

Survival is the Ultimate End¹

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Introduction

According to Aristotle and several neo-Aristotelians, every living thing has an ultimate end—or a good, a *telos*—that is normative for it to realize. Aristotle and different neo-Aristotelians may differ on the finer details of the ultimate end, but they are all agreed on one fundamental tenet about it: The ultimate end of a living thing consists in the instantiation of its *species* (which neo-Aristotelians also call a natural kind or life-form).² The ultimate end of, say, an oak tree, a rabbit and a human being, according to this species-based view of the ultimate end, depends on the nature of the species to which these living things belong. An oak tree's ultimate end includes developing deep and sturdy roots, a rabbit's ultimate end includes developing four

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² This view is expressed in Aristotle's Function Argument (Nichomachean Ethics, Book 1). For expressions in the neo-Aristotelian literature, see G.E.M. Anscombe, "Modern Moral Philosophy," *Philosophy*, Vol. 33, No. 124, 1958: pp. 1-19; Michael Thompson, Life and Action, Harvard University Press, 2008, Part One; Philippa Foot, Natural Goodness, Oxford University Press, 2001; Rosalind Hursthouse, On Virtue Ethics, Oxford University Press, 1999, Part Three; Gavin Lawrence, "Human Good and Human Function," The Blackwell Guide to Aristotle's Nichomachean Ethics, ed. Richard Kraut, Blackwell Publishing, 2006: pp. 37-75. It is also arguably the view of Ayn Rand: She held that the ultimate end of a living thing is to survive—in this respect the view I develop in this paper aligns with hers—but she, like Foot and Hursthouse, also seemed to understand survival as survival *as a member of one's kind* (a view from which I depart in this paper). See "The Objectivist Ethics," The Virtue of Selfishness, Signet, 1961, pp. 16-27.

legs and eating grass, and a human being's ultimate end—as Aristotelians and neo-Aristotelians argue—includes the development and exercise of rationality and other virtues.

In this paper, I develop an alternative view of the ultimate end of a living thing: The ultimate end of a living thing is to survive and only to survive; and to survive, not as a member of its species, but as a living thing (what this means will be explained in depth).

I develop my view in four Sections. In the first Section, “Criticism of the Species View,” I briefly identify what I think is most problematic about the aforementioned species-based view of the ultimate end of a living thing, so as to motivate and set the stage for the development of my positive view: The problem is that it holds that the ultimate end of a living thing has a *determinate form* in terms of activities and parts of the sort we ordinarily ascribe to living things, e.g., breathing, photosynthesizing, lungs, leaves. The ultimate end, I argue, has no determinate form of this sort.

In the second Section, “Other-regarding Behavior is Not Normative for a Living Thing,” I argue that other-regarding behavior is not normative for a living thing. By other-regarding behavior, I mean tokens of helping other living things and reproducing that are not tokens of promoting individual survival. I present why we take survival, understood colloquially in this Section, to be normative for living things and to be the most paradigmatic normative end for a living thing; and I argue that the position that other-regarding behavior is also normative expresses a methodology for investigating normativity in living things that is implausible, on grounds of being so contrary to how we think about the normativity of survival.

In the third Section, “Survival is the Ultimate End of a Living Thing,” I elucidate a new and what I take to be correcting understanding of the nature of survival, viz., that it refers to the process of self-sustenance that underlies any determinate form that a living thing might have at

any given time. Survival does not mean bare subsistence or sub-optimal living, as opposed to “flourishing,” but rather the process of self-sustenance that underlies all determinate forms of a living thing, including determinate forms that some would classify under “bare subsistence” or “sub-optimal living” as well as under “flourishing.”³

In the fourth Section, turning to discuss *human* living things, I programmatically elaborate on what implications my view that survival is the ultimate end of a human being (as of any living thing) has on inquiry into human well-being and into morality (for human beings): I develop the idea that these inquiries are aspects of inquiry into human survival.

Criticism of the Species View

Neo-Aristotelians have offered different accounts of the normative ends of a living thing. Foot holds that there are three normative ends for every living thing: development, self-maintenance, and reproduction.⁴ Hursthouse holds that there are four possible normative ends—survival, continuation of the species, pleasure and enjoyment and freedom from pain, and the good functioning of the social group—and that which of these ends are normative for a given living thing is determined by the complexity of the species to which that living thing belongs.⁵ I

³ The notion of the survival of a living thing when the living thing is considered as a member of a certain kind—e.g., the survival of *a rabbit* (or rabbit survival), the survival of *a human being* (or human survival)—I will argue refers to a determinate conception of survival for a group of similar living things, a conception that can serve as a rough, practical guide for benefactors to help those living things survive and/or, for those living things that have the power of choice and during the time periods in which they have this power, guiding those living things in their pursuit of survival.

⁴ Natural Goodness, Chapter 2.

⁵ On Virtue Ethics, 197-205.

will use the term *flourishing* to refer to a living thing's successful realization of its ultimate end, whatever the normative ends precisely are (with the assumption that the ends are roughly like the ones that are specified in the aforementioned, prevailing accounts of the normative ends of a living thing).

Let's assume that living things do have natural and normative ends (or at least one) and that truth about them can be found in prevailing views of what the ends are. I will later examine several of the ends that are proposed as normative, arguing that some are not normative and that others are, and that the ones that are, are actually aspects of the single ultimate end of survival. Before doing so, however, I want to challenge a view about the ultimate end of a living thing that is implicit in and fundamentally shapes the preceding views.

The view is that flourishing must take a certain determinate form, a form that is associated with the species to which the living thing belongs; a form in terms of having certain parts and engaging in certain activities (with detailed specifications of these parts and activities) and by implication not having other parts and not engaging in other activities. Whatever are the ends of a living thing and however they are more precisely understood by prevailing accounts of the ultimate end of a living thing, they all share the feature that flourishing is flourishing *as a member of one's species*. Flourishing for a rabbit, for example, involves developing four legs and eating grass; flourishing for an oak tree involves growing deep and sturdy roots. I will call these norms that specify what it is for a living thing to flourish as a member of its species—e.g., the rabbit has four legs, etc.—*species norms*.

I would like to present two major problems with the species-based view of flourishing. The first is that a living thing can flourish in ways that violate its species norms. The second, which will emerge upon due consideration of the first problem, is that appeal to species norms

does not *explain* the flourishing of a living thing: Actually, as I will argue, our constructions of species norms *presuppose* identifications of flourishing of a living thing. They do not offer any illumination into what counts as flourishing.

The first problem can be readily appreciated by considering indefinitely many and easily conceived examples in which a living thing, realistically or theoretically, might flourish in ways that violate its species norms.⁶ Mrs. Muff, a rabbit, might grow a fifth leg, or a pair of wings, or develop some novel form of nourishing herself, all of which changes would violate her species norms. Whether any of these changes are realistically possible is irrelevant here. The point is that these species norm-violating changes, supposing they were to happen to Mrs. Muff, would constitute promotions of Mrs. Muff's flourishing, or at least would, if suitably supplemented with further details, e.g., the wings enable Mrs. Muff to fly and find food more quickly. The flourishing of a rabbit, according to the species-based view, consists in having four legs, not five, in having no wings, in eating grass, and not in developing a novel form of nourishing herself.

One might reply that counterexamples to the species-based view, especially unrealistic ones, pose at best a minor problem for the account, since it remains true that most real life cases of flourishing of a living thing conform to species norms. One might furthermore reply that counterexamples can be nullified in various ways: If a living thing undergoes a flourishing-promoting change that violates its purported species norms, perhaps the species norms need to be revised (perhaps now we will say that flourishing for a rabbit involves nourishing itself in way X), or perhaps the living thing should be reclassified under a different and perhaps new species

⁶ This point has been alluded to by David Copp and David Sobel in "Morality and Virtue: An Assessment of Some Recent Work in Virtue Ethics," *Ethics*, April 2004, pp. 514-554; see p. 539.

(according to the norms of which flourishing for members of this species involves nourishing in way X).⁷

These replies, however, illustrate the second problem for the species-based account: They illustrate that our species norms are a *product of independent* observations of *flourishing* of living things.⁸ (So, *of course* most real life cases of flourishing of a living thing conform to species norms, since we construct species norms so that they fit these cases.) We note, say, that Mrs. Muff has developed wings, that the wings promote her flourishing, and that her wings violate her species norms. These observations lead us to wonder whether this flourishing-promoting change is happening to other rabbits and whether we should revise the species norms of rabbits or whether perhaps we should construct a new species. The *explanation* for what

⁷ One might also suggest that perhaps there is no species under which the living thing can be classified at this time (perhaps there is process of evolution that is going on in many members of a certain species, a process that will eventually yield a new species; we will wait and see), but this suggestion poses a problem for the species-based view: If Mrs. Muff has no species, then no species norms are applicable to her, which means that her flourishing cannot be explained by appeal to species norms.

⁸ An objection that might be raised and further developed against this claim is that (a) it is not possible to identify flourishing in a living thing independently of species norms because (b) it is not possible to describe an individual living thing without appealing to such norms. (b) has been elaborated by Michael Thompson in “The Representation of Life,” Virtues and Reasons: Philippa Foot and Moral Theory, eds. Rosalind Hursthouse, Gavin Lawrence, and Warren Quinn, Oxford University Press, 1995, pp. 247-296; a later version of this essay constitutes Part One of Thompson’s Life and Action. (b) has also been endorsed by Philippa Foot (Natural Goodness, pp. 28-29) and Gavin Lawrence (“Snakes in Paradise: Problems in the Ideal Life,” *The Southern Journal of Philosophy*, Vol. XLIII, 2005, pp. 126-165; see pp. 139-140). I do not have space here to develop or address this objection at length, but I can offer a simple response to it: The fact that we can straightforwardly grasp the counterexamples suggests that the objection fails.

makes Mrs. Muff's wings a flourishing-promoting change to her is not that they conform to species norms; and species norms do not contribute to our understanding of the flourishing of a living thing.

Counterexamples show that the flourishing of a living thing is not limited to any determinate form of the sort exemplified in species norms, e.g., having certain parts (legs) and not others (wings), engaging in certain activities (running) and not others (flying). They also show that there is no such theoretical state as the "highest good" (or highest point or level) that a living thing's flourishing can attain. It might be thought, mistakenly, that there is such a state. For example, some might claim that the "highest good" of an acorn is to become a "fully developed" oak tree. Such claims, however, are just claims about what is realistically possible for acorns. The notion of the highest good for a living thing—and related notions such as the notion of a living thing's living well, optimally, or excellently; of its having a high or the highest possible level of flourishing; of its life's going well or optimally—are evaluations of a living thing according to what is realistically possible for members of its species, i.e., to species norms. Setting aside what is realistic, the purportedly "fully developed" oak tree could theoretically always flourish more, e.g., the growth of new parts, including weird parts that violate the inherently species-based notion of the "highest good" of a living thing. Our "fully developed" Mrs. Muff, to consider a second example, might develop thousands of legs, wings and all sorts of novel forms of activity (and, notably, might several times throughout the course of her life be reclassified under different species or under no species at all).

The point that there is no theoretically optimal state for a living thing also supports the claim that it is never normative for a living thing to deteriorate or die.⁹ Though some may regard this claim as obvious, others might deny it, claiming that it is normative for a living thing to grow, reach its optimal state, and then begin deteriorating towards death. (One can imagine an advocate of the species-based view's claiming that if a rabbit has reached its optimal state and then does not begin deteriorating as it should, it is defective.) In criticism of the idea that deterioration and death are normative for a living thing, however, given that there is no theoretically optimal state, there is no theoretical basis for the claim that at a certain point it is normative for a living thing to deteriorate and die. If Mrs. Muff can find a way to keep growing and to live forever, then good for her (more precisely, normative for her).¹⁰ Furthermore, even *if* there were a theoretically optimal state—and in entertaining this supposition we are in *really* thin air because there is no sense to the notion of a theoretically optimal state for a living thing; not even a vague, intuitive sense—it would still be implausible to suppose that thereafter it is normative for a living thing to deteriorate towards death. The reason is that natural normativity,

⁹ Set aside here cases in which behavior other than deterioration and death that is regarded as normative might nevertheless entail deterioration and death, e.g., a living thing gets hurt or even dies in an act of reproduction or helping another living thing (an act that is presumed normative). In these cases, it's the behavior at issue that is regarded as normative, e.g., reproduction, not that the reproduction *per se* results in the deterioration or death of the living thing.

¹⁰ One might claim that Mrs. Muff should not grow too much because doing so might come at the expense of other rabbits or other living things, e.g., drain their resources, take up too much space in the universe. Let us set this claim aside; even supposing it is normative for Mrs. Muff to limit her growth for the sake of the growth of other rabbits or other living things, there would still be a question of what is normative for Mrs. Muff if there were no such conflict and it would seem that this is the more fundamental question of what the ultimate end of a living thing is.

i.e., having an ultimate end, pertains to being a *living* thing, i.e., *alive*. Claiming that it is normative for a living thing to move toward inanimacy, i.e., death, entails claiming, implausibly, that it is normative for a living thing to defy the very source of normativity.

I take myself to have shown that, whatever are the normative ends of a living thing, they need not take a determinate form of the sort inherent in species norms; and that neither deterioration nor death are ever normative for a living thing. Now, what are the normative ends of a living thing? I will argue in the next Section that other-regarding behavior is not normative for a living thing; rather, only survival is. In the subsequent Section, I will elucidate the nature of survival.

Other-regarding Behavior is Not Normative for a Living Thing

I will call the view that at least one end other than survival is normative for living things—such as helping other living things, reproducing, or relating in a certain way(s) to inanimate phenomena—OtherRegarding.¹¹ I will argue against OtherRegarding in three steps. First, I present a dialectic between the neo-Aristotelian and the ecologist—the two mainstream candidates that uphold OtherRegarding—as a way of showing problems for both views, problems which I hope convince the reader that OtherRegarding should be seriously questioned.

Second, I argue that even if we set aside the problems that face the neo-Aristotelian and the ecologist—by the lights of the methodology with which the neo-Aristotelian and ecologist

¹¹ More precisely, I refer here to instances of helping, reproduction and relating that are not instances of promoting the individual survival of the living thing. If Mrs. Muff's benefiting the bacteria in her gut is understood as promoting her own survival (the bacteria aids her digestion), then her benefiting the bacteria would not count as an instance of helping other living things.

generally operate, a methodology which upholds making normative inferences from observable patterns among living things and the inanimate environment—the view that the ultimate end is only to survive is at least as plausible, if not much more plausible, than either of these competing views.

Third, I argue that facts outside a living thing are irrelevant to its ultimate end. Attraction to OtherRegarding, whether a given advocate of the view leans neo-Aristotelian or ecologist, stems from (plausibly) inferring normativity from robust and old (billions of years old) patterns of living things' helping other living things and reproducing, and being functionally equipped, i.e., well-suited, to do so. However and as I will argue, facts outside a living thing, and thus any patterns that might exist among such facts, are irrelevant to what the ultimate end of a living thing is.

1. Problems for the neo-Aristotelian and the ecologist

The usual neo-Aristotelian will claim that it is normative for living things to reproduce members of their species and to help other members of their species in characteristic ways, e.g., it is normative for Mrs. Muff to have between such-and-such number of children and such-and-such number of children, and for her to care for them in such-and-such ways and for such-and-such period of time.

Now, however, the ecologist enters and claims that the ultimate end of a living thing includes other-regarding behavior with respect to phenomena other than members of its species.¹² Many ecologists would point out all the symbiotic patterns among living things of

¹² There is a view here that has some currency and is different from the neo-Aristotelian and the Ecologist. I mentioned it as an aside: Many biologists will be less concerned living things' helping of other members of their

different species and claim that it is part of the ultimate end of a living thing to help members of other species as well. They would also claim that patterns within and across species are parts of larger ecosystems, which constitute webs of interrelationships among living things, and that the ultimate end of a living thing includes playing a certain role in its ecosystem, e.g., the tropical rain forest or the desert in which it resides. Some ecologists would even claim that the inanimate matter of these ecosystems—e.g., soil, sand, dirt, water, rocks, mountains—have intrinsic value, and that the ultimate end of a living thing includes serving not only patterns among the other living things in its ecosystem, but also patterns among the inanimate phenomena of the ecosystem. Some ecologists would even claim that Mother Earth herself is one giant ecosystem that comprises all other ecosystems and that part of a living thing's ultimate end is to play its role in serving Mother Earth.

Which of the two views—the neo-Aristotelian's or the ecologist's—if either, is true and how do we know this?

The neo-Aristotelian might defend her view against the ecologist in four ways. First, she might argue that *species* is normatively special. What a living thing *is*—in a metaphysical or quasi-metaphysical sense of *is*—is a bearer of a species, which contains norms for the living thing, norms the conformity to which manifests *intrinsic* goodness in the living thing.¹³ This is why norms for other-regarding behavior within species—e.g., Mrs. Muff has children, Mrs. Muff tends to her children—are justified and any other proffered norms—e.g., ones that pertain to symbiotic relationships, ecosystems, or Mother Earth—are not.

species and more with reproduction, and tend to view reproduction as primarily for the sake of passing on their genes (as opposed to the neo-Aristotelian, who regards reproduction as part of species norms).

¹³ Michael Thompson develops this argument in Life and Action, Part One.

Second, she might argue that the notion of intrinsic value to which the ecologist appeals is questionable. The ecologist claims that living things, species, ecosystems and possibly inanimate phenomena are intrinsically valuable and on the basis of this claim holds that it is part of a living thing's ultimate end to serve these things in various ways. However, the neo-Aristotelian might question whether the notion of intrinsic value has any sense. She might argue that only the notion of being good or valuable *for* a living thing has sense; the notion of being valuable in itself does not.¹⁴

Additional support for skepticism about intrinsic values, the neo-Aristotelian might claim, stems from the fact that it is a matter of arbitrary speculation how one would know what phenomena have intrinsic value and what role a given living thing has in service to these intrinsic values. How do you even precisely isolate and define the things that according to you may have intrinsic value (such as symbiotic relationships, ecosystems and inanimate phenomena)? How do you know what things have intrinsic value? How do you know what role a particular living thing has in regard to these purportedly intrinsic values? What justifies an ecological perspective on a living thing? These questions seem insurmountable and they throw doubt on the very existence of intrinsic values.

Third, the neo-Aristotelian might argue that, even supposing there are intrinsic values, they are beside the point of an investigation into natural normativity, i.e., the ultimate end of a living thing. The neo-Aristotelian might claim that she is not claiming that species have intrinsic value. Rather, she is claiming that a living thing is a bearer of a species, and in virtue of this, its ultimate end is to instantiate its species. Its instantiating its species does not have intrinsic value;

¹⁴ See, for example, Richard Kraut's What is Good and Why, Harvard University Press, 2007; and Against Absolute Goodness, Oxford University Press, 2011.

it simply is the ultimate end of the living thing. The notion of intrinsic value then is beside the point of an investigation into the ultimate end of a living thing. It is normative for Mrs. Muff to tend to her children, not because her children have intrinsic value, but because “rabbits tend to their children in such-and-such ways” is a norm for rabbits.

Fourth, the neo-Aristotelian might claim that the ecologist’s view is biased: It is motivated by a moral vision for human beings to which the view lends support (whether in the form of actual grounding or as a source of rhetorically powerful analogies). One who has a moral vision of human beings’ serving Mother Earth in various ways will be attracted to a view of the ultimate end of a living thing according to which its ultimate end includes serving Mother Earth.

Let us consider how the ecologist might reply to the neo-Aristotelian’s four arguments. Regarding the neo-Aristotelian’s case for the normatively special status of species, the ecologist might criticize it in two ways.¹⁵ First, neo-Aristotelians tend to avoid or skirt the issue of the metaphysical status of species¹⁶, which is an issue they should not avoid or skirt if they are seriously claiming that living things are—in some special sense of *are*—bearers of their species.¹⁷ Second, the argument that neo-Aristotelians offer to defend the normativity of species norms is also available to the ecologist: Neo-Aristotelians argue that we have certain thoughts, e.g., “The rabbit has four legs,” that are not empirical claims, which suggests that they are

¹⁵ The following criticism is not one that appeals to any view that is distinctive to the ecologist. I am simply framing the criticism as one that the ecologist might raise against the neo-Aristotelian in their debate about the ultimate end of a living thing.

¹⁶ Thompson, for example, raises and explicitly dismisses the issue of what exactly are the purported life-forms that he claims to exist (Life and Action, p. 62).

¹⁷ Lawrence articulates this objection (“Human Good and Human Function, p. 58), though he is not sympathetic to it.

normative claims.¹⁸ The ecologist can likewise argue that the thoughts “The rabbit aids the bacteria in her gut” likewise are not empirical, which suggests that they are normative. Mrs. Muff can be thought of as a bearer of an ecosystem just as plausibly as she can be thought of as a bearer of a species.

In regard to the charge that it seems to be a matter of arbitrary speculation what has intrinsic value and what role a given living thing has in serve to intrinsic values, the ecologist might offer two replies. First, she might appeal to thought experiments, e.g., would not the universe seem less valuable if all the beautiful mountains on Earth disappeared? Does it just not seem that it is normative for Mrs. Muff to aid the bacteria in her gut and to contribute to the maintenance of the forest in which she resides? Second, she might claim that a similar charge can be pressed against the neo-Aristotelian: How do you know what same-species other-regarding behavior a living thing should enact? How do you know how many children a rabbit should have and how many years a rabbit should tend to her children and in what precise ways she should do so? These questions press you, the neo-Aristotelian, just as similar ones press me (the ecologist), e.g., how do I know what symbiotic relationships Mrs. Muff should engage in and what role she has to play in her ecosystem?

In reply to the second reply, the neo-Aristotelian might argue that species-same empirical patterns are generally much more robust than ecosystem-based empirical patterns. The latter seem more subjective and arbitrary. The ecologist might reply to this that even if this is true, there are still pretty robust patterns (and even more robust patterns for symbiotic relationships, e.g., Mrs. Muff aids the bacteria in her gut).

¹⁸ This is the essence of the argument that Thompson makes for the normativity of species norms (Life and Action, Chapter 4); Foot endorses the argument in Natural Goodness, pp. 28-29.

More importantly, the ecologist might reply that the neo-Aristotelian, by the lights of her own views, is not allowed to appeal to empirical reality. Species norms, according to neo-Aristotelians, are *a priori*; they do not depend on empirical facts.¹⁹

The neo-Aristotelian might reply that although species norms are *a priori*, they can and do arise *with* experience even if not *from* experience.²⁰

The ecologist might reply that this distinction is highly suspicious and seems like a jerry-rigged attempt to make species norms *a priori* while at the same time have it be that the particular norms that we purportedly intuit by *a priori* means just happen to coincide with the norms that we would have constructed and seem to construct through empirical observation.

Now, regarding the neo-Aristotelian's charge that even supposing there are intrinsic values, they are beside the point to natural normativity, here the ecologist and the neo-Aristotelian might be at a stalemate as regards fundamental commitments. The ecologist will claim that if, say, an ecosystem has intrinsic value, this has or at least may have implications on what it is normative for a given living thing to do; the neo-Aristotelian will disagree and also might raise again the issue of how the ecologist knows what these purported implications are (taking us back to the dialectic between the neo-Aristotelian and the ecologist about how to know what are the norms for a living thing).

In reply to the charge of moral bias, the ecologist might reply that the neo-Aristotelian also has this bias. One who has a moral vision of human beings' living the sort of life advocated by neo-Aristotelian virtue ethics—something like the pursuit of one's happiness, where one's

¹⁹ Life and Action, Chapter 4.

²⁰ Michael Thompson, "Apprehending Human Form," Modern Moral Philosophy, ed. Anthony O'Hear, Cambridge University Press, 2004, pp. 47-74.

happiness includes caring for close ones and the development and exercise of traits that are generally accepted as virtues—will be attracted to a view of the ultimate end of a living thing according to which its ultimate end includes tending to others of the same species and the development of features that are plausibly analogized to virtues in human beings (as Peter Geach claimed, “Men need virtues as bees need stings”²¹).

In reply to the ecologist, the neo-Aristotelian, assuming that she agrees that she has a moral bias, might argue that there is room for arguing that a moral bias in investigating natural normativity is justified. (The ecologist might also argue for the same.) It is not clear if we can approach an investigation of natural normativity without prior acceptance of and being influenced by some value system; so perhaps we just need to accept this, recognize that bias may there and continue moral debating in tandem with investigation of natural normativity.

The above questions and criticisms that the neo-Aristotelian and the ecologist can present against each other show at the very least that OtherRegarding is not an apodictic truth: It should be seriously questioned.

2. Survivalist view is at least as, if not more, plausible

Both the neo-Aristotelian and ecologist agree that (a) patterns among living things are normatively significant and (b) patterns can change, e.g., mutation, adaptation, evolution, changes in the role that living things are purported to play in ecosystems. On behalf of both the neo-Aristotelian and the ecologist, let us set aside any skepticism about intrinsic value, about life forms, about the normative significance of patterns, about the ability non-arbitrarily to identify them and let us set aside any concern about illicit influence of moral vision on inquiry into

²¹ Peter Geach, The Virtues, Cambridge University Press, 1977, p. 17.

natural normativity. Let us suppose that patterns are normatively significant and that we have a good enough handle on how to identify them. On this supposition, an appeal to patterns should be taken to support my view that the ultimate end is solely to survive at least as much as, if not *much more*, than it does any other-regarding view (such as the neo-Aristotelian's or ecologist's).

Let us begin with the weaker thesis that patterns support my view *at least as much* as any other view. Survival-promoting behavior can always be claimed, by the lights of my opponents' methodology of taking patterns to be normatively significant and changeable, as the beginning of a change in normative patterns, with at least equal plausibility to the claim that any other behavior marks the beginning of a change in normative patterns. Consider two living things, LT 1 and LT 2. If LT 1 promotes its survival in some way rather than helps LT 2 or reproduces Junior LT, this is at least a plausible change in normative pattern as any other change, e.g., LT 1 helps LT 2 rather than promotes its own survival. Survival then should always be regarded as excellent (or non-defective).

Now let us consider my stronger thesis that patterns support the Survivalist view *much more* than any other view. Between the neo-Aristotelian and the ecologist, most people find the former view more plausible. Why? I suggest that they do so because the neo-Aristotelian view leans in the direction of regarding survival as the ultimate end of a living thing. Reproduction and helping other members of one's species are plausibly taken to be normatively significant because robust patterns of these activities occur in and against *the backdrop of the normal and full lifecycle of a living thing's survival*. Survival, for neo-Aristotelians, is the *paradigmatic* end for a living thing, viz., the unquestionable, foundational and focal end for a living thing, and thereby should be the presumptive model for a normative end for a living thing, a model that we have in mind when we entertain any other proffered ends for a living thing.

I want to offer a point in support of the neo-Aristotelian view that survival is the paradigmatic end for a living thing. It is the paradigmatic end for a living thing because a living thing has it in virtue of being a living thing and regardless of what the outside world is like, e.g., what patterns might exist in it, whether any other living things exist or have ever existed, whether any inanimate objects exist or have ever existed, and whether the living thing is even functionally equipped (or well suited) to flourish. By contrast, any other proposed end depends on facts outside the living thing, such as that there are other living things or an ecosystem to serve, that there is some living thing with which to reproduce, that the environment is conducive to a living thing's reproductive organs' playing a role in reproduction. That a living thing has the end of survival in virtue of being a living thing and regardless of what the outside world is like—whereas this is not true with any other end—is a strong indicator, as I will argue in more detail later, that survival is the sole end. For now, the point I want to make here is that this fact makes survival the paradigmatic end.

That survival is the paradigmatic end is all the more plausible in light of the fact, as I presented in the prior Section, that there is no upper limit to the determinate form that a living thing's survival can have. One's intuitions about normative patterns can and should take into account theoretically far more—*infinitely* more—potential in the determinate form of the survival of a living thing, LT; its survival is not bound by determinate norms of the sort inherent in species norms.

As views of the ultimate end of a living thing move away from survival, empirical patterns that might lend support to them become vaguer and looser; and the entrance of more subjective, arbitrary intuitions becomes more frequent. For example, is it part of Mrs. Muff's ultimate end to enable, say by excreting her wastes, the growth of grass in the forest in which she

lives? We are getting much looser, more arbitrary, and subjective; *because* we are distancing ourselves from survival.

So, supposing that patterns are normatively significant, survival should always be regarded as excellent. Even if it is not the sole normative end, exclusive pursuit of it should always be regarded as excellent. Furthermore, there is ground for regarding it as the sole normative end: It is the paradigmatic end appeal to which lends plausibility to the most plausible other-regarding views. The more proffered other-regarding norms deviate from survival, the more implausible they are.

3. Facts outside a living thing are irrelevant to its ultimate end

To date, all investigation of the ultimate end of a living thing has assumed that patterns among interactions between living things (and, according to ecologists, also patterns among interactions between living things and inanimate phenomena) are normatively significant (an assumption which I entertained on behalf of my opponent in my second step above). The ancients regarded the kind to which a living thing belongs as normatively significant; and it is only in virtue of the existence of multitude other living things, similar to and different from one another in various ways, that kind concepts could be constructed. Contemporary neo-Aristotelians take as normatively significant billions of years of living things' surviving, helping others of their species and reproducing. The ecologist does as well and would add on patterns of living things' helping others of different species and of serving inanimate phenomena in various ways, claiming them to be normatively significant.

I will argue here, however, in three steps for the view that *facts outside a living thing (and thus any patterns among such facts and that living thing, no matter how robust or large-scale any pattern is) are irrelevant to its ultimate end*. First, I will elaborate on how survival, the

paradigmatic end for a living thing, is normative for a living thing regardless of facts outside the living thing. This step establishes a presumption in favor of the view, for which I will build increasing intuitive support throughout the remaining two steps. In the second and third steps, I will appeal to the view to argue in turn that none of (1) serving one or more inanimate phenomena in the universe, or (2) helping another living thing(s) or reproducing, are normative for a living thing.

3.1. Facts outside a living thing are irrelevant to the normativity of survival

Suppose that no life currently exists or has ever existed in the universe. Suppose also that no inanimate phenomena exist in the universe except a vast expanse of pure space. Now, in this vast expanse of pure space, a non-sentient living thing, LT, comes into existence.

By the fact that we now have a living thing, we neo-Aristotelians believe that LT has an ultimate end. By contrast, we did not think that the space that constituted the universe had any end. Nor would we think that any other inanimate phenomena, supposing they existed, e.g., asteroids, stars, planets, has any ultimate end. Now, what is LT's ultimate end?

To answer this question, the usual neo-Aristotelian would want to ask, "To what species does LT belong?" LT, however, has no species: There are no other living things; *a fortiori* there are no living things that are similar enough to LT²² as to warrant the construction of a species concept under which to classify LT; nor are there even minds around to be able to construct any such concepts. So, we know that whatever LT's ultimate end is, it is not determined by a (LT's purported) species.

²² Nor are there living things that are different enough from these living things, in virtue of which difference we could claim that the similar living things are similar.

LT's end, it is plausible to suppose, is survival. After all, we think that LT has an ultimate end *because LT is a living thing*. And if LT dies, then we no longer have anything in this universe that has an ultimate end. LT's end then must have something to do with being a living thing. Survival is an unquestionable end for LT.

That LT's end is to survive, furthermore, is determined wholly by facts about LT. Facts outside of LT are irrelevant to the fact that survival is LT's end²³; and we can very sharply appreciate this since the only other fact is the vast expanse of space in this universe. Even supposing this universe was populated by a bunch of inanimate phenomena of the sort we are familiar (e.g., galaxies, stars, asteroids, and planets), whether LT emerged in this or that galaxy; in space, in the middle of a star, on an asteroid, or on a planet; wherever on a certain planet, supposing LT emerged on this planet, LT emerged, and whatever the environment around LT is

²³ One might offer the following objection to my claim that facts outside LT are irrelevant to the normativity of survival for LT. Michael Thompson argues (*Life and Action*, Chapter 1) that what makes an object a living thing is not wholly facts about the object, but rather in part an *a priori* concept, viz., *living thing*, that we project onto the object. Thompson might argue that supposing on my behalf that something has the end of survival if, only if, and because it is a living thing, then whether something has the end of survival depends on facts outside it, since whether the something in question is a living thing depends on facts outside it (viz., the *a priori* concept *living thing*). In reply to this argument, even supposing that Thompson is correct, the sense in which Thompson would claim that facts outside LT are relevant to the normativity of survival for LT is different than the sense in which I am claiming that facts outside LT are irrelevant to the normativity of survival for LT. By facts outside a living thing, I mean anything we encounter in our ordinary experience that is outside it, e.g., the chair next to it, the air around it, the sky above it, the ground underneath it, etc. By contrast, in his claim that what makes an object a living thing is in part a fact outside it, Thompson is not referring to phenomena we encounter in ordinary experience that are outside the living thing, but rather something that structures our ordinary experience (the purported *a priori* concept *living thing*).

like, that LT's end is to survive is unaffected by any of the preceding considerations. If LT moves or gets moved from one planet in one galaxy to another planet in a different galaxy, LT's end would not change.

What facts outside LT *are* relevant to, is what LT's survival *can possibly look like or will look like (whether likely or certainly)*—i.e., the *determinate form of survival* that is possible, likely, or certain for LT. Such facts are relevant to how long LT can survive, e.g., whether LT is doomed to die within seconds²⁴ or whether LT can live for one thousand years, and to what LT can look like, e.g., various factors such as gravity, weather, and available nutrients may affect how large LT can or will become, what parts LT can or will develop (and the details of what these parts look like).²⁵

So, we have the paradigm end for LT, viz., to survive, and we know that facts outside LT are irrelevant to survival's being its end. Now let us consider whether it might be an additional end for LT to relate to the inanimate phenomena of the universe in some way.

3.2. It is not normative for a living thing to relate to inanimate phenomena

All there is outside of LT is space. Is it normative for LT to relate to the space in some way? Implausible, so no. Let us suppose we populate the universe with some inanimate phenomena. Suppose a speck of dust materializes hundreds of lightyears away from LT. Is it normative for LT to relate to this speck of dust in some way? Still implausible; and still

²⁴ We can see that whether LT is functionally equipped (or well suited) to survive is irrelevant to the normativity of survival.

²⁵ One might claim that the role a part, e.g., heart, lungs, plays in LT's survival depends on facts outside LT. *Yes*, which is why, as I will elaborate on in the next Section, it is wrong to understand survival in terms of the sustenance of *particular parts*.

implausible if we changed the speck of dust to an asteroid, or a planet, or a star; and still implausible if the speck of dust or asteroid, etc., emerged a few inches next to LT.

Let's richly populate our universe with inanimate phenomena such as the aforementioned. And let's suppose now that LT starts interacting with some inanimate phenomena and that its interactions have robust patterns: Suppose for example LT is collecting asteroids and building pyramids out of them. Now here we can ask one or both of two questions: (1) *Was it* normative for LT to build the asteroid pyramids that it built? (2) Is it normative *in the future* for LT to build asteroid pyramids?

I could see why one might entertain the answer of "Yes" to both questions. Perhaps it is plausible to think or at least entertain the thoughts that asteroid pyramids exhibit an order such that they can be plausibly called an end; and thus that LT's building of them seems like an end-driven activity; and thus perhaps it was normative for LT to build the asteroid pyramids that it has built and perhaps it is normative for LT to keep building asteroid pyramids in the future, given that that's what it's done in the past. An answer of "Yes" to (1) and (2) is even more plausible, one might claim, if LT were *functionally equipped* (or well suited) to build asteroid pyramids, i.e., if LT has one or more parts that are well suited to the building of asteroid pyramids, this would fact would lend further support to "Yes."

Let's even consider a wilder thought experiment, one that I think would constitute the strongest possible case for holding that it is normative for LT to relate to inanimate order in some way. Suppose the universe, prior to LT's existence, for zillions of years consisted in one giant, naturally occurring inanimate Rube Goldberg-like structure (henceforth, The Structure) that consists in zillions of complex inanimate parts that interrelate in zillions of complex, refined ways; and suppose that for zillions of years, inanimate parts have popped into existence, served

The Structure in complex ways, and popped out of existence. Now suppose that the first animate object, i.e., living thing—LT—emerges, and is well suited to serve and immediately serves a role in The Structure that one of the inanimate parts that just popped out of existence had been well suited to serve and served for zillions of years. It is plausible, one might claim, to suppose that LT's end is to serve the The Structure.

Though I can see why some might claim that it is normative for LT in the above case to serve The Structure and in the preceding case to build asteroid pyramids, I want to present two problems for the view that it is normative for LT to relate to inanimate phenomena.

First, the advocate of the view fails to treat a living thing as a living thing, viz., as a bearer of a special kind of normativity. She views LT as if LT were just an inanimate part of The Structure; she would recognize that LT is a living thing but this fact would have no bearing on what she takes to be normative for LT. Yet LT's being a living thing grounds a special normativity for LT. By contrast, any normativity that might be claimed to apply to the inanimate parts and to The Structure is of a different kind. Even supposing that in some sense one can attribute a function, or an end, or normativity to The Structure and its inanimate parts, it is not a normativity that is grounded in the phenomenon of *life*. The fact that LT has an ultimate end, whereas the inanimate parts of The Structure do not (or at least not in the same sense), must have something to do with its *being a living thing*. The fact that LT is well suited to serve and is serving The Structure has nothing to do with its being a living thing.

Second, the contingency of inanimate phenomena and any order among them makes the view that that any inanimate order is normative for a living thing, implausible. The fact that such order is contingent strikes me as straightforwardly making implausible the claim that the ultimate end of a living thing is dependent on such order. There might not have been any asteroids or The

Structure. The universe might have been just a vast expanse of space, in which case very plausibly LT's ultimate end is solely to survive. The view that if asteroids or The Structure materialize, then it is normative for LT to relate to one or more of these in certain ways, and if they do not materialize, then it is not, strikes me as implausible. The normativity of survival does not depend on contingencies of the outside world and survival's being the paradigmatic end for a living thing justifies a presumption in favor of the view that what is normative for a living thing does not depend on such contingencies.

Furthermore, supposing LT's ultimate end does depend on contingencies about what inanimate phenomena exist, it is not at all clear how LT is supposed to relate to these inanimate phenomena; which casts suspicion on the supposition. Earlier and on behalf of my opponent, I chose a thought experiment in which only one phenomenon of order exists in the universe, viz., The Structure, and in which LT is suited only to serve that order. There may, however, be no single inanimate order with which LT can be associated. In another universe (such as our universe), there are different orderly phenomena and LT might be serving and well suited to serve different phenomena, e.g., LT might have built some asteroid pyramids, might have arranged specks of space dust into spheres, might have assisted in the formation of planets. Questions naturally come to mind: Was it normative for LT to perform all these actions exactly as it did? Was it instead normative for LT to build one more asteroid pyramid and one less space-dust-sphere? Is it normative in the future for LT to build more asteroid pyramids and more space-dust-spheres? If so, how many of each and why that answer? These questions do not present "merely" a technical problem of how to determine what order is normative, but rather suggest that the proposal that order is normative to begin with is implausible: A proposal about an end

for a living thing that leaves the content of the end so indeterminate, elastic and subject to what seems like arbitrary speculation is implausible.

An aspect of the contingency of inanimate order that renders particularly questionable the view that it is normative for LT to relate to it is that at least much of inanimate order seems to be mind-dependent. It does not seem that there is an order inherent in inanimate matter that is independent of any mind; it does not seem, for example, that The Structure is mind-independently more orderly than the set of its zillions of parts, disparately spread across the universe and floating randomly about; or that LT's movements in service to The Structure are mind-independently more orderly than LT's, say, darting around the universe in what comes across to us as a schizophrenic manner, or floating randomly about; or that LT's completing an asteroid pyramid is more mind-independently orderly than LT's completing three quarters of it and then floating away or knocking the asteroids into disparate places in the universe. Inanimate order's being mind-dependent puts further into doubt the suggestion that it is normative for LT to relate to it: It is implausible to claim that the ultimate end of a living thing is determined in part by what order our minds happen to grasp in inanimate matter, an order furthermore that often seems vague, arbitrary, disputable and to be a result of anthropomorphic sentiments; and to imply that whether it is normative for LT to relate to inanimate phenomena depends on whether we (and our minds) happen to exist.

The view that it is normative for LT to relate to inanimate phenomena, then, is unjustified. Attraction to the view stems from inferring normativity from thought experiments about inanimate order and living things' being well suited to relate to inanimate order in orderly ways, and so relating. This view, however, (1) fails to treat living things as living things, as

bearers of a special natural normativity, (2) upholds an implausibly contingent, indeterminate, and elastic end for a living thing.

The inanimate phenomena in the universe have no bearing on what LT's ultimate end is. And I hope through the preceding discussion that I have garnered increased confidence in my proposal that *facts outside LT are irrelevant to its ultimate end*.

3.3. It is not normative for a living thing to help other living things or to reproduce

Here I want to present two problems for the view that it is normative for a living thing to help other living things and reproduce (call this view *OtherLifeRegarding*) that are similar to the problems I presented for the view that it is normative for LT to relate to inanimate phenomena.²⁶ The first is that *OtherLifeRegarding* fails to treat a living thing as a living thing, viz., as a bearer of a special kind of normativity. The second is that the *contingency* of patterns of other-regarding behavior—of helping other living things and reproducing—renders implausible their purported normativity.

First problem: *OtherLifeRegarding* fails to treat a living thing as a bearer of a special kind of normativity

Considering the first problem first, just as LT's being functionally equipped to build asteroid pyramids or serve The Structure (henceforth I will call whatever patterns of relating to

²⁶ The reason that I am criticizing *OtherLifeRegarding* separately from my preceding criticism of the view that it is normative for LT to relate to inanimate phenomena is that, to many people, it may intuitively seem more plausible to claim that it is normative for LT to help other living things and to reproduce than it does to claim that it is normative for LT to build asteroid pyramids or serve The Structure. In my ensuing criticism of *OtherLifeRegarding*, I will elucidate the two above problems in a way that I hope will nullify what people find especially intuitively appealing about *OtherLifeRegarding*.

inanimate phenomena that might be proffered as normative for a living thing to participate in, the Inanimate Order), does not make it normative for LT to do so, so LT's being functionally equipped to serve whatever patterns of helping and reproduction that a given advocate of OtherLifeRegarding takes to be normatively significant²⁷ (henceforth, I will call these patterns the Animate Order) does not make it normative for LT to do so. The advocate views LT as if LT were just an inanimate part of Animate Order; she would recognize that LT is a living thing but this fact would have no bearing on what she takes to be normative for LT. To appreciate this, suppose there were inanimate parts that served the Animate Order exactly as LT is serving it. Would it be normative for these inanimate parts to serve the Animate Order? Even supposing that in some sense one can attribute a function, or an end, or normativity to such inanimate parts, it is not a normativity that is grounded in the phenomenon of *life*. The fact that LT has an ultimate end, whereas the inanimate parts that serve the Animate Order do not (or at least not in the same sense), must have something to do with its *being a living thing*. The fact that LT is well suited to serve and is serving the Animate Order has nothing to do with its being a living thing.

We see here that there is no normatively significant difference between the Inanimate Order and the Animate Order. Whether the order consists in the functioning of a giant, inanimate Rube Goldberg-like structure or in the functioning of a giant ecosystem that consists in zillions

²⁷ Those who accept OtherLifeRegarding do so on grounds that there exists on Earth robust and old (billions of years old) patterns of living things' helping other living things and reproducing, and being functionally equipped, i.e., well-suited, to do so (especially in the case of reproduction). Advocates of OtherLifeRegarding infer normativity from these patterns. Different advocates of OtherLifeRegarding will take different patterns as relevant. The neo-Aristotelian will have a different conception of the Animate Order than the ecologist; and different ecologists may have different conceptions from each other.

of living things, the notion of normativity at play in the claim that it is normative for LT to serve this order is not natural normativity. The following thought experiment might cement the plausibility of my preceding claim: Suppose the giant ecosystem that it is purportedly normative for LT to serve is actually one miniscule part of one of zillions of inanimate parts of the Inanimate Order. In this case, is it normative for LT to serve the Animate Order only to the extent that doing so serves the Inanimate Order or to serve the Animate Order even if it stops serving the Inanimate Order? This is not a serious question, or at least would only be a serious question within the cottage industry of assessing what order it is normative for a living thing to serve. The question is intended to illustrate the implausibility of suggesting that order among any phenomena, inanimate or animate, is naturally normative for LT to serve.

A defender of OtherLifeRegarding might reply that a living thing has intrinsic value, while inanimate phenomena do not, and because of this, helping or producing a living thing, as opposed to relating to inanimate phenomena, seems to have normative significance. It is more plausible, then, to claim that it is normative for LT to help other living things and to reproduce than it is to claim that it is normative for LT to serve inanimate phenomena.

I want to present three problems for the above reply. First, even supposing a living thing has intrinsic value, the claim that it is *normative* for a living thing to relate in certain ways to things that have intrinsic value appeals to an understanding of normativity that is different from natural normativity. The sense in which it is claimed that it is *normative* for LT 1 to help LT 2 has nothing to do with LT 1's being a living thing, which is suspicious, because we are investigating here natural normativity, i.e., the view that a distinctive normativity is grounded in being a living thing. To appreciate that the sense in which it is claimed that it is *normative* for LT 1 to help LT 2 has nothing to do with LT 1's being a living thing, suppose some inanimate

phenomena are also functionally equipped, even *better* equipped than LT 1, to help LT 2. The advocate of the position has no ground for claiming that it is normative for LT 1 to help LT 2 but not normative for these inanimate phenomena, which are *better* equipped to help LT 2, to do so. (Appeal to the fact that inanimate phenomena lack choice is unavailable, because LT 1 lacks it also.) That she must say that it is normative for these inanimate phenomena to help LT 2 illustrates that the notion of *normativity* involved in the claim that it is normative for LT 1 to help LT 2 has nothing to do with LT's being a living thing, since the notion applies equally to inanimate phenomena.

Second, the plausible answer to the question "Why take it that a living thing, e.g., LT 2, has intrinsic value?" better supports the view that the ultimate end of a living thing is to survive than the view that it is normative for another living thing, e.g., LT 1, to help LT 2. The plausible answer is that a living thing is something that survives, i.e., sustains its life; this is what distinguishes it from inanimate phenomena and what semi-plausibly leads one to think that a living thing has intrinsic value whereas inanimate order does not. This answer, however, straightforwardly supports the view that the ultimate end of a living thing is to survive; and better supports this view than it does the view that it has intrinsic value.

Third, even supposing a living thing has intrinsic value, and even supposing its having intrinsic value makes it normative for another living thing to help it or to produce a living thing, and even supposing the sense of normativity at play in the preceding supposition is natural normativity, none of these suppositions support the argument for OtherLifeRegarding that appeals to Animate Order. The intrinsic value of a living thing would not make it normative for LT to serve a certain *ordering* of living things, e.g., the Animate Order. Animate Order does not have any intrinsic value as such: Two or more living things considered together do not constitute

a living thing (or something that is alive or has life). Only a living thing is alive. Yet the *prima facie* plausible ground for accepting OtherLifeRegarding is an appeal to Animate Order, specifically to historical patterns found on Earth of living things' helping other living things and reproducing.²⁸

Second problem: Contingency of patterns renders questionable their purported normativity

The first problem for OtherLifeRegarding, to repeat, is that it fails to treat a living thing as a living thing, viz., as a bearer of a special kind of normativity. Now, let me turn to the second problem for OtherLifeRegarding: The contingency of such patterns renders implausible the view that they are normatively significant. I want to present five ways in which they so render.

²⁸ In reply to the third problem, the advocate of OtherLifeRegarding might draw on one or more of the following three replies. (1) She might abandon the view that it is normative for living things to help other living things and to reproduce according to an Animate Order, and instead claim that it is normative for living things to help other living things and reproduce in any way. (2) She might claim that it is not true that only a living thing is alive, and rather that one or more of the following are alive and thus have intrinsic value: a set of living things, an ecosystem which includes inanimate phenomena, Mother Earth. (3) She might claim that Animate Order does have intrinsic value.

Regarding (1), the claim that it is normative for living things to help other living things and reproduce in any way is wildly arbitrary (and to my knowledge no advocate of OtherLifeRegarding has ever held it). Regarding (2), the claim is, first of all, implausible, and second of all, any degree of plausibility that it might have is parasitic on the much stronger plausibility of the view that a living thing is normatively special in that it is something that survives. It is only by analogizing a group of living things, an ecosystem, or Mother Earth, to *an individual living thing*, that the claim that any of the first three are alive has plausibility, e.g., the view that Mother Earth has different interrelating parts just as an *individual living thing* has. Regarding (3), Animate Order's having intrinsic value would neutralize the third problem only if it has intrinsic value in virtue of being alive (so, only if (2) holds); otherwise, there is no normatively significant difference between Animate Order and Inanimate Order.

First, the fact that such patterns are contingent strikes me as straightforwardly making implausible the claim that the ultimate end of a living thing is dependent on such patterns. These patterns might not have emerged. The view that if patterns of helping and reproducing happen to emerge, then it is normative for living things to help and reproduce, and if they do not, then it is not, strikes me as implausible. The normativity of survival does not depend on contingencies of the outside world and survival's being the paradigm end for a living thing justifies a presumption in favor of the view that what is normative for a living thing does not depend on such contingencies.

An advocate of OtherLifeRegarding might claim that helping and reproducing are normative even if there do not exist patterns of helping and reproducing, but this is implausible. Let us consider helping first. Suppose LT 1 is the first and only living thing in the universe. Is it normative for LT 1 to help other living things? Well, there are no other living things, and if there are no living things, it is implausible to suggest that it is normative for LT 1 to help them.

Suppose then a second living thing, LT 2, emerges in the universe, trillions of lightyears from LT 1. Is it normative for LT 1 to help LT 2? Nothing suggests so; so, no. One might have the felt sense (as I do) that the emergence of LT 2 in the universe has some special significance (as opposed to the emergence, say, a speck of dust). I do think it does, but the significance is not that we now have something that has altered LT 1's ultimate end; the existence of LT 2 has no more bearing on LT 1's ultimate end than the existence of a speck of dust. Rather, the significance is that we now have a second thing in the universe that has an ultimate end; and LT 2's ultimate end, like LT 1's, is to survive (and provisionally only to do so).

Suppose instead that LT 2 emerges right next to LT 1 (going forward this supposition will hold). It is still implausible to suggest that it is normative for LT 1 to help LT 2.

Now suppose LT 1 actually helps LT 2 once. Does that show that it was normative for LT 1 to do so or that it is normative for LT 1 to do it again? Both are implausible and arbitrary; it is equally plausible (or implausible) to say that it was really normative for LT 1 to kill and eat LT 2, or ignore LT 2 and build an asteroid pyramid, and that it is normative to do either of these alternative things in the future.

Is it normative for LT 1 to reproduce? Some people would say that to answer this, we need to know whether LT 1 is functionally equipped to reproduce (and if so, whether asexually or sexually, and if sexually, whether there is another living thing around that is sexually compatible). Let us suppose LT 1 is functionally equipped to reproduce. (I take it that if LT 1 is not so equipped, then the claim that it is normative for LT 1 to reproduce is implausible.) Is being functionally equipped to reproduce sufficient grounds for claiming that it is normative for LT 1 to do so? There is some plausibility to the answer “Yes” but at the same time the mere fact of being functionally equipped to reproduce does not seem to establish with any significant degree of confidence the normativity of reproduction. Would LT 1’s actually reproducing once, whether asexually or sexually with LT 2 (and in addition to being functionally equipped to reproduce) establish that it was normative for LT 1 to do so or that it is normative for LT 1 to do so again? Nothing suggest that either is the case. It is just as plausible or implausible to claim that it was normative for LT 1 to do something else and normative for it to do something else in the future, e.g., help LT 2, kill LT 2, build an asteroid pyramid.

The second way in which the contingency of patterns renders implausible the view that they are normatively significant is that patterns could theoretically have emerged that look like anything under the sun, which makes even more implausible that the ultimate end of a living depends on patterns. We tend to think of the patterns that happened to happen on Earth, in which

zillions of living things have been born, reproduced and helped others, all in robust and large scale patterns, patterns that have existed for billions of years and are shaped by evolution.

Consider, however, alternative possibilities. Suppose that there has never been any reproduction and that no living things have ever had reproductive organs. Instead, all living things emerge out of a black hole, or a sea of primordial goo on some planet, or just materialize in space at random locations and times. Alternatively or in addition, suppose that offspring will materialize out of the mass of existing living things at random times, not from any reproductive organs, but just out of any chunk of mass in the existing living things. And suppose this reproduction yielded unpredictable numbers and kinds of offspring. At a given time, one living thing or a million living things might materialize out of LT; and an offspring might look like LT or wildly different, e.g., imagine a fern's materializing out of a T-Rex, or a rabbit's materializing out of a cockroach. Suppose living things help each other, kill each other, are indifferent to each other, randomly and in myriad ways. Suppose all the patterns of reproduction and helping—and *not* reproducing and *not* helping or even killing—among living things served The Structure, floating in the center the universe.

Third, if one pays attention to the gaps of time during which patterns change, I think one will find even less plausible the view that patterns establish normativity. By the lights of the neo-Aristotelian and the ecologist, norms for the living things that belong to some kind or system—e.g., a species, an ecosystem—might change over time. For example, rabbits might change over time such that the neo-Aristotelian would say that, before, a norm for them was to have between three and five children, and, now, it is to have between three million and five million children; and such that the ecologist would say that, before, a norm for them was to provide food (their offspring) for the living things of a certain set of species, and, now, it is to provide food for the

living things of a much larger set of species. In between changes in norms, there will be gaps of time during which the neo-Aristotelian and ecologist will claim that what is normative for the living things (of some species or ecosystem) is indeterminate; that we must wait and see how patterns change. I think it is implausible to hold that there is such flux in the normativity of helping and reproducing.

Fourth, these patterns, at least to a significant extent, seem to be mind-dependent and their being so renders even more questionable their normativity. Frequently helping LT 2 is no more mind-independently orderly than doing so once (and then moving onto different actions, e.g., building an asteroid pyramid), or rarely, disparately spread across different times, or helping LT 2 many times and then killing and eating LT 2, or just killing and eating LT 2 the moment LT 2 emerged into existence.

Fifth, if we bring in the idea that there is no upper limit to the determinate form that the survival of a living thing can have, then, theoretically, large-scale and robust patterns could exist in an individual living thing's flourishing, patterns that would overshadow any patterns of helping and reproducing. Consider **Transcendentally Complex Muff**. Suppose Mrs. Muff, born as one insignificant part of the Animate Order, which in turn is one insignificant part of the Inanimate Order, has the potential to grow infinitely larger and more complex than the Inanimate Order that contains the Animate Order, such that the Inanimate Order that contains the Animate Order now just serves some insignificant function in one of Mrs. Muff's zillions of cells. In this case, by the method of inferring normativity from robust and grand-scale patterns among living things, it is plausible to regard Mrs. Muff's ultimate end as solely to survive. And if every living thing has a theoretical shot at becoming transcendentally complex, it is all the most plausible to hold that its end is solely to survive.

Summary of criticism of OtherRegarding

Let me summarize my three-step criticism of OtherRegarding, the view that at least one end other than survival is normative for living things. In the first step, I presented a dialectic between the neo-Aristotelian and the ecologist—the two mainstream candidates that uphold the view that other-regarding behavior is normative for living things—as a way of showing problems for both views, problems which I hope convince the reader that the view that other-regarding behavior is normative should be seriously questioned. Against the neo-Aristotelian, there are criticisms of the argument for the view that species concepts are normatively and metaphysically special, questions about how to determine what the species norms are, especially in light of the neo-Aristotelian position that the norms hold independently of empirical facts, and charges of moral bias. Against the ecologist, there are criticisms of the notion of intrinsic value, pressing issues of how to determine what things have it and what role a given living thing has in regard to the things that have it, the argument that intrinsic value is irrelevant to natural normativity, and charges of moral bias (which I added might be defended and also largely set aside).

In the second step, I argued that, even if we set aside all the problems that face the neo-Aristotelian and the ecologist—by the lights of the methodology with which the neo-Aristotelian and ecologist generally operate, a methodology according to which patterns among living things and the inanimate environment are normatively significant—the view that the ultimate end is only to survive is at least as plausible, if not much more plausible, than either of these competing views.

Third, I argued that facts outside a living thing are irrelevant to its ultimate end. Attraction to the view, whether a given advocate of the view leans neo-Aristotelian or ecologist, stems from (plausibly) inferring normativity from robust and old (billions of years old) patterns

of living things' helping other living things and reproducing, and being functionally equipped, i.e., well-suited, to do so. The normativity at issue in the view that patterns of helping and reproducing are normative for a living thing, however, has nothing to do with being a living thing and is therefore irrelevant to what is naturally normative for it. I also argued that the contingency of such patterns renders implausible the view that they are normative. And I hope through presenting these two arguments to have garnered increased confidence in my proposal that *facts outside LT, including both any other living things that exist as well as inanimate phenomena, are irrelevant to its ultimate end.*

The ultimate end of LT is determined by the one constant that persists amidst all possibilities of what the facts outside LT are, including facts about the inanimate surroundings, about whether there are other living things and if so what they are like, about what patterns we might find in the interactions among facts outside LT and between LT and any of these facts: The constant is that LT is a living thing, and thereby has an ultimate end, which is only to survive.

Survival is the Ultimate End of a Living Thing

Assuming that I have been successful in arguing that other-regarding behavior is not normative for a living thing, we are left with the view that self-regarding behavior is normative, i.e., that the ultimate end of a living thing is to engage in self-regarding behavior. I want here to explore this idea. I will start with what I take to be a reasonable and uncontroversial view of what self-regarding behavior consists in: *growth* and *self-sustenance*, where these notions are understood, for now, colloquially, i.e., in their everyday, ordinary sense. Growth refers to an increase in the size of the living thing, which can involve the growth of new parts and the further

growth of existing parts. Self-sustenance (a living thing's sustaining itself) refers to the various parts and activities of a living thing's sustaining themselves and the life of the living thing.²⁹

From this starting point—the view that the ultimate end of a living thing is to grow and sustain itself—I want to refine and develop this view in four steps, concluding with the view that the ultimate end of a living thing is to survive. First I will argue that it is not the growth of particular parts *per se*—e.g., a wing, a heart—that is normative for a living thing, but rather the growth of the living mass of the living thing, i.e., the growth of the living thing, considered as a whole.

Second, I will argue that our usual way of describing and understanding self-sustenance, viz., in terms of parts and their activities that sustain themselves and the life of the living thing, is not technically accurate, because it refers to activity that is only *instrumental* to something that is normative for a living thing. Self-sustenance, I argue, is the activity that underlies this instrumentally normative activity: It is the activity of living mass' sustaining itself.

Third, I will argue that the growth of living mass is actually just a form of self-sustenance of living mass; it is a result of the more fundamental activity of self-sustenance. The ultimate end of a living thing, then, consists exclusively in self-sustenance.

Fourth, I will argue that self-sustenance is the technically correct and precise understanding of *survival*, i.e., of being alive, remaining alive, persisting as a living thing in the face of death. Survival might alternatively be understood in one of two ways: On the first

²⁹ Self-sustenance more or less captures what is colloquially understood as a living thing's *surviving*. I want to reserve the term *survival*, however, to refer to my notion of self-sustenance, *after* it has been fully developed in my investigation. I will offer my developed notion of self-sustenance—according to which, as I will argue, growth is a form of self-sustenance—as the technically correct understanding of survival.

understanding, survival refers to the bare minimal amount of *activity* that needs to go in a living thing for it to remain alive. On the second understanding, survival refers to *living* suboptimally relative to an implicitly accepted notion of *living* optimally, i.e., “merely limping along in life” as opposed to flourishing. I will argue that both understandings are problematic in a way that supports understanding survival as self-sustenance. Once we clarify and get accurate about what survival is, we will see that survival actually refers to the above italicized notions of *activity* and *living* to which these understandings refer. And this activity, this living, is self-sustenance. The ultimate end of a living thing, then, consists exclusively in survival.

1. Growth of the living thing as a whole, is normative

I will argue here that (1) the growth in a living thing of particular parts—e.g., heart, wing, leg, red blood cell, etc.—is not *per se* normative, but rather only instrumental to something that is normative, and appreciating this will make plausible that (2) it is the growth of a living thing, considered *as a whole*, as a *holistic chunk of living mass*, that is normative.

Beginning with (1), consider Mrs. Muff’s growing a particular part, e.g., a second heart. If we ask ourselves why it is that the growth of the heart is normative for Mrs. Muff, we will find that our answers only support the claim that the growth of the heart is *instrumentally* normative. The heart will enable *future* effects in Mrs. Muff, e.g., pump more oxygen and nutrients into her blood, enable her to run faster, make her stronger, etc. (A question that surfaces would be whether any of these effects are (intrinsically) normative or whether they themselves are also only instrumentally normative to other effects.) In what sense would the growth of the heart be *intrinsically* normative? If we reflect on this question, we will find that no answer comes to mind. There is no good reason to believe, then, that the growth of a part is intrinsically normative for a living thing.

One might offer the alternative view that it is normative for Mrs. Muff to grow a particular, isolated chunk of living mass, a chunk that may correspond to a particular part (heart, cell, etc.) but which fact is irrelevant to an understanding of normativity. With the growth of Mrs. Muff's heart or the growth of a cell, one might suggest, it is the growth of the chunk of living mass that happens to correspond to a heart or a cell that is normative for her.

I think this alternative view, however, is just another formulation of the preceding view, because the notion of a particular, isolated chunk of living mass is inseparably bound up with the notion of a part. Some rhetorical questions will illustrate this: Why regard the living mass *that corresponds to her second heart* as a particular, isolated chunk of living mass the growth of which is normative? Why not say that the left half of the heart, plus a bunch of cells adjacent to left side of the heart, together correspond to a particular, isolated chunk of living mass the growth of which is normative? (Note that even in referring to the growth of *cells* one is referring to the growth of parts.) Furthermore, assuming—as advocates of this alternative view would seem to have to—that the growth of a particular, isolated, chunk of living mass begins at a certain time and ends at a certain time, why regard that time period as the relevant one? Why not say that the mass that grew in the first half of this time period corresponds to a particular, isolated chunk of living mass the growth of which is normative, and that the mass that grew in the latter half corresponds to a different chunk the growth of which normative?

I think there are no good answers to these questions and that this fact shows that it is mistaken to think that the growth of purported, particular, isolated chunks of living mass is normative for a living thing. Rather, we should accept my above claim of (2), that it is the growth of a living thing, considered *as a whole*, as a *holistic chunk of living mass*, that is normative.

2. Self-sustenance of the living thing as a whole, is normative

I will argue here that (1) much of the activity we colloquially would label as “self-sustaining” is only instrumentally normative for a living thing, and appreciating this will make plausible that (2) self-sustenance, in the sense of being intrinsically normative for a living thing, is the sustaining of living mass.

Beginning with (1), consider the following activities, all of which would generally be grouped under the notion of “self-sustaining activity”: Digestion, breathing, the circulation of blood, photosynthesis, locomotion, sensation, waste elimination, and the fight or flight response. I would classify all these as merely instrumentally normative for a living thing.

I will elaborate on a few of these examples. Considering digestion, by which I mean the process of breaking food down into smaller bits, it is normative for a living thing only because living things need food in order for various other activities to go on (and we may find intrinsic normativity in some of these other activities). Considering locomotion, it does not seem normative for a living thing to change location in the universe; rather, locomotion is only instrumentally normative, e.g., in enabling a living thing, say, to find food. Considering sensation, by which I mean a grasp of some aspect(s) of the external or internal world—through taste, touch, interoception, etc.—it is normative only when and because it enables future effects (that are intrinsically normative or instrumentally normative), e.g., the finding of food and shelter, the avoidance of predators. Considering the fight or flight response, it too is normative only when and because it enables a living thing to achieve certain ends, e.g., the marshaling of, say, a lion’s body, for a fight with a gazelle, is normative only because it enables the lion to kill and eat the gazelle.

All of the above activities and the parts that enable them contribute to sustaining the living thing, but now what exactly is the *intrinsic* normativity of self-sustenance? I suggest that underlying our individuation of activities and parts in a living thing is the chunk of living mass that it is, sustaining itself across time. Self-sustenance, in the sense that is intrinsically normative for a living thing (which is how I will continue to understand it going forward), is a feature of the living thing as a whole, i.e., of its living mass as a whole. It refers to living mass' sustaining itself across time (this is the claim of (2)), and not to activity in a living thing that is merely instrumental to a future sustaining of living mass. Self-sustenance is a continuous, holistic process that is manifested by the living thing as a whole, from birth until death. It is not a feature of any particular *part* of a living thing, e.g., stomach, heart; nor is it a feature of the all the parts of a living thing even when considered as an interrelated whole. Such a whole still refers to merely instrumentally normative activity, e.g., digestion, blood circulation.

3. Growth is a form of self-sustenance

The growth of living mass and the self-sustenance of living mass, I have argued, are normative for a living thing. Now I want to ask: Are growth and self-sustenance two distinct forms of normativity or are they in some way fundamentally connected? I am inclined to think that there must be some fundamental connection between the two and I suggest that the growth of living mass is a form of self-sustenance of living mass.³⁰ Here I want to offer a two-step argument for this suggestion. First I will defend the claim that there is no sharp distinction between the growth of living mass and the self-sustenance of living mass. Second I will defend the claim that former is a form of the latter.

³⁰ It also resonates with me to say that growth is a *byproduct* of self-sustenance. I am not sure which term, *form* or *byproduct*, is better, but going forward I will stick with *form*.

Beginning with the first step, the claim that there is no sharp distinction between the self-sustenance of living mass and the growth of living mass, I submit, is plausibly inferred from the fact that there is no sharp distinction between the *sustaining* of parts in a living thing—e.g., heart, lungs, etc.—and the *growth* of parts. What we refer to as Mrs. Muff’s *sustaining* her heart over time, for example, consists in the *growth* of parts, e.g., the growth of new cells that replace old cells. Whether we would say that Mrs. Muff’s heart *grew* over a certain period of time or whether we would say that her heart was merely *sustained* in that period of time, is just a matter of whether the pace of growth of parts exceeded the pace of destruction of old parts; exceeded enough to result in a net increase in size of the heart that is significant enough for us to say that the heart *grew* (we would not normally say, for example, that Mrs. Muff’s heart grew as a result of the growth of one cell, especially if the growth of this cell was preceded by the death of a pre-existing cell). Given that there is no sharp distinction between the sustaining of parts and the growth of parts, it is plausible to infer that there is no sharp distinction between the sustaining of living mass and the growth of living mass.

Now, moving to second step, I think the growth of living mass is a form of self-sustenance of living mass for two related reasons. First, I think self-sustenance is the more fundamental activity in the sense that its presence is necessary for making a living thing a living thing, i.e., for making living mass, *living*, whereas this is not the case for growth. We can imagine a living thing that never grows but I submit that we cannot imagine a living thing that is not self-sustaining. We first have self-sustaining mass, which can then grow.

Second, I suggest that the growth of living mass is a *result* of the activity of self-sustenance in the mass. When self-sustaining mass grows, it grows *as a result of* its being self-sustaining. If we appreciate this, I think it becomes plausible that what is normative for a living

thing is really just the activity of self-sustenance, which underlies and is responsible for the growth of itself, i.e., of self-sustaining mass. This is not to withdraw the claim that the *growth* of living mass is normative for a living thing, but rather to add the claim that growth is so in virtue of being a form of self-sustenance.

I conclude that *self-sustenance is what is normative for a living thing and is the only thing that is so.*

4. Self-sustenance is survival

Survival is typically understood as equivalent to being alive, remaining alive, or persisting as a living thing in the face of the threat of death. I offer self-sustenance as the technically correct and a more illuminating understanding of survival. Survival is the sustaining of living mass, which is the activity that underlies the growth of living mass and as well the growth of particular parts, e.g., hearts, etc.

Let me contrast my account of survival as self-sustenance against four alternative phenomena with which survival might be, mistakenly as I will argue, equated or at least associated: 1. Bare subsistence 2. Suboptimal living 3. Health 4. Longevity. I will argue that equating or associating survival with any of these four phenomena is mistaken in a way that lends support to my account of survival as self-sustenance.

First, some people would suggest understanding survival as bare subsistence, i.e., as the *bare minimal activity* that needs to go on in a living thing in order for it to be alive. Call this the Minimalist account of survival. I think the Minimalist account is mistaken because it has an implication that exacts enormous violence on our colloquial use of the word *survival*, which use which I presume is legitimate: The implication is that almost all activity in almost all living things that we ordinarily regard as survival (or living) activity would not count as survival

activity. Suppose we take Mrs. Muff and remove all the activity that is not necessary for her to be alive: We remove all her legs, both ears, both eyes, her nose, her mouth, her tail, a bunch of her insides, and shave off all of her fur (and thus all activity that is associated with any of these parts), leaving us with a smaller, immobilized and helpless chunk of flesh. If we remove any more activity in Mrs. Muff, she will instantly die. Call this chunk of flesh Bare Chunk Muff. The Minimalist would have to say that all the activity in Bare Chunk Muff is survival activity, but that if any more activity is added—say, the growth of a cell—that activity is not survival activity. Yet, we ordinarily would say that the growth of that additional cell counts as survival activity, just as all the other activity counts as survival activity. My account of survival offers good grounds for saying this: Underlying the growth of that additional cell, as well as all the other aforementioned activity in Bare Chunk Muff, is self-sustenance.

The second way people might understand survival is as living *suboptimally*, i.e., “merely limping along in life” as opposed to living *optimally*, i.e., what some might call *flourishing*. Call this the Suboptimal account of survival. If Mrs. Muff loses an eye, an ear, a leg and acquires several wounds all over her body from a predator attack, but can still in some sense limp along in life, according to Suboptimal-ists, she is *surviving* but certainly not living *optimally*, i.e., not flourishing. She would be flourishing if she had two eyes, two ears, etc.

A problem with the Suboptimal account of survival is that it presupposes the false claim that there is such a thing as *optimal* living for a living thing, relative to which the further from this optimum a living thing is, the more it is to be regarded as “merely” surviving, as opposed to living optimally, i.e., flourishing. There is, however, no optimum. Theoretically, Mrs. Muff can attain and continue infinitely to improve on a wildly transcendental state, a state that can have, and be infinitely improved on in any one of, an infinite number of determinate forms, e.g., a

million legs, a million wings, a million parts we have not yet imagined, etc. Given that there is no optimum, labeling living things as failing to live optimally, i.e., as “merely” surviving, lacks sense.³¹ (Would Mrs. Muff be “merely” surviving if she had merely a thousand legs as opposed to a million?) Survival, I suggest, is more plausibly understood as the activity of *living* in the Sub-optimalist’s notions of *living* sub-optimally and *living* optimally. And that activity of living is the activity of self-sustenance.

Another and deeper problem with the Suboptimal account, as well with the Minimalist account, is that they mistakenly understand survival as consisting in a *set of parts*, e.g., cells, hearts, brains, and in activities that are associated with these parts, e.g., mitosis, pumping blood, directing the movement of appendages; an envisaged “minimal” or “suboptimal” set.

Understanding survival in this way, advocates of these accounts would claim that any parts and associated activities that are *added* to this minimal or suboptimal set are distinct from and surpass the “mere” survival of the living thing. This understanding of survival in terms of a set of parts, however and as I argued earlier, is mistaken: The parts of a living thing are only of instrumental service to its survival, which consists in the living mass, considered as a whole, i.e., in the living thing, considered as a whole.

A third way people might understand survival is that it refers to health. Health would be understood here as something along the lines of the parts and associated activities of a living thing’s functioning well, i.e., conforming to such-and-such norms, and being free of any illness

³¹ If one wants to use *survival* to refer to living that is suboptimal relative to a conception of the *realistically* achievable optimum for a certain living thing, then one is no longer engaged in a theoretical investigation of the ultimate end of a living thing, but rather simply in an investigation of what a living thing’s pursuit of its ultimate end realistically can look like, given particular facts about that living thing and the world in which it lives.

or injury. The main problem with this understanding of survival is that it mistakenly understands survival as having a determinate form, in terms of parts and activities. A second problem is that the label of health (or lack of health) is a *state* that the determinate form of a survival process is in; yet survival is not a state. The parts and activities of a living thing sustain themselves across time; *that's* what survival (understood as having a determinate form) refers to. Whether at any given time the parts and activities conform to a state of health or lack of health is irrelevant to understanding the nature of survival.

Further to illuminate and cement the preceding claim, the notion of *physical* health, which is often contrasted against the notion of *mental* health (or equivalently *emotional* health or health in regard to the consciousness of a living thing that possesses consciousness), is also irrelevant to understanding the nature of survival. Some might be inclined to understand survival as referring to a living thing's being *physically* healthy (and not referring at all to whether the living thing is *mentally* healthy). There is a problem with this understanding of survival (in addition to the problem, as I just presented, that survival should not be understood as health to begin with). This understanding mistakenly implies that the state of the non-conscious parts of a living thing, e.g., cells and kidneys, relates to survival in a way that the state of the conscious parts of a living thing (for those living things that are conscious), e.g., thoughts and emotions, does not. Rather, both non-conscious and conscious parts have the same relation: They are distinct from the living thing's survival and can be only of *instrumental* service to the living thing's survival. Likewise, the non-conscious and conscious parts of a living thing's conforming to any proffered norms of health bear the same relation: Being healthy—whether physically, mentally, or both—is distinct from survival and can be only of instrumental service to survival.

One might suggest that, though survival is perhaps not equivalent to health, nevertheless the view that the ultimate end of a living thing is to survive is the view that the ultimate end of a living thing is for its survival process to be healthy (or to maximize its level of health). There are two problems with this suggestion. First, a survival process can always surpass any set of norms that are associated with the label of health or optimal living, e.g., Mrs. Muff can grow another leg. Second, the suggestion mistakenly assumes that the ultimate end of a living thing is something *independent* of its survival process, viz., the survival process' having achieved a certain state, e.g., health, optimal living. The activity of survival is not like the activity of building a house. In the latter case, the end, viz., the house, is distinct from the activity, viz., the building of it, and in relation to the end we assess whether the builders are building well or poorly. Survival is not a means to an independent end relative to which we assess the relative success or failure, or excellence or defectiveness, of the survival process. Rather, survival is its own end.

The fourth understanding of survival as referring to longevity also rests on the aforementioned mistake of thinking that the ultimate end of a living thing is something independent of its survival process. The ultimate end of a living thing is not for its survival process *to exist as long as possible*. The ultimate end is the *surviving* itself.

I hope that consideration of the above four phenomena—bare subsistence, suboptimal living, health, longevity—one or more of which might be equated to or associated with survival, lends further support to understanding survival as self-sustenance. The ultimate end of a living thing, then, is to survive and only to survive.

Now I will turn to the issue of whether there is a truth about what a given living thing's survival *should look like*, i.e., what determinate form it should have; about whether, for example,

it should grow two arms or three; or whether it should live one second, ten years, or a million years.

What should a living thing's survival look like?

There is no theoretical truth about what a living thing's survival should look like. There are two reasons for this. First, given that survival is not theoretically bound by any determinate form, that theoretically a living thing could live forever and develop zillions of parts and engage in zillions of activities that we might not be able even to imagine, it is not even clear what the theoretical notion of "what its survival should look like" even means. It is not clear what it would mean, for example, to claim that a living thing should develop a certain set of billions of parts rather than a different set of billions of parts. Why the former set and not the latter? And why not trillions of parts? I think there is no answer to these questions.

Second, the determinate form of a survival process is different from the phenomenon of survival itself. The determinate form of a living thing can be of instrumental service to its survival; its survival is the process of self-sustenance that underlies whatever determinate form it has at any given time. An inquiry that is purported to be an inquiry into what the survival of a living thing should look like, then, is really an inquiry into what determinate form (that is distinct from and can be of instrumental service to survival) should have, i.e., into what parts and activities (distinct from and possibly of instrumental service to its survival) it should have.

Now, while there is no theoretical truth about what the survival of a living thing should look like, there are, however, two practical and legitimate motivations for constructing determinate conceptions of survival for living things. First, we might want to help a given living thing at a particular time to survive, and to do this, we need to be guided by some determinate conception of how its survival would be promoted, i.e., what changes in parts and activities

would promote its survival. Second, for living things that have the power of choice, a determinate conception of how their survival would be promoted can guide their choices. I will consider these two motivations and the associated need to construct a determinate conception of survival, in turn.

1. Helping living things to survive

Given a living thing at a particular time, to construct a plausible determinate conception of how its survival would be promoted that could guide us, we reflect in an interrelated way on (1) in what ways it is realistically possible for that living thing's survival to be promoted, given its determinate form at this time, its environment, and what is possible for us to do for it, and (2) our intuitive judgments about which possibility is best. To elaborate on (2), supposing it is realistically possible to give Mrs. Muff a second heart or to give her a pair of wings but it is not possible to do both, we would use intuitive judgment to make a call on which alternative would be best. This intuitive judgment will appeal to myriad other intuitive judgments about what would promote Mrs. Muff's survival and intuitive comparisons of alternative promotions. In comparing the second heart to a pair of wings, for example, we would compare our estimates of what the second heart would do for Mrs. Muff in the future to our estimates of what the pair of wings would do for her in the future, a comparison which would involve myriad intuitive comparisons (that might happen subconsciously and extremely quickly in our minds) between the details of our estimates.

It is here—in the project of helping living things to survive—that the sort of norms that are referenced in discussions of species-based views of the ultimate end of a living thing—e.g., animals feed on organic matter, rabbits eat grass, plants absorb water through their roots, oak trees have deep and sturdy roots, etc.—have a legitimate role. I will now elaborate on this claim.

These kind norms are knowledge that we have empirically acquired of what is generally realistically possible for the survival process of the living things that fall under that kind to look like, and with respect to the features that are associated with that kind. Mrs. Muff at any given time may fall under several kinds (kinds that we have constructed based on grouping living things that are similar in various ways in determinate form), e.g., animal, mammal, rabbit. Norms that pertain to animals, to mammals, to rabbits and to any other kinds Mrs. Muff may fall under at any given time, may at various times be of practical use in helping Mrs. Muff survive.

To be clear, *kind norms do not specify the ultimate end of a living thing*. The ultimate end of a living thing, again, is to survive, and its survival process theoretically can break out of any determinate form that is specified by any kind norms. Rather, kind norms are rough, practical guides for helping the living things that currently fall under that kind to survive.

If there is a legitimate role for the evaluation of the parts and activities of a living thing, as well as of the determinate form of a living thing overall, as *excellent* or *defective*, *good* or *bad*, *right* or *wrong*, as they or it *ought to be* or *ought not to be*³² *qua* member of a certain kind (animal, rabbit, plant, oak tree, etc.), the role is this: These evaluations enable helping a living thing to survive. Evaluating Mrs. Muff's heart as defective (by whatever standards of defect one cares to supply here), for example, may enable a veterinarian to help Mrs. Muff's heart. Evaluating Mrs. Muff's heart as excellent (by whatever standards of excellence one cares to supply here), may enable the veterinarian to conclude that she might be better able to help Mrs. Muff's survival by looking at other parts of Mrs. Muff, for her heart is already excellent; alternatively, the veterinarian (one sympathetic to my view of the ultimate end of a living thing)

³² I use all these normative notions synonymously; *ought*, as I am using it here, does not imply that a living thing has the power of choice over whether it is as it ought to be or ought not to be.

might try to make Mrs. Muff's heart even better, viz., beyond excellent, or perhaps even give Mrs. Muff a second heart, one that would enormously promote Mrs. Muff's survival; or perhaps even give Mrs. Muff a pair of gills that will enable her to breathe underwater; or a pair of wings that will enable her to fly.

2. Guiding a living thing's choices

Of living things that have the power of choice (or agency or practical rationality) and during the time periods in which they have this power, the question surfaces of what they should choose to do. The answer is that they should choose to pursue their ultimate end, viz., survival.³³ Going forward, I will use the notion of *should* to characterize what is normative for choice in living things that have choice. So, when I say that *a living thing should survive*, I am referring only to living things that have the power of choice (and during the time periods in which they have this power), and claiming that what they should choose to do is survive.

The claim that a living thing should survive does not imply anything about what determinate form of survival—as regards parts, their associated activities and longevity—it should pursue. Should our living thing, LT, endowed with the power of choice, (try to) develop legs? Arms? Should it (try to) live for five seconds? A million years? How should it make trade-offs between different possible forms of survival promotion in those cases in which it cannot pursue all alternatives, e.g., between developing two legs or two arms, or between living longer

³³ Some might object to a move from an *is* to an *ought* here—viz., the move from the claim that the ultimate end of a living thing is to survive to the claim that what a living thing should do, if it has the power of choice, is to pursue its ultimate end—but I am assuming here sympathy to the project of natural normativity, i.e., of looking for the source of normativity in the nature of life.

but being physically smaller, or being physically larger but living shorter? Plausible answers to these questions depend on what is realistically possible and intuitive judgments.

To elaborate on how the plausibility of proffered norms for choice depends on what is realistically possible, it cannot be true that a living thing should pursue a form of survival that is impossible for it to choose to pursue. The impossibility might be due to facts about what a living thing is capable of being motivated to do and/or to any other facts about its determinate form or the world. It might be impossible for Mrs. Muff to choose to grow a thousand wings, for example, because she is not capable of being motivated to do so (supposing here that it is not possible for Mrs. Muff to choose to do something that she cannot be motivated to choose) and/or because it is not possible due to other facts about her nature and the nature of the world.

Kind norms could be constructed for the choices of living things that fall under that kind (a kind with which the power of choice is associated, and so based on the fact that the living things under this kind generally have this power). Supposing that oak trees in general now have the power of choice, they might construct norms such as that rational oak trees should grow deep and sturdy roots. This norm would be plausible only if rational oak trees in general were capable of choosing to grow deep and sturdy roots.

For kinds of living things that have choice, the distinction between kind norms that pertain to choice and kind norms that pertain to other aspects of those living things is not sharp, because what is generally realistically possible for the other aspects of these living things to look like is influenced by what is generally realistically possible for these living things to choose to do. Growing deep and sturdy roots would be a plausible kind norm for rational oak trees only if oak trees were generally capable of choosing to grow them.

For kinds of living things that have choice, then, all kind norms can be thought of as kind norms for choice. These kind norms can serve as rough, practical guides for the choices of the living things that are currently under that kind. A rational oak tree can consult the kind norms that other rational oak trees have constructed over time for rational oak trees, to pursue its survival. Violating these kind norms, it should be noted, does not entail that our rational oak tree failed to choose what it *should* have chosen or that our rational oak tree chose to do what it *should not* have chosen. There are two reasons for this. First, if it is impossible for our rational oak tree to choose, for example, to grow deep and sturdy roots, then it cannot be true that it should choose to do so, even if “rational oak trees grow deep and sturdy roots” is a plausible kind norm for rational oak trees (plausible in part on grounds that, in general, rational oak trees can choose to grow deep and sturdy roots; the one in particular here cannot so choose). Second, our rational oak tree might choose to develop a different and perhaps far superior way to survive than by growing deep and sturdy roots.

Let me summarize this Section. The ultimate end of a living thing is to survive. Survival does not mean bare subsistence, or suboptimal living, or health, or longevity. It means self-sustenance, which is the activity that underlies what is often labeled as “flourishing” in living things. In inquiring into what the survival of a particular living thing should look like, one is inquiring into something different from survival itself: One is inquiring into what determinate form that is of instrumental service to survival a living thing should have. There is no theoretical truth about what the survival of a living thing should look like. The determinate form of the survival process of a living thing at any given time can theoretically be promoted in an infinite number of ways, including in ways that shift the living thing out of one kind classification and

into another or perhaps no classification at all, e.g., from “human being” to “bacterium” to “oak tree” again to “human being” to “transcendent alien creature” to “miscellaneous.”

There are, however, two practical motivations for constructing determinate conceptions for a living thing’s survival: To help a living thing to survive and to guide a living thing’s choices (for those living things that have choice and during the time periods in which they have choice). At a given time, if a living thing has the power of choice, what it should choose to pursue is its ultimate end, viz., survival. This does not imply anything about what determinate form of survival it should choose to pursue, except that it cannot be true that it should choose a determinate form of survival that is impossible for it to choose. We can construct kind norms to serve as rough, practical guides for helping a living thing to survive and to serve as rough, practical guides for the choices of living things that have the power of choice and during the time periods in which they have choice.³⁴ We construct kind norms based on what is generally realistically possible for the survival of the living things of a certain kind to look like and on our intuitive judgments about what such realistic, determinate form of survival is ideal for them.

Survival is the Ultimate End of a Human Being

The view of the ultimate end of a human being that is offered in this paper can be well captured by repeating the final two paragraphs of the prior Section, with a replacement of occurrences of “living thing” with “human being,” as follows.

³⁴ These norms are only possible if there are enough other living things that are sufficiently similar in determinate form so as to justify the construction of a kind of living thing (and associated norms for this kind) under which to group these living things.

The ultimate end of a human being is to survive. Survival does not mean bare subsistence, or suboptimal living, or health, or longevity. It means self-sustenance, which is the activity that underlies what is often labeled as “flourishing” in human beings. In inquiring into what the survival of a particular human being should look like, one is inquiring into something different from survival itself: One is inquiring into what determinate form that is of instrumental service to survival a human being should have. There is no theoretical truth about what the survival of a human being should look like. The determinate form of the survival process of a human being at any given time can theoretically be promoted in an infinite number of ways, including in ways that shift the human being out of one kind classification and into another or perhaps no classification at all, e.g., from “human being” to “bacterium” to “oak tree” again to “human being” to “transcendent alien creature” to “miscellaneous.”

There are, however, two practical motivations for constructing determinate conceptions for a human being’s survival: To help a human being to survive and to guide a human being’s choices (for those human beings that have choice and during the time periods in which they have choice). At a given time, if a human being has the power of choice, what she should choose to pursue is her ultimate end, viz., survival. This does not imply anything about what determinate form of survival she should choose to pursue, except that it cannot be true that she should choose a determinate form of survival that is impossible for her to choose. We can construct kind norms to serve as rough, practical guides for helping a human being to survive and to serve as rough, practical guides for the choices of human beings that have the power of choice and during the time periods in which they have choice. We construct kind norms based on what is generally realistically possible for the survival of human beings to look like and on our intuitive judgments about what such realistic, determinate form of survival is ideal for them.

The project of inquiry into human *well-being* and the project of inquiry into *morality* (for human beings), I suggest, should be understood as *aspects of the inquiry into a plausible determinate conception of human survival* (henceforth just inquiry into human survival).

Considering well-being first, inquiry into human well-being (or welfare, self-interest, happiness, flourishing³⁵) is generally understood to mean inquiry into what the best life or at least a very good life for a human being, as far as benefit to her is concerned, consists in. Human well-being I suggest is not something distinct from human survival. Rather, human well-being refers to a state of human survival that we intuitively regard as an ideal that should guide our living. The goods that feature in the debate about what human well-being consists in—goods such as pleasure, desire-fulfillment, and what are often called objective goods, such as knowledge, friendship, love, meaningful work and the appreciation of art—should be understood as proffered candidates for a plausible determinate conception of human survival. Pleasure, desire-fulfillment, etc. are crucial for human survival just as are breathing, eating and drinking water. A human being who is deprived of pleasure, desire-fulfillment, etc. will tend to lose motivation to live, to be healthy and to be more prone to disease, earlier death and to commit suicide.

Now considering morality, my suggestion that inquiry into morality should also be understood as an aspect of inquiry into human survival, rests on sympathy to a neo-Aristotelian outlook on morality. Neo-Aristotelians have criticized the view that morality by its nature is something distinct from and in conflict with self-interest and instead uphold happiness (or flourishing or *eudaimonia*) as the ultimate end of a human being and as the orienting concept for

³⁵ I use all these terms equivalently here.

moral inquiry.³⁶ They tend to understand moral inquiry as inquiry into how to live generally, and specifically into what human flourishing consists in and how to realize it; perhaps with special emphasis how one should treat other people, but if so an emphasis that is an aspect of the bigger picture of how to live generally. I think this understanding of morality is correct and that one of its virtues is that it does not prejudge morality as inherently opposed to self-interest.

Adopting this understanding of morality, I propose that there is one and only one theoretical principle of morality: Survive.

This principle, however, is not practically useful, because it does not entail anything about what survival should look like. Thus, we need to construct a determinate conception of human survival (which involves acquiring knowledge of what is generally realistically possible for the determinate form of the survival process of human beings to look like and reflection on our intuitive judgments about which determinate form is ideal). This determinate conception would include moral norms that are more concrete than the theoretical norm “Survive,” e.g., be honest, courageous, keep your promises, do not kill, etc.

Any proposed moral norm must be evaluated according to whether the norm serves human survival, i.e., serves the realization of a plausible determinate conception of human survival that is continually reflected on and in principle revisable according to changes in intuitive judgments and in what is realistically possible. The norm “in general, do not kill” is a plausible moral norm, because following it generally serves human survival, e.g., most people would be terrified of killing another human being, suffer extreme trauma from doing so, probably suffer retaliation from others from doing so, and whatever genuinely survival-

³⁶ See, for example, On Virtue Ethics.

promoting good they might seek from doing so (e.g., the release of feelings of hatred) could have been attained by other means, ones that are less self-destructive (e.g., psychotherapy).

If our intuitions about human survival change, which would happen if facts about what is realistically possible change, then we rightly would revise our moral norms. Suppose, for example, the world changed such that human beings could remain alive only by killing and eating other human beings. In this case, the norm “in general, kill and eat human beings” would be a plausible moral norm, because following it generally serves human survival.³⁷ Also plausible, supposing it realistic (and hopefully it would be), would be the norm “try to find a way for human beings to coexist without killing each other,” because following it generally serves human survival (one could live in less fear of other human beings; more possibilities for friendship and love open up).

Though I discussed well-being and morality separately, I follow the neo-Aristotelian tradition in its rejection of a purported distinction between self-interest and morality and of a purported distinction between, on the one hand, self-interest and/or morality, and, on the other, the naturalistic ultimate end of a human being (which I have argued is survival rather than the instantiation of one’s species). Norms for well-being and for morality are survival norms. I

³⁷ Some might claim that if a proffered moral norm is so distant from anything that we would ordinarily understand as a *moral* norm, then perhaps this norm, even if it is plausible as a guide for living, should not be called a *moral* norm. Hursthouse expresses this thought when she writes: “It is a contingent fact, if it is a fact, that we can, individually, flourish or achieve *eudaimonia*, contingent that we can do so in the same way as each other . . . and contingent that we can do so all together, not at each other’s expense. If things had been different, ethics would not exist, or would be unimaginably different.” (On Virtue Ethics, p. 264.) Allowing room for this position, I would then say that “in general, kill and eat human beings” is a plausible norm for living, regardless of whether it should be called a *moral* norm.

suggest that it is not important whether any given survival norm—e.g., take care of yourself physically and emotionally, find and nurture loving relationships, engage in meaningful, productive and enjoyable activities, do not kill people, develop virtues X, Y, Z, etc.—is classified as a well-being norm or a morality norm; or, at least, we should start seriously questioning whether, and if so why and to what extent, the classification is important.

A plausible set of survival norms is only a rough, practical guide for an individual human being. To the extent that adherence to these norms conflicts with the pursuit of survival, then one should not adhere to these norms. It might not be possible for a human being to adhere to a particular norm; and a human being theoretically might always exceed any norm. Coco, who at present is a human being, might figure out a way to live a billion years, develop the capacity to form intimate relationships that are wildly different from and far superior to any of the relationships with which we are familiar (friends, romantic partners, etc.), invent fields of art and science that are beyond the grasp of any human being, fly and breathe in space, teleport to different galaxies and explore them with novel sense organs that she developed in her lab and surgically placed in herself.

All the more power to Transcendental Coco.