Abstract:
Abandoning the search for natural teleology was a harbinger of modern science. Francis Bacon and others believed that the search for final causes corrupted science. Has this belief been tested and found wanting? Two reasons should lead us to think that natural teleology is ripe for review. Firstly, contemporary scientists and philosophers have proven unable to reduce or eliminate teleological talk from biology, medicine, even cosmology. Secondly, the anti-teleological reductive Darwinian account is unable to explain objective value reason; it is unable to explain the presence of mind in the cosmos. Historically, teleological accounts have invoked divine mind, so some fear that reconsidering natural teleology risks sullying nature with divinity. Thomas Nagel defends a secular alternative – teleology without theology. His hypothesis of ‘naturalized’ Platonism or Aristotelianism is a non-religious answer to the “cosmic question” of how rational, moral creatures like us came to be, and how we fit in. Though he personally rejects theism, I argue that Nagel’s hypothesis is compatible with (certain kinds of) atheism and (certain kinds of) theism, which should commend it to both kinds of philosophers. Further, I argue that Nagel’s argument against anti-teleological naturalism is sound, but that his secular alternative is not very Platonic or Aristotelian. It may be right, but it is nothing more or less than Nagelian.

I. Nagel’s Project

Introduction
Abandoning the search for natural teleology was a harbinger of modern science. Francis Bacon and others believed that the search for final causes corrupted science. Has this belief been tested and found wanting? Two reasons should lead us to think that natural teleology is ripe for review. Firstly, contemporary scientists and philosophers have proven unable to reduce or eliminate teleological talk from biology, medicine, even cosmology. Secondly, the anti-teleological reductive Darwinian account is unable to explain objective value reason; it is unable to explain the presence of mind in the cosmos. Historically, teleological accounts have invoked divine mind, so some fear that reconsidering natural teleology risks sullying nature with divinity. Thomas Nagel defends a secular alternative – teleology without theology. His hypothesis of ‘naturalized’ Platonism or Aristotelianism is a non-religious answer to the “cosmic question” of how rational, moral creatures like us came to be, and how we fit in. Though he personally rejects theism, I argue that Nagel’s hypothesis is compatible with (certain kinds of) atheism and (certain kinds of) theism, which should commend it to both kinds of philosophers. Further, I argue that Nagel’s argument against
anti-teleological naturalism is sound, but that his secular alternative is not very Platonic or Aristotelian. It may be right, but it is nothing more or less than Nagelian.

Outline

In this paper, I defend Nagel’s natural teleology hypothesis as a tenable view for both atheists and a certain kind of theist. First, I summarize the main argument of *Mind and Cosmos* in two clean syllogisms (the “Nonreductionism” argument, and the “Nontheism” argument). Together, these entail Nagel’s hypothesis of natural teleology. Second, I’ll provide a bit more detail about ‘natural teleology’. Third, I shall explore in detail the two syllogisms, endorsing the first (Nonreductionism) argument, but disputing the conclusion of the second (Nontheism) argument. In short, I shall point out that the historical Plato or Aristotle were theists and that Platonism and Aristotelianism are compatible with certain kinds of theism.

Cosmic Question

Nagel’s (2012) *Mind and Cosmos* offers his latest answer to what he playfully calls “the cosmic question”. The cosmic question is this: “How can one bring into one’s individual life a recognition of one’s relation to the universe as a whole, whatever that relation is?” The cosmic question is more than an intellectual puzzle: it is also “a question of attitude” and “temperament.” He calls the cosmic question a “religious” question that interests those with a “religious” temperament. But it does not necessarily require a religious answer. Particular religions offer answers to the question of our place in the cosmos and “hardheaded atheism” dismisses the question. Nagel, on the other hand, takes the question seriously but wants a secular answer. Nagel’s nonreductive atheism renders him liable to criticism from both nonreductive theists and reductive atheists. He is well aware of his idiosyncracy, and embraces the role of gadfly: “In the present climate of a dominant scientific naturalism, heavily dependent on speculative Darwinian explanations of practically everything, and armed to the teeth against attacks from religion, I have thought it useful to speculate about possible alternatives.” The vociferous reviews indicate that his “speculations” have done their work.

His defense of natural teleology of *Mind and Cosmos* is intelligible in this light. Indeed, teleology is usually allied with theism, but Nagel argues (or hopes) it need not. Natural teleology is part of his strategy to answer the cosmic question while avoiding both reductionistic atheism and supernaturalistic theism.

2. Ibid., 5. The probing exploration of “a way to live in harmony with the universe, and not just in it” is also the theme *The View from Nowhere*. 3. Ibid., 5.
5. See the *Weekly Standard* piece by Andrew Ferguson, the John Dupre review in *Notre Dame Philosophical Reviews*, and anywhere online.
II - The Argument

Natural Teleology

So what is natural teleology? Telos is, of course, a Greek word usually customarily “end” or “purpose.” But we ought not let customary translations limit our thinking. The word is bursting with an array of possible meanings, including “definite point”, “goal”, “purpose,” “cessation,” “order,” “prize,” and “realization.” Hence, telos does not always – perhaps not even primarily – denote the intentional purpose of an agent. There exists plenty of “order”, “definite points”, and “realizations” in non-human nature. Sunlight heats our planet without ever meaning to; hearts pump blood without wishing to; natural selection “selects” or “preserves” adaptive mutations without a plan. So by ‘teleology’, let us mean any end-directed activity, with or without purposive intention. And by ‘nature’ let us mean this whole cosmos, including the earth, the galaxies, and rational creatures like us.

So natural teleology – or teleological naturalism – is the notion that there are some genuine teleological facts of nature, explicable by teleological laws, even without purpose.

II. The Argument

The argument for natural teleology may be summarized in two neat syllogisms. The first is the deconstructive bit against reductive Darwinian naturalism; the second is the constructive bit for nontheistic teleological naturalism. Let’s consider each:

1. The Nonreductionism Argument:

   1. If reductive Darwinian naturalism is true, then human practical rationality is not objective.
   2. But practical rationality is (most likely) objective.
   3. Therefore, reductive Darwinian naturalism is (most likely) false.

2. The Nontheism Argument:

   1. Either a supernaturalistic teleology (such as Christianity) or secular, natural teleology (such as naturalized Platonism or Aristotelianism) is most likely true.
   2. But supernaturalistic teleology is false (or perhaps “unacceptable”).

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6. Henry George Liddell and Robert Scott, *An Intermediate Greek-English Lexicon: Founded Upon the Seventh Edition of Liddell and Scott’s Greek-English Lexicon* (Harper & Brothers, 1896) compare with Strong’s 5056: “telos, from primary tello (to set out for a definite point or goal); properly, the point aimed at as a limit, i.e. (by implication) the conclusion of an act or state (termination (literally, figuratively or indefinitely), result (immediate, ultimate or prophetic), purpose); specially, an impost or levy (as paid); continual, custom, end(-ing), finally, uttermost.”

7. Some define nature as “that which sciences study” but I prefer to avoid the obligation to define which disciplines count as ‘sciences’.

8. For his most robust defense of this premise, see Thomas Nagel, *The Last Word* (Oxford University Press, 2001).

3. Therefore, secular, natural teleology (such as naturalized Platonism or Aristotelianism) is most likely true. Let’s look at each syllogism in a bit more detail.

**Nonreductionism**

The first premise (of the Nonreductionism argument) was that “If reductive Darwinian naturalism is true, then human practical rationality is not objective.” Nagel follows Sharon Street in thinking moral realism to be incompatible with the standard Darwinian account of humans.

The key premise is the second one: “practical rationality is (most likely) objective.” How can we be so confident in the objectivity of morality and rationality so as to deny reductive Darwinism?

Briefly, moral realism is a “defeasible presumption.” Most of us pre-reflectively have no objections to the seeming fact that some reasons for acting are good reasons, and others bad; we have no objections to the seeming fact that we really ought (at least sometimes) to treat the interests of others as equal to our own. These primary normative facts have a very strong, “quasi-analytic” force to them. So, the burden of proof lies heavily on the challenger view. The challenger is “subjectivism.” Nagel’s dummy term for norm-expressivism, quasi-realism, constructivism, or any view in which “evaluative and moral truth depend[s] on our motivational dispositions and responses.” Morality debunkers such as Hume and Mackie deny the appearances. But if their subjectivism is implausible, objectivism about value wins by default.

First, subjectivism contends that value judgments with objective purport are really just masks for subjective psychological states. Indeed, he
concedes, some “pockets of... subjectivity” seem objective but can be “un-masked”, such as grammar and etiquette. However, we cannot justifiably generalize that all seemingly objective judgments are really subjective. Instead, they ought to be accommodated within an overall objective view.

Second, subjectivism contends that all our motives and rationalizations stem from our psychology. But he urges his version of Moore’s open question argument. It is always in order to ask, Ought I to be motivated by my psychological states? Certainly, ethics begins with natural states. But it progresses from these “by the subjection of these impulses to examination, codification, questioning, criticism, and so on.”

Despite these cutting criticisms, Nagel admits that he has not refuted subjectivism and that it may be true after all. Nevertheless, he sides with the defeasible presumption: “the realist position... that our responses try to reflect the evaluative truth and can be correct or incorrect by reference to it.” If values about what is to be pursued and avoided are real and objective, then the faculty by which we know them (practical reason) can – and often does – know them. Nagel concludes:

I remain convinced that pain is really bad, and not just something we hate, and that pleasure is really good, and not just something we like. That is just how they glaringly seem to me, however hard I try to imagine the contrary, and I suspect the same is true of most people... the scientific credentials of Darwinism... are not enough to dislodge the immediate conviction that objectivity is not an illusion with respect to basic judgments of value.

This, in brief, is Nagel’s Nonreductionism argument that reductive Darwinian naturalism is (most likely) false.

Nontheism

The second syllogism is, if possible, even more controversial. The first premise of the second syllogism was, recall, the disjunction between a supernaturalistic teleology or natural teleology. Nagel concedes that teleological explanations are often appeals to the actions of an agent, but he maintains that we are not rationally obligated to countenance a supernatural designer.

While being rather hospitable to his theistic interlocutors even the much-maligned proponents of intelligent design, theism is not for him. He confesses that part of his reason for rejecting teleology with theology his

21. Ibid., 67: “The idea of teleological explanation... in turn poses the question whether an explanation that appeals to value can be understood apart from the purposes of some being who aims at it...”.
“ungrounded intellectual preference.” Namely, he doesn’t wish to consider the possibility of a supernatural teleology. As he has famously said in *The Last Word*, “I don’t want there to be a God; I don’t want the universe to be like that.”

His more objective worry is that theistic explanations violate the intelligibility of the natural order “from the inside.” The criterion by which Nagel judges the hypothesis of divine “intervention” is that a proper explanation should show how the natural order itself holds together. So he would reject a transcendent intervention that interrupts (and renders unintelligible) certain features of the cosmos. I shall comment on this below.

**“Darwinism Plus”; Natural Teleology Revisited**

The upshot of Nonreductionism and Nontheism arguments is natural teleology. He says: “If we take our impressions of objective value to be substantially correct, rather than completely illusory, then we must regard the appearance and evolution of life as something more than a history of the development of self-reproducing organisms, as it is in the Darwinian version.”

Rational creatures like us exist. We judge true and false; we pursue good and avoid the bad. It makes an abduction to explain the presence of mind in the cosmos. The reductive story makes the appearance of mind either impossible or else so unlikely that it is virtually impossible. The nonreductive, teleological story makes the appearance of mind intelligible. He says: “From a realist perspective, [objective reason etc.] cannot be merely an accidental side effect of natural selection, and a teleological explanation satisfies this condition.”

What more can we say about this admittedly “quite mysterious” hypothesis? Two details: First, teleological laws are different from other natural laws in that they connect with living matter rather than dead matter. The existence of value seems to be coextensive with the existence of living things. Not only living humans, but all living things, since from our vantage point we can recognize the values of lower creatures who cannot even recognize their own. The tight connection Nagel sees between value and life (and between life and proper function) accords well with the neo-

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24. Nagel, *The Last Word*, 130; John McDowell and others speak of supernaturalism not as a live option but a “threat.” (John McDowell, *Mind and World* (Harvard University Press, 1996)) Of course, if a view makes me nervous that doesn’t imply that the view is false any more than it implies that it is “too good to be true.” Strictly speaking, one’s preferences are irrelevant.
26. Ibid., 122.
29. Ibid., 112.
30. Ibid., 117.
31. Ibid., 118.
Aristotelians such as Anscombe, Foot, Nussbaum, and Hursthouse (though he does not cite them).  

Secondly, teleological natural laws (like efficient/material ones) are impersonal and apply from the beginning of the cosmos, but (unlike them) range over different times. Instead of applying to physical phenomena at a given moment, “[S]ome laws of nature would apply directly to the relation between the present and the future…” This kind of governance is liable to sound exotic to a Darwinist, but it does not contradict Darwinism. Teleological explanation, if it exists, works – not instead of – efficient and material explanations. Nagel wants Darwinism plus. This Darwinism is the “hypothesis of natural teleology” wherein:

The natural world would have a propensity to give rise to beings of the kind that have a good—beings for which things can be good or bad... They have appeared through the historical process of evolution, but part of the explanation for the existence of that process and of the possibilities on which natural selection operates would be that they bring value into the world, in a great variety of forms.

In his most suggestively Hegelian sentence, he says, “The process seems to be one of the universe gradually waking up.”

Nagel admits that his hypothesis is not likely to find favor with moral antirealists or hardheaded atheists, but it promises to make sense of objective value. He summarizes his conclusion with an astonishing quadruple negative, saying: ‘I am not confident that this Aristotelian idea of teleology without intention makes sense, but I do not at the moment see why it doesn’t.’

Alternatives

Contemporary theories employ teleological talk in biology, medicine, even cosmology. We even observe teleological or ‘teleonomic’ behavior in natural organisms and organs. For these reasons, some have have defended
Nevertheless, natural teleology appears to be the minority view. What are its rivals? We can either reduce, eliminate, or accept teleological facts.

1. Eliminative Materialism
2. Dualism
3. Hylomorphism
4. Teleoreductionism

Natural teleology is consistent with all of these except eliminative materialism, which we have already critiqued. It may be considered as a species of non-reductive or “relaxed” naturalism.

III. Two Objections

Although Nagel admits his secular teleology is not fully sketched out, he finds friends in Plato and Aristotle. This is puzzling. Elsewhere, Nagel admits that Plato is “religious” in the sense that he gives a religious answer to the cosmic question. We should note that he repeatedly alludes to a naturalized Aristotelian or “Platonist alternative” rather than Plato or Aristotle themselves. And for good reason – a glance at the historical Plato and Aristotle demonstrates that they were not atheists of the desired sort.

Plato and Aristotle are not atheists

A few appeals to authority will have to suffice to prove the point. Take Plato. It is most likely that Plato was some type of theist. I content myself to cite authorities like Julia Annas and A. E. Taylor. Though he was


a critic of Hesiod and Homer, such scholars think that Plato’s vision of
divinity was an essential part of his philosophy. They take the following
statement from the *Laws* as something like Plato’s genuine view:

>You yourself and your friends are not the first nor the only persons
to embrace [atheism] as your doctrine about the gods; nay, in every
age there are sufferers from the malady, more or fewer... no one who
in early life adopted this doctrine of the non-existence of gods has
ever persisted to old age constant to that conviction.

What about Aristotle? It is perhaps even more clear that Aristotle is some
type of theist. Clearly, Aristotle’s architectonic metaphysics are a whole
package; we should be weary of picking and choosing. His metaphysics,
philosophical anthropology, ethics, and epistemology are all defined with
reference to polarity between pure potential (prime matter) and pure ac-
tuality (God). The natural teleology he defends (or assumes) is based on
a view of most natural kinds exhibiting both form and *telos*. His epistemology pictures human intellect grasping intelligible form with divine intellect *causing* things to be intelligible. Jonathan Lear summarizes, “Active Mind makes all things: that is, it makes all things intelligible...” In Aristotle’s theology, God “always enjoys a single and simple pleasure” of peaceful contemplation. In his ethics, humanity can and should imitate God and become intellectual. Again, Jonathan Lear expresses the paradox that “man is most himself when he [unites himself to reality]. By the very same activity he also imitates God. For God is actively thinking/being the forms. Man is most truly divine, mental activity.

This is all very quick, I admit. The Form of the Good and Active Mind
may not engage in Special Divine Action, hear prayers, or beget a Son; but
they are unabashedly non-naturalistic. Though Nagel never pretends to
agree with Plato or Aristotle wholesale, their writings are hardly the kind
of theorizing to inspire an atheist.

**Teleology is compatible with (certain kinds of) theism**

A second response is that the disjunctive major premise of the second syl-
logism is an inclusive. Strictly speaking, one can be a Nagalian and and
atheist or a Nagalian and a theist of a certain sort.

The supernaturalism that Nagel worries about is one where god violates
the natural order. This is a serious charge against some conceptions of
divine action. Nagel needs to say more, however, to respond to Christian
philosophers (among others) who have shown how incarnation of the divine
word is not a violation of the natural order, but an expression and *fulfillment*
of the natural order. In other words, the divine word’s presence does not

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University Press, 1988), 137.
VII.14.
rend the order of nature, it renders the order of nature complete. It remains to Nagel to write a full treatment of his worry and to philosophers of religion to respond.

My only point here is to suggest that Nagel’s teleology is indeterminate with respect to theism. That should not scare away atheists but rather commend it to both theists and atheists. Historically, natural teleology (in Stoicism, for instance) does not necessarily correlate with personal, transcendent monotheism.

IV. Nagel Contra Mundum

Where do we go from here? Nagel’s dialectic leaves us with one of three paths forward, each with its own attendant difficulties. In short, our choices are to:

1. Accept reductive Darwinian naturalism and eliminate natural teleology along with irreducible notions of life, consciousness, objective value, and reason.
2. Accept teleology with theology, but give an account of theology in which the intelligibility of God explains and fulfills the intelligibility of the world.
3. Accept a secular, natural teleology – and flesh it out in more detail.

I cannot pursue my own preferred path (2) here. I will only mention that both (2) and (3) seem to me not only more tenable than reductive naturalism but also more scientific.

Nagel poses the “the cosmic question” in spite of severe opposition to even asking it. His critique of reductive Darwinian naturalism is accurate and timely, and his defense of objective value is sound. Though I have tried to problematize his strategy of appropriating Plato and Aristotle, I think his project is a promising one, partly because it is compatible, both with (certain kinds of) atheism and (certain kinds of) theism. A secular

49. Cf. Athanasius, On the Incarnation: “But if the Word of God is in the universe, which is a body, and has entered into it in its every part, what is there surprising or unloving in our saying that He has entered also into human nature?”; Cf. also C. S. Lewis, Miracles, ch. 14: “Supposing you had before you a manuscript of some great work, either a symphony or a novel. There then comes to you a person, saying, ‘Here is a new bit of the manuscript that I found; it is the central passage of that symphony, or the central chapter of that novel. The text is incomplete without it. I have got the missing passage which is really the center of the whole work.’ The only thing you could do would be to put this new piece of the manuscript in the central position, and then see how it reacted on the whole of the rest of the work.”

50. E.g., “The Stoic God is immanent throughout the whole of creation and directs its development down to the smallest detail. God is identical with one of the two ungenerated and indestructible first principles (archai) of the universe. One principle is matter which they regard as utterly unqualified and inert. It is that which is acted upon. God is identified with an eternal reason (logos, Diog. Laert. 44B) or intelligent designing fire (Aetius, 46A) which structures matter in accordance with Its plan.” (Baltzly, Dirk, “Stoicism”, The Stanford Encyclopedia of Philosophy).
natural teleology does not seem to me impossible. Even if his view is not very Platonic or Aristotelian, it may be right. If so, it is nothing more or less than Nagelian.

V. Bibliography


