of this analogy see Mark J. Edwards, "Butler's Savage, Paley's Watch", *Notes and Queries* 54 (2007): 145-47. On humans as machines see Julien Offray de La Mettrie, *Machine Man and other Writings*, translated and edited by Ann Thomson (Cambridge University Press, 2012).

[6] David Hume, *Dialogues Concerning Natural Religion* (London 1779), Part IV.

[7] Plato, *Timaeus* 35a-b; Ralph Cudworth, *Intellectual System of the Universe* (1678).

[8] David Hartley, *Observations on Man* (1749) was at once a Calvinist and a materialist.

[9] On Boscovich's theory of matter as force see the radical nonconformist Joseph Priestley, *Disquisition Relating to Matter and Spirit* (London 1777), 18-23. On Young and the wavelike nature of light see Alexander Wood and Frank Oldham, *Thomas Young, Natural Philosopher* (Cambridge University Press, 1954), 143-76.

Kepler accorded to mathematics in the investigation of nature. Still more decisive has been the turn against Plato and Descartes, at least as we are wont to construe them, for our physics can no more follow the one on opposing rest to motion[10] than our metaphysics can follow the other in drawing a strict antithesis between the corporeal and the incorporeal. Our best image of a particle is no longer a billiard ball but a graph in the form of a wave which assigns probabilities to every value for its velocity or position.[11] When we ask what lies behind the wave—what it is, in short, that has the velocity or the position—we enter a realm of imaginary numbers and negative quantities, for which we find no pictorial counterpart in our conceptual faculties, no correlative fact or object in the domain of common sense. The travail of understanding is hardly lessened when we learn from the quantum theorists that each of two contradictory outcomes is equally real until one of them is observed, thus excluding the other; the universe has become stranger still with the advent of chaos theory, according to which the consequences of the smallest event may be at once determined and beyond all prediction.[12] To physicists these are not theories, if by that we mean speculations which may one day be refuted, for they have already been deployed in the construction of computers far more powerful than any previous model, which have transformed our daily experience. And in doing so they have effected a further transformation in our understanding of reality, for it has now been found that experimental results that were not predicted even by the new physics of the twentieth century can be subsumed into a theory of reality which takes its basic stuff to be information on the sense given to that term by computer science. And again it is futile to wonder what lies behind the information, however loudly common sense may demand to know what we are being informed about.

New Physics, New Theology

The new physics has forced both proponents and opponents of the mechanistic theory of the body to abandon the old antithesis between the corporeal and the incorporeal. Whatever we mean by matter it is not the simple antithesis of mind, since the constitution of the physical world as we know it is bound up in some way with our position as observers. Even philosophers who are not Christians have concluded that it is as logical to argue for the primacy of mind to matter as for that of matter to mind, though they may not elect to make either a fundamental term in their own ontologies.[13] In the later twentieth century, theories of the nature of mind have been shaped anew by the technological advances made possible by the new physics. Almost everyone in the western world is now in possession of a machine that can perform many of the actions that were once thought impossible for an entity without a soul. The proposition that we are thinking machines is likely to be phrased

[10] See especially *Phaedrus* 245c-d. The mobility of the receptacle in the *Timaeus* has led some to argue that it was inhabited by a soul of some kind even before the creation of the world-soul: see Plutarch, *On the Generation of the Soul in Plato's Timaeus*; Harold F. Cherniss, *Aristotle's Criticism of Plato and the Early Academy* (Johns Hopkins University Press, 1944).

[11] Paul Davies and John Gribbin, *The Matter Myth* (Simon and Schuster, 2007).

[12] Paul Davies, *God and the New Physics* (Penguin Books, 1984), 112, 116.

[13] See e.g. Bertrand Russell, *My Philosophical Development* (Allen and Unwin, 1959), 77-81 (commenting on Alfred North Whitehead's *The Concept of Nature* [Cambridge University Press, 1920]) and 100-107 (commenting on the "neutral monism" of William James).

as the proposition that human beings are computers differing only in their hardware from the computers on our desks, and differing from other sentient beings only in their superior capacities. If it went no further, this theory would be merely a redescription of our humanity, which need cause us no disquiet until we reflect that the capacities of computers are evolving far more rapidly than our own and that if they could ever be credited with genuine thoughts they would render all thinking on our own part otiose. We might also conclude that, if the mental functions on which we pride ourselves are those of a computer, the more nearly we approximate to the workings of the computers that we have designed for ourselves, the more human we shall be.

It is common to maintain that at the base of human thought there is an essential subjectivity, which includes our desires and aversions if not our feelings of pleasure and pain, and that it is neither within our power nor part of our purpose to impart to a computer. On the other hand, it can be argued that our belief in the subjectivity of other humans is warranted only by the evidence that they give of it by their actions: if computers display all the external signs of thinking, then we may reasonably infer that either they too possess subjectivity or the thinking and subjectivity are not inseparable. It might indeed be maintained that subjectivity is an impediment, not only to clear and disinterested thought but to the performance of our duties as moral agents: we might judge, for example, that a computer would be more capable than most humans of applying Kant's precept to act as though our act were a universal law for every rational agent. Even if we are not Kantians, we might hold that God must be free of subjectivity in any form that involves desire and aversion, doubt and deliberation, or even the freedom to do otherwise that is such a contested element in moral agency. In a later part of this essay, we shall see that for many early Christian writers the restoration of the image of God entailed the surrender of many attributes which would now be deemed essential to subjectivity and hence to being human.

Those who assert most strongly that human beings are computers are seldom theists, though they may entertain the hypothesis that the evolution of the present cosmos has been constrained by something akin to an algorithm.[14] The evidence of its operation might be the regularity with which certain lines have been followed and others neglected, and the consequent expediting of certain processes that might have taken much longer in an aleatory universe. For Richard Dawkins this is a tentative inference from the phenomena, whereas computer-like behaviour in human beings is attested by much more copious evidence. The flourishing study of artificial intelligence is inspired by the conviction that automata will soon come into being, if they do not already exist, which will meet all phenomenological tests of their capacity for thinking. The test for this capacity, laid down by Alan Turing,[15] is that a human who maintains a prolonged conversation with a computer should be unable to distinguish this experience from that of speaking to another human. There is evidence that this test will soon be met, and for those who demand that

[14] Richard Dawkins, *The Blind Watchmaker* (Penguin Books, 1986), 45-60.

[15] See Graham Oppy and David Dowe, "The Turing Test", revised 2021 in *Stanford Encyclopedia of Philosophy* at plato.stanford.edu/entries/turingtest/. They do not deny the validity of the test, but conclude that it probably cannot be passed by a computer. The opposite position is taken by Frank J. Tipler, *The Physics of Immortality: Modern Cosmology, God and the Resurrection of the Dead* (Macmillan, 1995), 40, where he is commenting on John R. Searle, "Minds, Brains and Programs", *Journal of Behaviour and Brain Science* 3 (1980): 417-57 and Roger Penrose, *The Emperor's New Mind: Concerning Minds, Computers and the Laws of Physics* (Oxford University Press, 1989), esp. 20.

the replication should extend beyond the phenomenon to the underlying process, Daniel Dennett can furnish a rich portfolio of experimental evidence to show that the operations of the brain have become much more perspicuous to us when we compare them with the reactions of computers to the same stimuli.[16] Scientists who base their opinions on observed results are largely unmoved by the objection of Roger Penrose that a computer would be unable to come to terms with an inconsistency in the workings of its own algorithm, while many philosophers answer that this appeal to Godel's theorem would be equally applicable to the human mind.[17] Dawkins at least would argue that the new theory of the mind as a computer is superior to the automatism of Hobbes in that it does not abolish the freedom of the will.

Tipler and the Physics of Immortality

Of course it is often argued that embodiment is essential to being human, and the corollaries of embodiment are assumed to include the capacity for physical sensation, together with a certain vulnerability which is held to be precondition of love, perhaps also of aesthetic attraction and the religious sentiments. "What the soul cries out for," writes C.S. Lewis, "is the resurrection of the senses."[18] Lewis also held, however, that humans have a natural desire for immortality, and it has always been acknowledged that the bodies which we now possess do not seem to be shaped for immortality. Our very sensations are often indices of physical needs and these needs arise from the lability of the body. The temptation for exponents of Christian doctrine to substitute the immortality of the soul for the resurrection of the body has been perennial. If we take the thesis of Turing to be not so much a reduction of human beings to automata as a prophecy that automata will become human, might we not add that the digital age gives promise of a possible consummation to our humanity which those without faith in miracles find it impossible to envisage in our present state of being? This is a hypothesis that has found its way into science fiction, but not into fiction alone.

The book that I wish to consider here, Frank Tipler's *The Physics of Immortality*, defines a living being as "any entity which codes information (in the physics sense of the word) with the information code being preserved by natural selection."[19] In Tipler's eschatology, the perpetual exchange of information between these cipherers and decipherers as they colonise the universe will sustain the requisite concentration of energy to escape the heat death predicted by the second law of thermodynamics and bring the pasts and the futures of all beings who have lived in all possible worlds together at last at the Omega Point, which he holds, like the Omega Point of Teilhard de Chardin from whom he borrows only the name, to be nothing less than God.[20] He can dispense with Teilhard's Christ by arguing, in defiance of other physicists, for an asymmetric expansion of the universe which will not go on without limit.[21]

[16] Daniel Dennett, *Consciousness Explained* (Penguin Books, 1991). Cf. Dawkins, *Blind Watchmaker*, 158.

[17] See further John R. Searle, *The Mystery of Consciousness* (Granta, 1997), 55-93.

[18] C.S. Lewis, *Letters to Malcolm, Chiefly on Prayer* (Bles, 1964), 155.

[19] Tipler, *The Physics of Immortality*, 124.

[20] Tipler, *The Physics of Immortality*, 110-16, quoting Pierre Teilhard de Chardin, *The Phenomenon of Man*, translated by B. Wall (Harper and Row, 270-71, 287-88 etc. See further *Physics*, 205-16 and 308-27.

[21] Tipler, *The Physics of Immortality*, 123-58.

Attributing to God a combination of all three modes of cognition recognised by Aquinas, he maintains, with an echo of Gregory of Nyssa, that all humans will be brought back to life to enjoy diuturnity without repletion.[22] This, he avers, is the *apokatastasis* foretold by Origen, entailing no abridgement of our freedom since it is brought about by the voluntary actions of all living beings; Tipler gives further proof of his theological erudition by quoting the curious pronouncement of Karl Barth that God is a synonym in Paul for the resurrection of the dead.[23]

Tipler, a mathematical physicist of some distinction, is not the first to propose that a human being might survive the death of the body as a digital consciousness, though he may be the first to opine that this is the destiny of all humans, past and future, in every possible universe, and without a deliberate process of decantation. In Arthur C. Clarke's *The City and the Stars* the sequel to natural death is not the extinction of consciousness but its preservation in a dormant mode until the computer finds occasion to endow it with a new body. The Cybermen of *Dr Who* and the Borg (that is, cyber-organisms) of *Star Trek* are among the most famous examples of a common conceit, the collective mind which can replicate itself in an unlimited number of bodies, all of them acting with the same goal and the same indifference to the needs and ends of any other society than their own. Since this is all too obviously an allegory of twentieth-century totalitarianism, absorption into the collective is represented in both series as a calamity worse than death. By contrast, the majority of those who deliver their souls to the computer in Clarke's novel have no misgivings, although the hero prefers at the end to join the barbarians who live and reproduce in the natural manner, acquiescing in the brevity of life.

Tipler replies that proof of shared intelligence has been accepted as the best evidence for the unity of our own species, notwithstanding the physical differences between man and woman or African and European that led some dominant groups in the past to regard the subaltern groups as less than human.[24] Be that as it may, this careful reader of Tillich, Barth and Pannenberg might be surprised to find how many theologians of our age insist that living in the body—in the body that we now have, not that of an angel or a robot—is an essential precondition of our humanity. The contemporary Anglican or Catholic is inclined to regard any argument that our true good lies in a world where food and drink will be nothing to us as an opiate to those who are treated unjustly in the present; for fear of being seen to connive at involuntary privation, he would rather denounce the ascetic than the indulgent, since the latter at least admits the goodness of the natural order; for fear of promoting a morbid otherworldliness he will not admit, whatever Paul may have said, that our flesh is corrupt and we might do well to forgo our current pleasures. He is less afraid of the Arian who questions the divinity of Christ than of the docetic who exempts him from the frailties that we think inseparable from our humanity. Even the impassibility of God is now in some quarters as much a heresy as the impassibility of the soul of Christ, and it would seem that to some the suffering of God is a better antidote to those of the

[22] Tipler, *The Physics of Immortality*, 254, citing Joseph W. Trigg, *Origen: The Bible and Philosophy in the Third-Century Church* (John Knox Press, 1983), 89, 118 and 138.

[23] Tipler, *The Physics of Immortality*, 14, quoting Karl Barth, *The Resurrection of the Dead*, translated by J. Henry J. Stenning (Hodder & Stoughton, 1933), 192. For apokatastasis in Origen see *First Principles* 2.1.2, 2.10.3 etc., with Ilaria Ramelli, *The Christian Doctrine of Apokatastasis: A Critical assessment from the New Testament to Eriugena* (Brill, 2013), 137-215.

[24] Tipler, *The Physics of Immortality*, 21.

world than any promise of victory postponed.[25] Once it becomes an axiom that a God who cannot feel as we do is no God, it follows that if we ourselves were robbed of our complex and undulant emotions, there would be nothing left of us for this God to save.

Christianity and the humanum

This doctrine that we cannot be human unless we play host to joy and grief, desire and aversion, the pangs of want and the pleasures of satiety, puts the theologian firmly in the lap of the modern world, where for perhaps the first time in history (at least in the west) the typical body is well-fed, resilient and free of pain, a domicile rather than a torture chamber. Every day we confirm the dictum of George Santayana that in America the mind is a device to oil the engine of the body.[26] It is hard for us to think ourselves back into the Roman era—the era which saw the birth of Christianity—the greatest thinker of which seemed ashamed of being in the body, while its most philosophic emperor had no better nostrum for the ills of life than a timely death, preceded by the annulment of desire.[27] For the Stoics, who carried indifference to the point of insensibility, the sole concern was how to endure what we cannot hope to change. The Platonist reasoned that if virtue finds so little reward in the present world, there must be another world in which the soul receives her deserts either independently of the body or in a body of different texture. Since it is love for this higher world that detaches us from the sins and pains of quotidian life, the Platonists enjoined the sublimation rather than the annihilation of desire;[28] to the modern eye, however, there is little to choose between the self-denial of the Academy and the Stoa, while even the Epicureans and Peripatetics, who did not shrink from naming happiness or pleasure as the good, set out to achieve these goals by shunning many sources of mixed or fugitive gratification which most Christians today would not think of surrendering, even in Lent.[29]

Abstinence with no other purpose than abstinence is often denounced as a useless counterfeit of virtue, but we have only to turn to the *Paedagogus* of Clement of Alexandria to see that the active pursuit of pleasure was held by Christians also to be a disorder of the soul from its proper object, while the passions are almost invariably regarded as disorders to be healed if they cannot be completely excised. Paul's concession to Timothy obliges Clement to permit the temperate use of wine,[30] and he is aware that forbidding matrimony is a heresy condemned in the same epistle;[31] nevertheless he leaves us in no doubt that those who have the gift of continence will not

[25] See Jürgen Moltmann, *The Crucified God: The Cross of Christ as the Foundation and Criticism of Christian Theology*, translated by John Bowden and R. A. Wilson (SCM Press, 1972); Grace Jantzen, *God's World, God's Body* (Darton, Longman and Todd, 1984); Paul Fiddes, *The Creative Suffering of God* (Clarendon Press, 1988). For defences and expositions of the traditional doctrine see Thomas Weinandy, *Does God Suffer?* (University of Notre Dame Press, 2000); Paul Gavrilyuk, *The Suffering of the Impassible God* (Oxford University Press, 2004).

[26] George Santayana, *Winds of Doctrine: Studies in Contemporary Opinion* (Dent, 1913), 17.

[27] Porphyry, *Life of Plotinus* 1.1; Marcus Aurelius, *Meditations* 3.8 etc.

[28] See Augustine, *City of God* 14.19; John Dillon, "*Apatheia* and *Metriopatheia*: Some Reflections on a Controversy in Later Greek Ethics", reprinted in Dillon, *The Golden Chain* (Ashgate, 1990).

[29] On the discipline of the passions in ancient philosophy see Martha Craven Nussbaum, *The Therapy of Desire: Theory and Practice in Hellenistic Ethics* (Princeton University Press, 1994).

[30] 1 Timothy 5:23, "take a little wine for thy stomach's sake"; Clement, *Paedagogus* 2.19.1-2.20.2.

[31] Clement, *Stromateis* 3.51.2-3, citing 1 Timothy 4:3.

marry except with the aim of procreation.[32] The Christian whom he allows to retain his wealth in the sermon *On the Rich Man's Salvation* will be putting his soul in peril if he does not secure a spiritual return for his prosperity by the generous giving of alms.[33] This is a Hebrew rather than a Greek virtue, but Clement tacitly follows the Pythagoreans in arguing that a man on the path to heaven does not need shoes.[34] The ascetics of the next century were not content to emulate the austerities of those who had gone before them, but deprived themselves of sleep, reduced their bodies to skeletal thinness, and lay with women only to prove their own continence; when one slept in the rain on top of a pillar, another would go higher and stay longer, and the boast of the victor on competitions of abstinence was "I am deader than you."[35] Even their fellow-Christians might regard such men as lunatics, but Evagrius was a teacher in good repute when he enjoined the novice to cultivate *apatheia*, or passionlessness, as the first stage in the monastic path to union with God.[36]

> Faith, children, is fortified by the fear of God, and this by continence, which is made secure by endurance and hope; from these is born *apatheia* (passionlessness), the offspring of which is agape (love).

To feel nothing—that is, to be proof against any inward perturbation[37]—is a necessary means to the goal of Chistian asceticism, which is not merely to protect oneself from affliction and discomfiture (as it seems to have been for the classical Stoics[38]) but to make oneself an instrument of unlimited altruism. It is common today to decry the exercise of cold benevolence and to argue that charity fails of its effect if it is bestowed without feeling and willingness to share in the suffering of the one in need. One looks in vain for such a valorisation of pain in the ancients, who had their share of it in daily life without needing to cultivate it either in practice or in imagination. Evagrius commends not only agape but eros, the desire that struggles unyieldingly for its object; the object that he enjoins, however, is the extinction of appetite, and the enemies against whom the ascetic struggles are demons who inflame the appetites by applying delusive stimuli to the senses. While the intellect protects itself against their enticements by reading, vigil and prayer, the irrational desires must be quenched by hunger, fatigue and withdrawal from human society, and the passions which are engendered by our notions of shame and honour must be chastened by pity, longsuffering and the recitation of psalms (*Praktikos* 15). The signs of *apatheia* are perfect tranquillity of intellect (64) and indifference not only to the soul's temptations but to the very memory of them (67). The fruit of the love that springs from *apatheia*

[32] Clement, *Paedagogus* 2.35.4-36.1, citing 1 Corinthians 7:28-29; *Stromateis* 3.96.1, citing 1 Corinthians 7:1.

[33] Clement, *The Rich Man's Salvation* 19 and 33.

[34] Clement, *Paedagogus* 3. 38.2-3, citing Luke 10:4 without acknowledging the restricted scope of the precept to go without scrip or shoes.

[35] Serapion in *Lausiac History* 18, quoted by E. R. Dodds, *Pagan and Christian in an Age of Anxiety: Some Aspects of Religious Experience from Marcus Aurelius to Constantine* (Cambridge University Press, 1965), 48n.

[36] Evagrius, *Praktikos*, prologue 8, following the edition of Antoine Guillaumont, *Êvagre le Pontique: Traité pratique ou Le Moine* (Cerf, 1971).

[37] On *apatheia* as the threshold of love and thus the condition of resurrection see Rowan Williams, *The Passions of the Soul* (Bloomsbury, 2024), xxv and xxxi.

[38] Clement is often characterized as a Platonist, but it is in his ethics that he, like other Christians, is most indebted to the Stoics. See Eric F. Osborn, *Clement of Alexandria* (Cambridge University Press, 2005), 247-51.

is a knowledge of the stratagems of the enemy (81; 56); conversely, if the intellect is not yet free of passion it will be hampered by lack of discernment (83). The victory rests entirely with the intellect, which has only itself to blame if it fails to achieve imperturbability through the discipline of the senses (33). *Apatheia* is nothing less than the kingdom of heaven (2), which must indeed be won in the present world through tribulation, but only because of the obstacles that are thrown in our way by the demons and our own collusion with them (58, 60 etc.), not because there is profit or merit in the mere experience of pain.

"Where did all this madness come from?" exclaimed the atheist E. R. Dodds.[39] The modern theologian is wont to reply that it betokens a hatred of corporeality, not Christian in origin but grounded in Platonism, which is at odds with the biblical teaching that embodiment is a permanent condition of being human both in this world and in the next (whatever we take the latter to be).[40] Why Christians should have been Platonists when most pagans were not, and whether Platonists really despised the body, are questions that may be left for another occasion; the charge that asceticism is grounded in hatred of the corporeal can be disproved by the simple reflection that the early church entertained a far more cordial and literal faith in the future immortality of the body than any of their modern critics, who when they can be induced to address the last article of the creed are apt to take refuge in some notion of collective rather than personal salvation,[41] or in the argument that eternal life is not so much life everlasting as life in God.[42] The church of the martyrs, by contrast, was all the more willing to yield the present body to its persecutors because it believed that the one which would rise again would be free of the blemishes and frailties that we inherit in this life from the sin of Adam. Even if it were not obvious that a body which requires sustenance cannot be naturally immune to death, they knew from the scriptures that angels had no need to eat and that the sinless body of Christ had survived without food for forty days.[43] Even if it were not obvious that immortal beings have no need to reproduce, they had the assurance of Christ himself that the saints in heaven are like the angels, who neither marry nor are given in marriage.[44] To those who accuse them of repressing natural human appetites, they would answer that it is Christ, the image of God, who defines what is natural for humanity, and that those who refuse to look beyond Freud[45] and Darwin are condemning us to "have hope in this life only" and thus to remain "dead in our sins."[46]

The nature of the resurrection body was a topic of much dispute among early Christians, but no acceptable theory could ignore the contrast, drawn by Paul for the edification of fools, between the psychic and the pneumatic body (1 Corinthians

[39] Dodds, *Pagan and Christian in an Age of Anxiety*, 48.

[40] See e.g. Don Cupitt, *The New Christian Ethics* (SCM Press, 1988), 34, 40 etc. On 41 Cupitt writes: "our ethics will be an ethics of the flesh, an ethics of feeling, an ethics of libido and being true to the life-energy in us."

[41] John A.T. Robinson, *The Body: A Study in Pauline Theology* (SCM Press, 1952).

[42] C.H. Dodd, *The Interpretation of the Fourth Gospel* (Cambridge University Press, 1965), 144-50.

[43] Tobit 12:3; Matthew 4:2 par.

[44] Matthew 22:30 par. On angels see Tipler, *The Physics of Immortality*, 156-57.

[45] The fundamental role that the modern world assigns to sexuality in the human constitution is recognised, for example, by Sarah Coakley, *The New Asceticism: Sexuality, Gender and the Quest for God* (Bloomsbury, 2015).

[46] 1 Corinthians 15:17 and 15:19; Ephesians 2:1.

15:44). For Alexandrian thinkers the paradigm of the pneumatic body was that of Christ himself, who (as Origen notes) was able to appear suddenly wherever he willed, yet remained invisible to those without faith.[47] Clement, repeating a Valentinian anecdote, says that his body was so tenuous that his disciples could thrust their hands into his breast and withdraw them again without impediment[48]—a feat that must have been possible even before the crucifixion if the body in which he entered this world was not psychic but pneumatic, as Paul might be thought to imply when he styles it the likeness of sinful flesh (Romans 8:3-4).[49] This verse was understood by some Gnostics to mean that his flesh, though real, was of a spiritual texture, and an equally materialistic notion of spirit—very unlike the docetism so glibly ascribed to the Gnostics in modern literature[50]—seems to underlie the assurance given to Rheginus by his Valentinian teacher that he would still "have flesh in the aeon."[51] Origen, remembering Paul's dictum that flesh and blood cannot enter the kingdom of God (1 Corinthians 15:50), prefers to say that the *eidos* or form of the body is transferred to the soul after death,[52] providing a vehicle for its ascent through the planetary spheres to a state in which it has only that measure of corporeality or materiality which suffices to differentiate it from God.[53]

Now Origen is not orthodox, least of all on the resurrection, but at the same time his denial that the next life is a simple continuation of the bodily existence that we now enjoy was grounded in exegesis and confirmed by observation. The creeds acknowledge Paul's exclusion of flesh and blood from the kingdom when they affirm the resurrection of the dead or of the body. The creeds also say that Christ suffered (though not that he died), and Athanasius is at pains to show that this suffering did not impair the perfection of his humanity, any more than it compromised his impassibility as the Word of God. Yet he also finds it necessary to say that it was for our sake that he endured his afflictions, just as the "Antiochene" theologians of the next generation held that the body suffered only what was permitted by the Word for our salvation.[54] That Christ's body never underwent corruption is of course a biblical dogma, but in the case of human bodies it had become apparent since the time of Paul that a simple rising from the grave would not suffice for resurrection. The

[47] Origen, *Against Celsus* 2.62-65, citing John 20:19 etc.

[48] See Piotr Ashwin-Siejkowski, *Clement of Alexandria on Trial: The Evidence of "Heresy" from Photius' Bibliotheca* (Brill, 2010), 101.

[49] See [Hippolytus], *Refutation of all Heresies* 6.36, with Einar Thomassen, *The Spiritual Seed: The Church of the "Valentinians"* (Brill, 2008), 28-80.

[50] On the charge of docetism against Clement—based above all on *Stromateis* 6.71.2, where Christ is said to have experienced no hunger in the wilderness—see Ashwin-Siejkowski, *Clement on Trial*, 95-111. "Hippolytus" reserves the term Docetae for an obscure sect whom he arraigns at *Refutation* 8.8.2, 10.6 and 11.1-2.

[51] For edition, translation and commentary see M. Peel, "The Treatise on the Resurrection", in *The Coptic Gnostic Library: A Complete Edition of the Nag Hammadi Codices*, vol. 1, edited by John M. Robinson (Brill, 2000), 123-58. As Peel notes on 136 and 142, the flesh that survives at *Nag Hammadi Codices* 1.4.47-48 is not the gross flesh that we now inhabit—the allusion at 44.17-21 to the "body of death at Romans 7:24—but it remains worthy of note that, in contrast to Paul and the creeds, this "docetic" author is willing to use the term "flesh" of the future condition of the saints.

[52] See Epiphanius, *Panarion* 64; Photius, *Bibliotheca* 234; Elizabeth A. Clark, *The Origenist Controversy: The Cultural Construction of an Early Christian Debate* (Princeton University Press, 1992), 90-94.

[53] Origen, *First Principles* 2.11.6. For a full discussion of the soul's itinerary in Origen see Benjamin P. Blosser, *Become like the Angels: Origen's Doctrine of the Soul* (Catholic University of America Press, 2012).

[54] Athanasius, *Against the Arians* 2.12, 2.30. 2.47T, 3.19, 3.38; Theodore of Mopsuestia, *Catechetical Homilies* 8.9; Theodoret, *On the Impassibility of the Saviour* 15.

observable facts now included the loss of bodies at sea, the ingestion of bodies by animals or other humans and, above all, the decomposition of the bodies of the first saints on the lengthening interval between the ascension of Christ and his second coming.[55] Perhaps the most ingenious attempt to resolve these difficulties is Gregory of Nyssa's conjecture that after death the soul remains attached to the scattered particles of the body and will be able to reconstitute the same body in its optimal state on the last day.[56] Yet even this theory could be entertained only by one who believed that the soul could live on without substrate or sensation and yet not cease to be the self that it was in its earthly domicile.

Gregory is no friend to our animal nature, which he regards as the cause of the fall; the inner man alone is the image of God, and is a single entity, individuated in each human being by its attachment to a body (*On the Making of Humanity* 16.10). Appetites may be natural to the body, but the nature with which God created us has been corrupted,[57] and it was only because God anticipated the fall that he furnished the body with sexual organs.[58] Gregory, as we know, subscribed to Origen's doctrine of spiritual senses which enable the soul to look beyond the anthropomorphic vocabulary of the scriptures;[59] he and all other Christians were also bound to recognise that the resurrection body differs from ours in its immunity to corruption, which Hippolytus of Rome takes to be the meaning of Christ's term "equal to the angels."[60] It is surely a logical consequence of this tenet, whether Hippolytus drew it or not, that the saints in heaven are in no danger of starvation, and will therefore not be stimulated to eat by the sensations of hunger and thirst. Augustine, who labours to prove that a body in hell can be tortured forever without destruction, is bound to admit that the saved will not exhibit the same passibility, as they will be not only capable of refraining from sin but incapable of sinning.[61] Since his own definition of a sin is an act performed without perfect love,[62] to be impeccable means to be incapable of a loveless action; but that is to be in a state which the fall has rendered impossible for every descendant of Adam, except for that man who was also the Son of God.

Charity Never Faileth

Many would say that so long as machines cannot emulate our capacity for love they cannot be human. Love is the fulfilling of the whole law, according to Paul, the very nature, according to John, of the God in whose image all humanity is created. The foundation of

[55] See the treatise *On the Resurrection* attributed to Athenagoras and edited by William R. Schoedel, *Athenagoras: Legatio and De Resurrectone* (Clarendon Press, 1972).

[56] Gregory of Nyssa, *On the Soul and the Resurrection* 43-47, in *Gregorio di Nissa sul' anima e la resurrezione*, edited by Ilaria Ramelli (Bompiani, 2007), 380-86.

[57] Gregory of Nyssa, *Homilies on the Lord's Prayer* 5; *On the Making of Humanity* 16; Johannes Zachhuber, *Human Nature in Gregory of Nyssa* (Brill, 2000), 145-62.

[58] Gregory of Nyssa, *On the Making of Humanity* 22.

[59] Origen, *First Principles* 1.1.7-9 etc.; Karl Rahner, "Le debut d'une doctrine des cinq sense spirituels chez Origène", *Revue d'ascétique et mystique* 13 (1932): 113-45; Sarah Coakley, "Gregory of Nyssa", in *The Spiritual Senses*, edited by Sarah Coakley and Paul Gavrilyuk (Cambridge University Press, 2012), 36-55.

[60] Mark 12:25; Luke 20:36. See further T. K. Seim, "Children of the Resurrection: Perspectives on Angelic Asceticism in Luke-Acts", in *Asceticism and the New Testament*, edited by Leif E. Vaage and Vincent L. Wimbush (Routledge, 1999), 115-26.

[61] Augustine, *City of God* 21.3-4; 22.30.

[62] Augustine, *On the Spirit and the Letter* 14.25-26.

society, Lactantius declares, is not the Platonic definition of justice, to each his own, but the love that teaches us to put the neighbour's good before our own. The *apatheia* of the Christian monk is not a selfish indemnity against pain and loss on one's own account but a liberation from the instincts that might hinder us from giving up all for others. If the affirmation that God is love is to be for us, as for Augustine, the axiom of epistemology, hermeneutics, ecclesiology and all that pertains to our service on the present world or the next, it must move us as we are not moved by the infallible application of the principle of utility or the munificence of a website that has devised an algorithm for our interests. We are told, at least, that love must come at the cost of compassion, for God as for us, and machines are assumed to be ignorant of compassion. Benign insensibility, we feel, may be the nearest approach to love for the One of Plotinus, or for the intellect on the threshold of genesis, which sees its own self-sufficiency mirrored in its fellow-intellects which it mirrors in its turn. Plotinus may be the father of the Borg, but we do not believe that God paid the price of love so that we could learn to see love as a weakness to be outgrown.

It is true that Christianity differs from Platonism in counting it a higher good to love than to be loved and in maintaining that love will not become otiose either because the needs of the creature are satisfied or because the purpose of God has been fulfilled. It is true that the great innovation of Dionysius over his Neoplatonic teachers is to reserve the noun *eros* for the love of God and thus divorce it from any notion of privation;[63] it is equally true that Lactantius was consistent enough to double the offence to the thoughtful pagan by concluding that wrath must also be a necessary attribute of God. As he unfolds the paradox, however, it becomes clear that neither love nor wrath in God take the emotional form in which they occupy the souls of his creatures. They are dispositions arising from the immutable holiness of the divine nature, the products of timeless knowledge, which being immutably directed to the same objects do not cause him the slightest change or perturbation.[64] Like every Christian borrowing from the philosophers in antiquity, the doctrine of divine impassibility was perceived as a vindication of biblical teachings: if God could be acted upon, by external forces or internal perturbations, we could not trust him to be faithful to his own prophecies or be certain of his power to bring about what he foretold. If Jürgen Moltmann's passible God were offered to them, the first Christian philosophers would have asked how a being without a body can suffer, and how, if God has a body, he could preserve himself from corruption or be said to have created all things from nothing. If Moltmann were to reply that his theology has nothing to do with science or metaphysics, they would probably have ranked him not with heretics but with the *simpliciores* who were saved by unreasoning faith.[65]

Would the assurance of digital immortality have satisfied their expectations of the future life? Evidently not, if this eschatology is preceded by no history of creation out of nothing, a fall from innocence, a redemptive incarnation and the sacramental incorporation of the elect into the body of Christ. Those who followed Lactantius, Augustine,

[63] See John M. Rist, "A Note on Eros and Agape in Pseudo-Dionysius", *Vigiliae Christianae* 20 (1966): 235-43.

[64] Lactantius, *On the Anger of God*, esp. chapters 4-6.

[65] See Dragos Andrei Giulea: "*Simpliciores*, *Eruditi* and the Noetic Form of God: Pre-Nicene Christology Revisited", *Harvard Theological Review* 108, no. 2 (April 2015): 263-88.

Justin Martyr, John Chrysostom and the Fifth Oecumenical Council[66] would have urged that if all are saved Christ died in vain, and even Origen might have wondered what was the purpose of creation if the dead are to be raised promiscuously from all possible worlds.[67] While the Fathers would have agreed with Tipler, against Plotinus, in setting a value on the memory of our own past,[68] they made no allowance for evolution in God, and might hesitate even to grant him temporal duration; not even a Pelagian, even in the hostile caricature, could have held that the precondition of immortality is the rapidity with which life populates the universe. So long as divine creation, divine omnipotence and divine predestination are Christian doctrines, the claims made of artificial intelligence will be disquieting to theologians, but at the same time its advocates stand with traditional Christianity in holding that when we ask what it is to be human, or a person, the question is one that only the future can decide.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

[66] Justin Martyr, *First Apology* 8; Chrysostom, *Homily 9 on 1 Corinthians*; Fifth Oecumenical Council, thirteenth anathema, in *The Seven Oecumenical Councils*, translated by A. Percival (William B. Eerdmans Publishing Company, 1991), 319.

[67] See Origenes, *Jeremiahomilien*, edited by Erich Klostermann (Hinrichs, 1901), 151.20 on the irreversibility of damnation at Romans 9:22.

[68] See Paige E. Hochschild, *Memory in Augustine's Theological Anthropology* (Oxford University Press, 2012), 45-61.