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Types of Teleology in the Thought of Hans Jonas

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The philosopher Hans Jonas, responding to his former teacher, Martin Heidegger, formulated a comprehensive philosophy of life. Included in his thought are numerous references to and uses of the notion of teleology. Though Jonas’s overall system of thought, especially concerning environmental philosophy and the philosophy of technology, has been examined recently, an in depth understanding and systemization of his thought on teleology has been neglected. My dissertation is designed to offer such a contribution to a deeper understanding of this important thinker. I begin by situating Jonas’s overall philosophical project in proper relation to Heidegger, seeing how he both employs and critiques Heidegger’s existentialism. However, a second situating is also necessary, i.e., a presentation of Aristotle, Kant, and contemporary thinkers on teleology, which then provides a basic framework for the subsequent examination of final causality in Jonas’s philosophy. That framework established, I present a thorough, comprehensive, and systematic analysis of Jonas’s thought on the teleology of organisms. This includes articulating Jonas’s ideas on the teleology of organic parts, the teleology of organic activity, as well as specific modes of teleology for animals and for human beings. Jonas’s thoughts on the teleology of reproduction I next consider, before moving to a more controversial claim of Jonas: that cosmological development and evolution are in some sense purposeful. I also offer ways to understand these claims in light of Darwinism. Finally, I present a critical reflection on Jonas’s system of teleology, showing its overall tenability, importance to his thought in general, and possible relevance to the philosophical understanding of teleology and life.
This dissertation by Matthew J. Pietropaoli fulfills the dissertation requirement for the doctoral degree in Philosophy approved by Richard Hassing, Ph.D., as director, and John McCarthy, Ph.D., and Michele Averchi, Ph.D., as Readers.

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Dedicated to my Parents, Angelo and Suzanne Pietropaoli,
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Introduction

The thought of German-American philosopher Hans Jonas (1903-1993) concerns numerous issues: the philosophy of Life, the philosophy of technology, biomedical ethics, economic philosophy, political philosophy, the philosophy of God, the philosophy of religion, etc. Thus, he presents works on such diverse topics as evolution, metabolism, genetic engineering, Marxism, immortality, creation, and the role of God during WWII. But Jonas’s multifaceted philosophical work is united by one overarching concern: formulating a proper response to thought of his former, Martin Heidegger, which, Jonas contended, tended toward nihilism. Therefore, Jonas’s main philosophical project is what could be called an “ontology of value,” an attempt to ground a system of value in reality to include all life, not just human life. Jonas presents his thought in the following main works: *The Phenomenon of Life* (1966), *The Imperative of Responsibility* (1979), *Philosophical Essays* (1980), *Mortality and Morality* (1996), and *Memoirs* (2008).

Central to this project is Jonas’s use of the notion of teleology. Jonas believes that living things, i.e. organisms, are purposeful, such that reality itself is value-laden. For example, in *The Imperative of Responsibility*, just prior to the position that Life is a basic and indeed ontological good, we see an entire chapter “Concerning Ends and Their Status in Reality,” which serves as a central premise for the aforesaid conclusion on the value of Life. Likewise, in his prior work, *The Phenomenon of Life*, Jonas devotes an entire chapter to discussing and articulating a distinction between organic and cybernetic teleology. For Jonas, then, Life is end-directed. And, thinks Jonas, a proper understanding of this final causality that is ingredient to Life will lead to a proper understanding of the basic value of Life. Hence, Jonas’s project of overcoming the possible nihilism of Heidegger’s thought hinges on Jonas’s philosophy of teleology.
But Jonas’s understanding of teleology raises key questions: Do all or only higher order organisms act for purposes? Do organisms act for the same kind of purposes? Do they pursue their purposes in similar ways? Are there higher purposes towards which organisms are ultimately ordered? Are living things oriented toward ends beyond themselves, e.g., the begetting and care of offspring? How does this sort of organic teleology actually lead to an “ontology of value”? What, if anything, does Jonas about teleology in relation to evolution?

Nonetheless, questions such as these have not been addressed sufficiently in current scholarship on Jonas. Recent years have seen impressive examinations of various aspects of Jonas’s system. A leading example is Theresa Morris’s *Hans Jonas’s Ethic of Responsibility: From Ontology to Ecology* which explores Jonas’s ontology of value. Neither in her study, however, nor elsewhere in the secondary literature in the English speaking world, is the manner in which teleology fits into Jonas’s system addressed thoroughly. This dissertation is designed to offer such a contribution to the field of Jonas scholarship. This is an especially important contribution because teleology is so central to Jonas’s thought.

The purpose of this dissertation is to present a comprehensive discussion of Jonas’s theory of teleology, looking at the different ways teleology figures in his philosophy. This examination will be divided into two categories: (A) an examination of what we may call “intrinsic teleology” and (B) an examination of what we may call “extrinsic teleology.” Under the A category we will consider the sorts of teleology manifest in organisms, in which the purposes are intrinsic to the organism, either qua individual or qua member of a species. We will also address the place of reproduction in Jonas’s account of teleology. Under the B category, we will address the teleology in which the purposes pursued are extrinsic to the organism, both as
individual and as member of a species. Here, we will examine teleology in relation to evolution and cosmological development. Exploring these aspects of Jonas’s teleology will show his robust understanding of purpose.

This dissertation will consist of six chapters. The first chapter will introduce Jonas’s ontology of value. We will start by exploring how Jonas’s philosophy responds to Heidegger. Against Heidegger, Jonas insists that nature has real subjects, possessing intrinsic value, even apart from human life. Heidegger’s existentialism renders non-human nature as devoid of any intrinsic value, mere stuff to be exploited, whereas Jonas posits a re-understanding of nature such that it can lead us to a foundational ethic capable of articulating and defending the basic goodness found in human beings and in organic nature in general. For Jonas, bi-furcated existential categories—self/world, freedom/necessity, being/non-being, and form/matter—obtain in organic nature generally. Being, as manifest in living beings of any sort, can thus be shown to be value-laden. In this chapter, we will look mainly at Being and Time (Division II, sections 2 and 3), The Phenomenon of Life and Memoirs.

In chapter two, we will begin discussing how teleology works in Jonas’s ontology of value. We prepare this discussion on Jonas by situating him in relation to central positions in the philosophy of teleology, mainly Aristotle on final causality in Physics II, Kant’s account of natural purpose in the Third Critique (2nd Part, 1st Division), and contemporary authors such as Ernst Mayr and Ernest Nagel. We will then briefly present some of Jonas’s general views on teleology in relation to these perspectives, so as to outline the role of teleology in Jonas’s ontology of value. Chapter three will begin the discussion of Jonas’s views on the intrinsic teleology of organisms. We will first examine the basic structures of organic teleology, including the function of organic parts; this will involve Jonas’s account of the difference(s) between the
teleology of machines and that of organisms. We then will discuss how teleological activity obtains in the three levels of organic life: plant, animal, and human, looking at the important teleological similarities and differences present on these levels. We will also analyze how the capacities of emotion, motility, and sensation generate new sorts of final causality for animals and humans, as opposed to plants. Finally, we will highlight what Jonas regards as the distinct features of human teleology, which obtains in our speculative intelligence, moral action and responsibility, and the making and use of tools.

Chapter four will look at a key issue of intrinsic (species specific) teleology: how does reproduction figure in Jonas’s teleology? Our concern will be to develop how Jonas allows for the possibility of an organism achieving its telos in and through reproduction, thus not as an individual but as a member of the species. We want to show how Jonas’s teleology—employed to overcome the nihilism found in Heidegger—obtains in the case of reproduction, as reproduction shows an overcoming of the Dasein’s self-referential care. Here, it may be necessary to offer an extension beyond Jonas’s explicit claims, which are rather few, by addressing the broader implications of his thought.

Following these discussions on intrinsic teleology, chapter five will examine Jonas’s views on ultimate, extrinsic teleology. The main question here is this: is there, for Jonas, an overall telos to evolution and cosmological development or are these processes purposeless? If life, as evolved, or even the cosmos itself turn out, in Jonas’s system, to be pointless, such a position could undercut his ontology of value. His system, therefore, ought to support the possibility of values which stand as ends towards which universal evolution as a whole is directed. This chapter will focus on Jonas’s thoughts on extrinsic teleology relevant to evolution and cosmology.
To close out this dissertation, chapter six will assess Jonas’s philosophy of teleology, by offering a critical analysis of some of the more controversial aspects of his account, by considering how it contributes to his ontology of value, and by examining ways in which his thought on teleology offers important contributions to contemporary philosophy of teleology, philosophy of science, and environmental ethics.
Chapter One

Hans Jonas’s Philosophy of Life in Response to Martin Heidegger

The thought of Hans Jonas can best be understood in relation to his former teacher, Martin Heidegger. Jonas’s philosophy is both a critique and an incorporation of Heidegger’s. Lawrence Vogel, writing about Jonas, states the following. “Because he saw . . . nihilism crystallized in Being and Time—the master work of his Doktovater, Martin Heidegger—Jonas’s fundamental project can be seen as . . . an overcoming of his intellectual father-figure.”¹ According to Vogel, Jonas saw Heidegger’s “behavior during the Third Reich . . . as a symptom of the ethical weakness of Heidegger’s nihilistic ideas.”² This recognition led Jonas to pursue a “critique of nihilism”³ and to discuss an “objective reality of value—a good in itself.”⁴ Theresa Morris’s work on Jonas argues for this same point. She writes: “Jonas’s work is a critical response to his teacher’s philosophical thinking.”⁵ In particular, says Morris, “Jonas’s work is shaped, in part, through an . . . intellectual struggle with his former teacher that originates with Heidegger’s concession to National Socialism.”⁶ This struggle helps “form the basis for his critique [of nihilism] and the spur towards his” re-establishment of objective value in reality.⁷

In fact, scholarship on Jonas often reiterates this theme: Jonas’s philosophy works out his response to his teacher, Martin Heidegger. Richard Bernstein comments that Jonas’s last work,

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² Ibid.
³ Ibid., 5.
⁴ Ibid., 13.
⁶ Ibid.
⁷ Ibid.
The Imperative of Responsibility, “can be read as . . . an answer to Heidegger.”

Similarly, Alan Rubenstein states that “it is of immense significance for understanding Jonas’s own rebuttal of the . . . [nihilist position that the philosophy of Heidegger’s early masterpiece Being and Time is seen by Jonas as part of this tradition [of nihilism].”

Richard Wolin speaks effusively of Jonas’s encounter with Heidegger. “By daring to confront Heidegger’s Nazism directly and . . . by seeking to tie the philosopher’s political lapsus directly to the deficiencies of his thought, Jonas displayed the unwavering moral integrity that would become the hallmark of his life and work.” And Christian Wiese presents perhaps the clearest example of this emphasis theme: “Jonas’s entire work can be understood as a response to the challenge posed by Heidegger.”

Interestingly enough, Jonas himself recognizes how his philosophy stemmed from his understanding of Heidegger’s thought. Jonas recalls his initial encounter with Husserl’s phenomenology. Finding Husserl’s thinking too abstract, Jonas then describes how Heidegger’s phenomenology of Being-in-the World helped ground philosophical analysis in lived experience. “The existential philosophy of Martin Heidegger” provided a “great shift in thinking” which influenced Jonas deeply. Nonetheless, Jonas, in the same essay, discusses reasons why he ultimately critiqued Heidegger’s philosophy. Jonas finds that Heidegger did not address adequately the phenomenon of organic human life, especially in relation to other organisms such as animals and plants. More importantly, Jonas takes heartfelt and serious issue with

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13 Ibid., 47-48.
Heidegger’s Nazism. Jonas states: “When the most profound thinker of my time fell into step with the thundering march of Hitler’s brown battalions it was . . . a debacle for philosophy.” Thus, says Jonas, “philosophy itself . . . has declared bankruptcy.” In the face of this “bankruptcy”, Jonas wishes to recover “some of that splendor” of philosophy by pursuing a comprehensive philosophy of life which could help ground objective value.

Nonetheless, despite his criticism against Heidegger, Jonas’s own philosophy incorporates numerous elements of Heidegger’s thought. In short, Jonas uses Heidegger’s categories to develop a fundamental ontology of organic existence, in order to overcome Heidegger’s nihilism. Jonas thus offers an “existential interpretation of biological facts.” Unlike Heidegger, Jonas’s fundamental ontology addresses the phenomenon of all organic life, not just the phenomenon of the human Dasein. In fact, Jonas stated to Leon Kass that the *Phenomenon of Life*—one of his two most influential works—was written very much under the sway of Heidegger’s philosophy. And Richard Bernstein, commenting on *The Imperative of Responsibility*—Jonas’s other most influential book—states that “there is a sense in which Heidegger’s presence is manifest on almost every page of the book.”

Thus, in our initial look at Jonas, we have seen that his philosophy is both a criticism of Heidegger’s thought and an interpretation of that same thought. In blunt terms: Jonas uses Heidegger’s own philosophy to overcome the issues (e.g. nihilism) obtaining in that same philosophy. Jonas is a Heideggerian against Heidegger.

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14 Ibid., 49.
15 Ibid.
16 Ibid.
Several important questions, however, present themselves at this juncture. Heidegger was an immensely prolific thinker. What particular aspects of Heidegger is Jonas focused on in his critique of Heidegger’s supposed nihilism? What is Jonas’s concern with Heidegger’s alleged failure to discuss organic life? Why does Jonas think this system leads to nihilism? At the same time, we should ask: in what ways is Jonas using Heideggerianism against Heidegger? What parts of Heidegger’s thought deeply inform Jonas’s own positions? In what ways does Jonas, in pursuing what we will call an ‘ontology of value,’ explicitly move beyond Heidegger, while incorporating the basic concepts of his thought?

Answering these questions will be the task of the first chapter of this dissertation. Hence, we will pursue the following presentation of Jonas’s thought. First, we will examine some topics in Heidegger’s thought in *Being and Time*, as well as *The Fundamental Concepts of Metaphysics*. These works best express the Heideggerian positions to which Jonas responds. Mainly, we will focus on the following themes in Heidegger: how Dasein, with its basic mode of Care, is a Being-in-the-World, but animals, lacking understanding, are “poor in world”; how Dasein, within this world, can exist inauthentically and authentically in its Being-unto-Death; how an authentic appropriation of the inevitability of death opens up Dasein’s range of existential possibilities; and how Dasein serves as the nexus of value in its world. Our next task is to see Jonas’s critique of these Heideggerian positions. Firstly, Jonas thinks that Heidegger separates Dasein from organic existence (and vice versa), thus isolating both Dasein and the natural world from each other and so rendering the latter as non-valuable. Secondly, Jonas thinks that, because of this separation of man from nature, the only normative guidepost is Dasein’s resolute authenticity. Thus, according to Jonas, Heidegger’s thought here ultimately descends into nihilism and acceptance of Nazism. After presenting Jonas’s criticisms, we move to see how
Jonas actually incorporates, in his own philosophy of life as grounding of value, some of the Heideggerian themes mentioned above, such as world, death, and possibility. Namely we will look at how Jonas extends these aspects of Dasein’s existence to all organisms. Hence he posits his existential interpretation of biological facts, which he sees as able to ground objective value in reality. Finally, we will discuss Jonas’s “ontology of value” which responds to Heidegger’s nihilism. That discussion will open a range of issues pertaining to teleology, which will guide the remainder of this dissertation.

Hence, this chapter will have the following division. In part one, we will address the Heideggerian themes from *Being and Time* and *The Fundamental Concepts of Metaphysics*. In part two, we will look at Jonas’s critiques of Heidegger’s thought as being nature-less and nihilistic. In part three, we will examine Jonas’s Heidegger-like interpretation of biology. In part four, we will see how this interpretation leads to the aforesaid ‘ontology of value.’

**Part I: Existential Analysis of Dasein**

Jonas’s central response is to the existentialism of Heidegger’s *Being and Time*, in which Heidegger examines the basic structures of Dasein’s existence. Consequently, as we lay the ground for our discussion on Jonas’s criticism and reinterpretation of Heidegger, it is first necessary to discuss Heidegger’s existential analysis of Dasein.

*Being-in-the-World*

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20 In presenting Jonas’s philosophy in this manner—i.e., looking at his existential analysis of life and then at his consequent discussion on value—I am following the lead of Lawrence Vogel. See his “Hans Jonas’s Exodus: From German Existentialism to Post-Holocaust Theology,” 6-19.
The first issue to address is Dasein’s “Being-in-the-World.” To better grasp the phenomenon of world, we note first that the term, “World,” for Heidegger, does not follow the ordinary usage of this term. World does not refer to the earth, the cosmos, or reality in general. In short, world is “that already familiar horizon upon which everyday . . . existence confidently moves.”\(^{21}\) We can grasp more fully this idea of world by examining its opposite, i.e., worldlessness. Heidegger is adamant that a stone is “worldless.”\(^{22}\) A stone is something whose positioning and motion is caused by something or someone else. The stone is positioned in a field after being thrown there by someone passing on the road who tossed the stone from the road to the field. The stone exercised no power or force in this event. Rather, it was moved according to the activity of something else. As such, the stone is part of the world of the passerby who threw it. Moreover, the stone may also be part of the world of the farmer who cultivates the field. But given that the stone does nothing—that it has no intentions, no plans, no life-project to work out—the stone lacks a world.\(^{23}\)

Thus, for there to be a world there must be some agent (Dasein) around whom this world formed and who is responsible for its formation. Heidegger gives a spatial metaphor for the world referring to it as “sphere”, which term helps capture the phenomenon of the world being formed \textit{around} Dasein.\(^{24}\) Indeed, the world is in this sense a sphere of involvement and influence, the “structural whole of significant relationships that Dasein experiences.”\(^{25}\) Insofar as Dasein pursues certain projects, makes certain plans, and is invested in its own manner of...


\(^{23}\) \textit{Fundamental Concepts}, 197.

\(^{24}\) See \textit{The Fundamental Concepts}, 204.

\(^{25}\) Krell, “Introduction to The Origin of the Work of Art,” 141.
existence, then Dasein is a Being-in-the-World, according to Heidegger. Because of his “concernful dealing,” Dasein plans and carries out projects in his life. In other word, he forms and exists in a world of equipment, designs, activity, etc. that is informed by his level of concern. The world is thus the meaningful context of the totality of equipment and relationships in which Dasein exercises it concernful dealings.

We should say more about equipment in order to illustrate more clearly this phenomenon of world. According to Heidegger, the equipment is what it is because it accords with Dasein’s “concernful dealings.” The set of equipment are those items which serve definite purposes and play definite roles within this world. The item which we term a “hammer” is what it is because it can be used for hammering. Equipment encountered within a world thus manifests the fundamental way in which Dasein exercises it concernful dealings. The hammer which hammers well in house-construction is a “serviceable” piece of equipment in Dasein’s world.

Yet it would be incorrect to posit that Dasein’s world is merely the totality of things which are of immediate practical benefit. After all, Dasein is “that entity which in its Being has this very Being as an issue [and] comports itself towards its Being as its ownmost possibility.” Dasein is structured by its attempt to work out what it will become. Asking and answering the question “what will I (or what should I) be” provides a fundamental organization to Dasein’s existence as such. Dasein, therefore, does not exist in world populated merely by pragmatically useful items nor in a world which is framed only according to pragmatic needs. Rather, Dasein’s

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27 Ibid., 102.
28 Ibid., 116.
29 Ibid., 102.
30 Ibid.
31 Ibid., 68.
Being-in-the-World just is its own lived response to the question of meaning of its own being. Because Dasein wants to be a certain way, it consequently interacts with, interprets, and responds to what is around it in light of that primary existential desire.

Let us look at a particular example of this phenomenon, seeing how the equipment of the world and its use ultimately refer back to the issue of Dasein’s being. A hammer is “involved” in hammering; hammering is “involved” in “making something fast; . . . making something fast” is “involved” in “protection against bad weather; . . . and this protection is for the sake of providing shelter for Dasein.”

Thus, there are numerous relationships of “involvement”—the hammer in hammering, the hammering in fast construction, etc.—and all of these relationships culminate in an ultimate “for the sake of which”, i.e. obtaining shelter for Dasein.

Dasein, insofar as it is concerned with its own being, thus operates in a world which is oriented towards addressing that very being. In short, the world—the “wherein a factical Dasein . . . can be said to live” exists and is structured “for the sake of a possibility of Dasein’s Being.”

Granted, the equipmental work done in the world which is oriented towards addressing Dasein’s being culminates, in this case, in the construction of a shelter, hence meeting a basic life-need for Dasein. In this way, hammering is practical and of pragmatic benefit. But two other points need to be made here. First, where this house is constructed and how it is constructed both occur in accordance with Dasein. Hence the hammer, in being used to construct the house, is directed not only to the issue of survival but also reflects how Dasein wishes its house to be for others.

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32 Ibid., 116.
33 In the following pages, we will discuss more about involvement when talking about “assignment.” For now, the main point is that any equipment is what it is because it has been “assigned” a certain role in Dasein’s world for the sake of doing certain work, and that equipment’s involvement in its task (e.g. hammering) is its carrying out the role to which it has been “assigned.” (See Being and Time, 97 for more discussion on “assignment”) Thus, insofar as the hammer hammers nails into boards (i.e. other equipment) it carries out the role to which it has been assigned within the context of “its belonging to other equipment.” (Ibid)
34 Ibid., 93.
itself. What sort of existence Dasein wants to have is made present in its choice of a home and hence made present in the mode of its construction done with equipment such as the hammer. Second, hammers are also involved in other tasks besides house construction, which tasks again make evident this issue of existential import. For instance, Dasein can hammer nails into a wall, for the sake of hanging artwork. The issue of being artistic, perhaps, thus governs the use of the hammer in Dasein. Once again, we see that centrality of Dasein’s being, even with basic, everyday equipment in the world of Dasein. In other words, Dasein is the ultimate reference point for the phenomenon of a world. Dasein, of course, is not somehow over and above this world; in fact, Heidegger states that “submission [to the world] belongs essentially to its Being.” Dasein is thus constituted by “Being-in-the-world,” structured by its relation to the equipment of that world.

Such a relation, in turn, hinges on the issue of assignment. For Heidegger, the hammer exists as such because it has been assigned to a certain role within the world, namely the role of hammering. Dasein has access to the hammer in its being by accessing the hammer in this manner of assignment. In fact, Dasein has such access (of being) to all the entities in its world. In this way, it has access “to beings as such.” Nonetheless, access (of being) is not mere physical contact. Access here is the capacity to understand the hammer and its assignment in Dasein’s world. Dasein thus is able to understand the greater context and system of relations in which the hammer, as such, functions. Dasein also can grasp what it wants to become and the way in which

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36 Ibid., 121.
37 Ibid., 78: “An interpretation of this constitutive state... which we have called ‘being-in-the-World’... is needed if we are to set up our analytic of Dasein correctly.” In other words, Being-in-the-World is fundamental to any consideration of Dasein. See also Fundamental Concepts, 285: “‘Man as man is world-forming.’”
38 Here we will add to the discussion already begun in footnote 36.
the equipment of its world is usable for that project. It can interpret the things around it light of
the possibilities for its own being. Dasein thus possesses a cognitive and linguistic grasp of the
assigned equipment and the world wherein the equipment operates.

Yet Heidegger does not think that animals possess this sort of cognitive and linguistic
ability. Thus, their interaction with entities is different from the manner in which Dasein
encounters entities in its world. Referring to animals, he speaks about ‘captivation.’ An animal
is captivated by something(s) in its environment insofar as the animal is instinctually either
drawn towards or away from such thing(s). A bee, for instance, is so drawn to honey, that even
when its abdomen is removed and the honey “runs out of the bee from behind it,” the bee will
still pursue honey. In this way, the bee (or any animal) does not encounter the honey (or any
other entity) as such in its being. “The possibility of apprehending something as something is
withheld from the animal.” Heidegger, therefore, contrasts this instinct driven behavior of an
animal from the conscious “comportment” of Dasein. After all, “to Dasein’s Being, an
understanding of Being belongs.” Dasein “comports” itself predicated on its understanding of
itself and its world. An essential aspect of Dasein’s Being-in-the-World is precisely this sort of
understanding of itself and its world. Dasein, therefore, comports itself in its world in a
conscious and intelligible fashion.

Without this ability to step back and interpret the world and the entities therein as such, it

40 See *Fundamental Concepts*, Part 2, Chapter Four.
41 Ibid., 242.
42 Ibid., 247.
43 Ibid.
44 *Being and Time*, 118.
45 Ibid. “Whenever we let there be an involvement in something with something beforehand [in a world], our doing
so is grounded in our understanding [of that world].”
46 Ibid. “To understand Being-in-the-world belongs to the essential content of its [Dasein’s] understanding of Being”
which understanding of Being is itself essential to Dasein’s very own Being.
is impossible for the animal to care about its existence. Thus, it is impossible for the being of animal to be an issue for it, precisely because there is no “it” (i.e. self) which is concerned with itself and its existence. In which case, the animal is not a Dasein; for Dasein does have its being as an issue for it. Thus, only in the case of human Dasein can there exist a structured environment oriented to serve this issue of Dasein’s being. After all, “if no Dasein exists, no world is ‘there’ either.”

47 So an animal, insofar as it does not exist as Dasein, does not possess a world.

Care and Anxiety

Now we move to consider the phenomena of care and anxiety. As we saw above, concern is a central element in Dasein’s Being-in-the-World. Concern, in turn, reflects the basic mode of care which constitutes Dasein as such. Dasein, in its everyday existence, is deeply and comprehensively concerned with itself. That is, it is concerned with what it will be. Its very existence is structured by its care for this same existence. Because this existence is temporal according to the ecstasies of past, present, and future, then likewise is it the case that Dasein’s existential care pertains to Dasein’s future and the possibilities obtaining in that future.

48 For Dasein, to care is to face the open set of possibilities which it can pursue in becoming what it will be.

However, concurrent with care comes the experience of anxiety. Dasein is anxious about its existence in its world: “that in the face of which one has anxiety is Being-in-the-World as

47 Ibid., 417.
48 We should not think of Dasein as existing fully here and now, like an Aristotelian substance, for which being in time is an accidental modification. For such a substance, it is itself here now; it will likewise be itself at some point, T, in the future. The difference between the here now substance and the substance at time T is accidental. On the other hand, being-in-time is absolutely fundamental to Dasein’s existence. We cannot abstract Dasein from the temporality of its existence and somehow try to analyze it isolated from time.
The world is the source of this anxiety, moreover, precisely because the world, as such, is contingent. Heidegger talks about this contingent world being experienced as a “nothing,” as utterly “insignificant.” In other words, the possibilities and projects of Dasein, the issue of its very Being—as well as the totality of the relationships and equipment which constitutes the world ordered for such Being—are tenuous. This is so because, as we saw, Dasein in caring is also faced with a radical openness. In caring for itself, Dasein must also bear responsibility for what it will be; it must bear responsibility for addressing and responding to that aforesaid openness. To best illustrate this point let us consider briefly an opposite phenomenon. A child born into the guardian caste in Plato’s *Republic* would know that he, too, will become a guardian. He does not need to worry or be anxious over what he wants to be or what he should be. Those questions have already been answered for him because of the circumstances of his birth: his parents, his place of birth, etc. Thus, no anxiety-laden open set of possibilities about his future self confronts him. For Dasein qua caring, however, that anxiety-laden openness is always there in front of it. It has no caste system or anything analogous to relieve it of the responsibility of working on its own being. There is, therefore, a constant recognition that insofar as Dasein itself is the sole agent of this enormous existential task, then this task may be futile or left incomplete. Hence, we see again Dasein’s fundamental mood of anxiety. “The state-of-mind, which can hold open the utter and constant threat to itself arising from Dasein’s ownmost individualized Being, is anxiety.” Dasein’s anxiety is connected to the experience of uncanniness, of “not being-at-home,” insofar as there is no permanent set of guideposts that can

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49 Ibid., 230.
50 Ibid., 231-232.
51 Ibid., 310
govern Dasein becoming what it will be, as was the case for the guardian in the caste system. Dasein finds itself alone and even rootless. Dasein is fundamentally structured by anxiety.

**Authenticity**

However, the question now arises: how exactly does Dasein respond to this radically open, anxiety-laden existence? Our next analysis thus concerns the issue of authenticity, which will illustrate the ways in which Dasein so responds.

To quote Heidegger scholar Richard Wolin: “The ‘call of conscience’ . . . paves the way for authentic decision, thereby elevating Dasein above the fallenness of the They.” But what does it mean for Dasein to respond authentically to this call? Authenticity is akin to own-ness. When talking about authenticity, Heidegger employs the German term *eigentlich*, which comes from the term, *eigen*, which means “own,” as in “one’s own house” or “one’s own car.” So, to be authentic means to own up to something. In English parlance we see this same theme of own-ness. For instance, I can take ownership of this action, meaning that I take responsibility for deciding on which action to perform, I take responsibility for actually performing that action, and I take responsibility for the consequences of that action. As such, the action, considered as a whole, belongs to me. The manner of action, therefore, is almost like a possession. I am the one ultimately who decides on how this action will unfold for me. This is the manner in which I take ownership over actions.

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52 Ibid., 233.
53 Sartre’s existentialism may also help illuminate Heidegger’s ideas on anxiety. Sartre writes about a young man who was trying to interpret various events of his life, to see if they provided clues as to what he should become. Eventually, the young man decided to interpret these events as indicating his vocation as a priest. “For the decipherment of the sign, however, he [the young man] bears the entire responsibility. That is what ‘abandonment’ implies, that we ourselves decide our being. And with this abandonment goes anguish.” Jean Paul Sartre “Existentialism is a Humanism” in *Existentialism from Dostoyevsky to Sartre*, ed. Walter Kaufman, (New York, NY: Meridian Publishing Company, 1989), 298. We are anguished because it is up to us to decide who we will be. 54 Richard Wolin, *The Politics of Being: The Political Thought of Martin Heidegger* (New York, NY: Columbia University Press, 1990), 44.
The phenomenon of authenticity does not only involve my choosing by and from myself; it also can involve disregarding or even opposing others in order to manifest such “own” activity. Dasein, says Heidegger, in its “everyday” manner of existence, is fallen into the ‘they.’ As such, Dasein acts and exists in the manner that anyone does. The locus of responsibility for decision and action, consequently, rests not really with Dasein itself but rather has been “dispersed into the they.” Dasein, in other words, does not exist in, by, and for itself, but instead its actions merely follow from what anyone else would do. Heidegger uses the example of “public transportation” to illustrate this claim, which example is still germane today. On the Metro, for instance, passengers sit quietly, listen to music, read the Express Newspaper, stare at the windows, or just nap. This is what everyone does and, for the most part, no one acts differently. Moreover, no individual commuter deliberately and reflectively chooses this mode; instead, we all do so, without asking, or knowing, or even caring why we do so or whether or not we should. Thus, in the case of the ‘they,’ one exists as fallen into a certain way of being, a “leveled-down” and “average” way of being. Yet just as an accidental slip does not involve direct agency, neither does this fall into the ‘they.’ Existing in the same way as does anyone else indicates that Dasein has failed to choose decisively for its being. In fact, there has been no such

55 Being and Time, 219. The terms “the they” or “they-self,” often lead to confusion. The terms seem to indicate some entities or beings which are external to Dasein and yet duly affect Dasein in its being. Nonetheless, we should look at the actual German term Heidegger employs, i.e. “das Man.” “Das Man” is a neuter term which can mean “one in general,” “anyone,” “someone,” etc. (Cf. Being and Time 296-299 where Heidegger talks about how in our public mode of being, we talk about “someone” dying or the fact that in the future, “one” will die as well.) As “das Man,” Dasein exists, acts, and comports itself in a manner consistent with how anyone else would. Dasein’s sense of the world accords with the normal, average sense. So “the they” refers, ultimately, to the phenomenon of Dasein’s being in the world as being just anyone or one in general. As Heidegger says, when speaking about such a “leveled-off” manner of existence, “the who [of such existence] is the neuter, the “they” [das Man]. (Being and Time, 164). Nevertheless, we will here follow the standard mode and use the term “the they.”

56 Ibid., 167.
57 Ibid., 164.
58 Ibid., 166.
decision for its being at all. It has just ended up that way, as we could say in common English parlance.

Authentic Dasein, however, is an “existentiall modification of the ‘they.’” That is, Dasein, in becoming authentic, disengages from the ‘they’ and the modes of “publicness” and inauthentic, “they-self” existence. The call of conscience, mentioned above, “summons Dasein’s Self from lostness in the ‘they.’” Dasein no longer falls into the ‘they’ manners of being described above. It chooses—in, by, and for itself—and does not allow such decisions (and resulting actions) merely to happen or to be generated ultimately from the ‘they.’ The ultimate ownership of Dasein’s decisions and actions, therefore, rests with Dasein, over and against the ‘they.’ “The resolve toward authentic existence can only be attained by way of surmounting the inertia of the “they.”

Authentic Dasein, consequently, must be decisive and resolute. That is, an authentic Dasein is the one who chooses and stands by the project of his finite existence. Dasein does not waver or undermine itself in this decision. Instead, Dasein becomes more of itself, realizing its ownmost possibilities, with such decisive resolve. “Resoluteness” serves “as authentic Being-one’s-Self.” A potentially interesting historical example of this phenomenon would be Ulysses Grant’s campaign in 1864 against the Confederate forces in Virginia. After Grant lost at the Wilderness and Cold Harbor, battles where the Union suffered very high casualty rates, the Northern public as well as Northern politicians roundly criticized Grant, calling him Grant the “butcher.” Despite this pressure, Grant was resolute and stood by his determination to engage

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59 Ibid., 168.
60 Ibid., 166.
61 Ibid., 319.
63 Being and Time, 344.
Lee continuously over the spring and summer of 1864. Grant stated that “no matter what happens, there will be no turning back.” To be an authentic Dasein, therefore, is to be resolute in choosing one’s course of action, often in opposition to the ‘they.’

We should note, finally, that this issue of authentic choosing and resolving involves Dasein’s very being; it involves an “authentic potentiality-for-Being-one’s-Self.” Authentic Dasein does not merely choose or act authentically; in the final analysis, it exists authentically insofar as it manifests such resolute self-responsibility. An inauthentic manner of existence, on the other hand, would lack such resoluteness.

**Being-onto-Death**

The difference between authentic and inauthentic manners of existence is further highlighted against the backdrop of the phenomenon of death. To begin this discussion on death, however, it is first necessary to talk briefly about the relationship between time and finitude in Heidegger’s thought. For Heidegger, Dasein is temporally constituted by three different modes, past, present, and future. In terms of the past, Heidegger talks about Dasein as “having-been.” Dasein does not merely spontaneously come into existence; instead, its “factual” existence is always conditioned by its past. As such, Dasein has been “thrown” into its current kind of

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65 Ibid., 726.

66 NB. I should clarify here the use of Grant as an example of resolute authenticity. We can today admire Grant for his being resolute in his fight against slavery. In which case, we admire Grant because he was resolute for a noble cause. The nobility of the cause lends weight to the resolute manner in which it is pursued. However, for Heidegger the nobility of the cause is not paramount. In other words, had Heidegger admired Grant, he would have done so not because of the nobility of the cause of the Union forces in the Civil War but rather primarily because Grant was resolute in his way of being during the war. Thus, resoluteness as such is the paramount point here, over and above that for which one resolves himself. We will explore this aspect of Heidegger’s thought in more detail on pages 28 and following.

67 *Being and Time*, 312.

68 Ibid., 432.

69 Ibid., 426.
existence.\footnote{See, for example, ibid., 435. “As thrown, Dasein has . . . been submitted to a world, and exists factically with others.” Put differently: Dasein does not arise out of a vacuum but is duly affected by the conditions which precede it.} Moreover, Dasein’s current kind of temporal existence, its present, if authentic, is characterized as a “moment of vision.”\footnote{Ibid., 398.} That is, the present can be the moment in which Dasein’s “vision” sees its past and resolutely directs itself going forward into its future.\footnote{See ibid., 416. “The horizontal schema of the Present is defined by the in-order-to.” The temporal mode of the present is therefore oriented towards the future.} This, of course, brings us to the final mode, the future. The future is something still to come for Dasein, which it can anticipate and direct itself towards. In this way, Dasein is always “‘ahead-of-itself.’”\footnote{Ibid., 236.} Indeed, Dasein’s very being requires the not-yet of the future. “It is essential to the basic constitution of Dasein that there is constantly something still to be settled’ in the future.”\footnote{Ibid.} The future, as a not-yet nexus of possibilities, thus orients the way in which Dasein exists.

And the central future possibility with which Dasein is concerned is death. “Dying is something which every Dasein must take upon itself.”\footnote{Ibid., 284.} Dasein’s future is necessarily finite and will inevitably terminate in death. This is similar to the fact that Dasein’s past is also finite and necessarily began at birth.\footnote{Ibid., 289.} Thus finite Dasein, in its temporal existence, always faces the possibility of its death. Qua finite, Dasein cannot step outside this temporal horizon which is bracketed by birth and death. “Death is a way to be, which Dasein takes over as soon as it is.”\footnote{Ibid., 291.} As such, Dasein is constantly dying, i.e. always having to confront its own mortality: “Let the term dying stand for the way of Being in which Dasein is towards its death.” Dasein’s temporal
manner of existence, and its very Being-in-the-World, are known by Dasein as inevitably ceasing at its death. Dasein, in short, is always forced to interpret its own death, which interpretation informs Dasein’s manner of existence.\textsuperscript{79} Hence Dasein is a Being-onto-Death. Everything Dasein does, every possibility which it pursues, and every manner in which it tries to exist are all done within this horizon of death. In fact, in the face of death, the aforesaid nexus of future possibilities “comes to an end.”\textsuperscript{80} Everything Dasein is or could be will be annihilated at its death. Those “possibilities . . . are . . . precisely what get taken away from Dasein” at its death.\textsuperscript{81} Dasein is thus always shadowed by its mortality.

Heidegger distinguishes the dying of Dasein from the biological “perishing” of organisms.\textsuperscript{82} The former is cognizant of the possibility of its own death. It recognizes that its entire history (past, present and future) operates within the horizon of death, and that death will ultimately nullify that history. Organisms, however, lack such cognizance and thus lack history. They do not have an abiding sense of having-been, being-present, and being-towards. Thus, their perishing will not end their existences, precisely because they do not exist. That is, they do not possess the basic structures of existence which constitute Dasein. For organisms, there is only the cessation of life, i.e., perishing, which is quite distinct from the death and dying of Dasein.

Nevertheless, Dasein can approach this phenomenon of death in an inauthentic fashion. The inauthentic approach to death means doing so in a public way. Death is experienced as being distant and remote. It requires nothing particular from an individual. “Death is encountered as a well-known event” which “has nothing to do with us”, which is “proximally not ready at hand

\textsuperscript{79} Ibid., 292.
\textsuperscript{80} Ibid., 286.
\textsuperscript{81} Ibid., 288.
\textsuperscript{82} Ibid., 291.
for oneself”, and which “is therefore no threat.” Thus, there is here no ownership of death on the part of particular person, insofar as death is treated as a distant object. The event of Dasein’s death, which should be the “own most potentiality” of his life, is now positioned in a public, generic way, which belongs to nobody in particular.

An authentic appropriation of death would look quite different. Here, one readily accepts that he himself will die. The finality, fear, and uncertainty of this event are not re-interpreted in public terms but are instead kept specific to Dasein and to it alone. One key ingredient of authentic being towards death is the following: death is taken as a constantly present possibility. “It must be understood as a possibility, it must be cultivated as a possibility, and we must put up with it as a possibility.” In other words, we can never annihilate the possibility of death prior to actually dying. Insofar as we are alive, then death is a constant possibility for us. On the other hand, when I face the possibility of being robbed, I can choose to avoid high-crime areas. Thus, I may entirely negate that possibility; there is no likelihood at all now of my being robbed. Death, however, as a possibility, cannot be so negated. In which case, the authentic response is to say the following. “I— not das Man, not ‘anyone,’ not ‘someone,’—will die. I, with all my aspirations, projects, intentions, and ways of being in the world could be destroyed.” And there is no way of avoiding or negating that possibility. It must always be put up with, no matter how uncomfortable or frightening it is to experience that possibility in a direct fashion. Our comportment towards death, if it is to be authentic, must therefore always take into account the ever-present possibility of death and the full consequences of that possibility, i.e. our own annihilation.

83 Ibid., 297.
84 Ibid., 297-299.
85 Ibid., 306.
Possibility and Freedom for Dasein

Heidegger does not think this authentic appropriation of death is morbid; rather, it can also be life-affirming and empowering. “Death is Dasein’s ownmost possibility. Being towards this possibility discloses to Dasein its ownmost potentiality for Being, in which its very Being is an issue. Here . . . Dasein . . . in this distinctive possibility of its own self, has been wrenched away from the ‘they’. ”86 Dasein, that is, faces an event, its own death, which belongs only to it and not to the ‘they’. In anticipating its own death, Dasein is addressing its own potentiality for Being, as distinct from the ‘they.’ And this task “must be taken over by Dasein alone.”87 No one else can ever own up to and anticipate my death. “Death lays claim to it as an individual Dasein” and “individualizes Dasein down to itself.”88 Once Dasein has been thus individualized, it acts in and from itself; it authentically begins to take ownership of its own life. In which case, “Dasein can be authentically itself” insofar as it has confronted “its ownmost potentiality for Being [death]” and subsequently made its own being an issue for it and it alone.89 Authentic Dasein, unlike its inauthentic counterpoint, thus owns up to the possibility of its death in an individual manner which frees this authentic Dasein from being submerged into the ‘they.’

Confronting the inevitable possibility of death in a direct, honest, and authentic way, one can become free, according to Heidegger. This is so because one now is not forced into falling into those possibilities which trap the ‘they’ who does not own up to his death.90 One who tries to avoid owning up to this possibility of death fails to own up to the task of choosing his own

86 Ibid., 307.
87 Ibid.
88 Ibid., 308.
89 Ibid.
90 Ibid. “When, by anticipation, one becomes free for one’s own death, one is liberated from one’s lostness in those possibilities which accidentally thrust themselves upon one” from the ‘they.’
life. That is, he does not own up to and act resolutely upon the full range of possibilities which could have structured his existence had he authentically confronted his own mortality. Instead, he has suffered under “the illusions of the ‘they,’” which allows him the comfort of not having to wrestle with his inevitable death and the responsibility for his own life which attends this confrontation with his mortality.91 However, once death is anticipated and accepted, then one does not flee from it and so limit his range of possibilities out of fear. Like the Benedictine motto to “keep death constantly before your eyes,” Heidegger’s position calls for Dasein to accept totally the inevitability of death. In so doing, Dasein understands better its own finitude. It is struck by being mortal and limited and that it has only a finite set of time and possibilities, etc. But that cognizance of finitude does not render Dasein despondent or inactive. Rather, it can awaken Dasein to the plethora of possibilities which it can pursue in its existence, insofar as it does so authentically, over and against the ‘they.’ Dasein here gains a “freedom towards death.”92 For example, Dasein, grasping its mortality, may be spurred to pursue a different career, rather than go along with the average path which everyone pursues. This possibility is now opened up to Dasein because it has accepted its own death and not tried to flee from it by being absorbed in the ‘they.’ Dasein’s own existence thus opens up as a broad set of possibilities which it can actualize, regardless of their particular standing for the ‘they.’ Within the context of its finitude (death), Dasein is thus free to pursue the possibilities of its being. Dasein, once it has authentically owned up to its death, is thus freed to create his own life project as it sees fit.

*Dasein’s Life Project*

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91 Ibid., 311.
92 Ibid. Emphasis original.
But what exactly is a life-project for Dasein? In terms of Heidegger’s thought, a life-project involves Dasein’s Being-in-the-World, especially in light of the possibility of death (as well the past out of which Dasein is thrown). Dasein, in light of these historical conditions, is, of course, limited. Nonetheless, Dasein can (and in order to be authentic must) choose what to make of the possibilities of its being which exist in this historical context. So authentic Dasein—in, by and for itself—chooses to make the most of its’ historical existence. And this “making the most” involves, as well, structuring a consistent, decisive whole out of the past events and future possibilities within this context. This involves “taking the whole of Dasein in advance in an existentiell manner.”93 In this fashion, authentic Dasein is not some entity existing statically at time T. Instead, authentic Dasein involves the big picture: the entirety of Dasein’s temporal existence, ordered in a consistent fashion by Dasein and according to the possibilities of being which Dasein chose.

Authentic Dasein, therefore, could be seen as an event which encompasses the whole of its temporality, an event shaped not by the arbitrary ‘they’ but rather by Dasein itself. Thus, there is a project of Dasein’s to render itself, over the course of its life, to exist in a certain way. Here, we may recall the discussion on care and concernful dealings, both of which occur relative to this existential project of Dasein structuring its life. Because Dasein cares about its being (and its life-project), Dasein has concernful dealings toward things that ultimately serve this project. Hence, such things are equipment in Dasein’s world, which ultimately exist according to the role they play in this life-project. Resolutely choosing the manner of its existence over the course of its life, especially in the face of the possibility of its death, authentic Dasein therefore is a Being-in-the-World which, in the final analysis, facilitates its own life-project. Dasein’s becoming what

93 Ibid., 309.
it chooses to be is the ultimate reference point for its Being-in-the-World. This life-project thus illuminates the range of meaning or significance which Dasein encounters.

The Question of Value

Before we close this discussion on Heidegger, we should address the issue of value, especially because that issue is so central in Jonas’s response to Heidegger. In its Being-in-the-World, Dasein can be said to discover value, as well as certain grades of value. For Dasein, in constructing a house, a hammer is quite valuable, much more so than other equipment. However, it is not the case that the hammer has value in and of itself. In fact, the hammer is not the sort of thing to either have or not have such value. Its value, rather, lies in its serviceability within the world of Dasein. If the hammer is readily accessible and performs its task of hammering well, then the hammer has value; that is, it is valuable for Dasein. And this sense of value obtains, as well, in other aspects of Dasein’s Being-in-the-World. Dasein cares about its being; it cares about what sort of being it can become within its historical context. (Recall our discussion above on the life-project of Dasein.) Those things which Dasein can employ in this life-project, as well as the opportunities which facilitate this project, are thus valuable. They are valuable to Dasein in realizing its own-most possibilities for Being. Thus, if Dasein’s life-project in a historical context involves becoming a philosopher, then education, which facilitates this project, will be valuable for Dasein.

For the purposes of our forthcoming examination of Jonas, it is also important that we look at Heidegger’s ideas of value relative to organisms in nature. Animals and plants are poor-in-world and their being is not an issue for them. Thus, they are not the sort of beings who discover or ascribe value, precisely because they are not the sort of beings who care in the way
Dasein does (or better yet, the way Dasein is). Insofar as they are not caring Beings-in-the-World, non-Dasein organisms do not encounter value. The question of value is thus irrelevant to them as such. It only becomes relevant if Dasein, in its life-project, interacts with such organisms. In which case, then, Dasein may find them valuable. For example, a domesticated horse on a farm is obviously of value for the life-project of the Dasein of the farmer.

Nonetheless, the value obtains because of Dasein and its life-project. As Heidegger says, “Dasein, as an entity with the possibility of existence, has ontological priority over every other entity.” Non-Dasein organisms, absent such possibility for existence, thus have much less significance than does Dasein. So then Dasein—in its caring Being-in-the-World, done resolutely in light of the possibility of Death, while freely pursuing the ownmost Being which is an issue for it—is the ultimate locus of value.

Part II: Jonas’s Criticism of Heidegger

Now that we have presented some basics of Heidegger’s thought, we turn to examine Jonas’s response to it. Jonas’s critical response centers around two main points: A) Heidegger’s philosophy disregarded organic life and Dasein’s connection to it, and B) Heidegger’s philosophy of Dasein was such that it could embrace Hitler and Nazism. Faced with this situation, Jonas posited his own philosophy of life.

94 Ibid., 62.
95 It is important to note the following points. First, we are presenting here Jonas’s criticism of Heidegger; this is not meant to be an independent criticism of Heidegger. Second, it may be difficult to see always the connection between A and B from above. After all, Kant’s morality as well as some Christian morality seem to “disregard organic life” but neither endorses anything like Nazism. If so, what exactly is Jonas doing here? The aforementioned ordering of A and B in truth is Jonas’s response to Heidegger’s thought. That is, Jonas employs a philosophy of organism and life—which is lacking in Heidegger—to correct the possibility of modern thought embracing Nazism—which is of course not lacking in Heidegger. I thus think it simpler to discuss first Heidegger’s disregard for organic life and
Dasein as Separate from Life

Jonas’s critique of Heidegger begins with Heidegger’s presentation of Dasein as Being-in-the-World. Dasein, as we saw, is cut off from organic life, and thus Dasein is presented in a rather abstract manner which fails to address the living aspect of Dasein’s lived experience. In this fashion, Dasein stands outside the traditional sense of nature. For example, the genus of “animal” is of no importance for Heidegger in his consideration of Dasein, and, in fact, Heidegger criticizes the definition of man as a rational animal. Any sense of normativity stemming from nature is thus irrelevant for Dasein. As we also saw, Dasein, as authentic, exists over and against the ‘they.’ Thus, any sense of normativity which governs Dasein’s authentic existence must originate from Dasein itself. Authentic Dasein does not exist communally with life, nature, or the ‘they.’ Rather, it exists most really by owning up to the possibilities of its own Being and doing so in and though itself. Dasein’s own confrontation with the issue of its Being is thus the standard for its existence.

To understand better this Jonasian idea that Heidegger separates Dasein from nature we should begin with a point of contrast, namely Aristotle’s philosophy. Aristotle wrote of nature as an intrinsic principle of rest and motion.\textsuperscript{96} All natural things have such a principle, while all non-natural things lack such a principle. Aristotle goes further in this examination of natural things:

living things are preeminently natural and, for him, they all possess souls. So the intrinsic
principle of rest and motion seems to equate with the notion of a soul: the principle of life for a
body potentially alive. Now Aristotle does not posit that all living things have the same sort of
soul. Rather, he posits different grades of soul according to the different grades of being. Hence
there is a vegetative soul for plants, a sensitive soul for animals, and a rational soul for humans.
Nonetheless, every living thing shares in the basic reality of performing vegetative functions; the
human soul, though rational, still exercises basic organic operations. In fact, absent such a soul-
functions, nothing, not even a human, would be alive. There is consequently a continuum of
life, which Aristotle addresses when discussing nature and souls. Humans, even qua rational, do
not stand outside the community of organic nature.

Dasein, however, has no such nature. The entities it encounters are of a vastly different
sort than it. Even the phenomenon of death (and the fear attendant to it) is not something Dasein
shares with other entities, because, as we saw, their being is not an issue for them and hence they
do not die, properly speaking. They have no abiding sense of self which faces annihilation with
the inevitable prospect of death. They do not have, therefore, the range of possibilities in the face
of death, as does Dasein. Thus, they cannot authentically own up to their history, precisely
because they have no history. Dasein stands almost transcendent in the fundamental modes of its
being, all of which pertain to it and it alone. Dasein, unlike human beings as understood by
Aristotle (and others), therefore has no community of beings to which it belongs. There is no
greater sense of nature or order in which Dasein finds its place. From this perspective, Dasein is
structurally alone.

Random House, 1941), 412B.
98 See Ibid., Books Two and Three.
Dasein as Homeless

It is for this reason, then, that Jonas thinks it makes perfect sense for Heidegger to talk about the basic mode of anxiety and the mood of being unhomelike which characterizes this anxiety. Dasein, on this interpretation, is structurally disconnected: “his consciousness only makes him a foreigner in the world, and every act of true reflection tells of his stark foreignness.” The one reality to which Dasein is deeply bound is its own Being and the possibilities for that Being. Everything else Dasein encounters is structurally different from it, not relatable as such. (The story of Adam in chapter two of the book of Genesis provides a good analogy: prior to the coming of Eve, Adam experiences an “original solitude,” lacking another someone with whom he can share himself and his life.) Dasein’s world, after all, is populated by entities which do not share the same sort of being as Dasein. Such entities serve as equipment for Dasein; Dasein relates to them in terms of their usability. They do not relate to Dasein as equals; they do not form a community with Dasein; there is here no I-Thou connection of Being-with. What Dasein encounters in its world, therefore, is fundamentally foreign to it, accessible in terms of its serviceability and knowledge, but very distinct in terms of its being.

101 A further point should be made here about Jonas’s criticisms of Heidegger’s thought. Heidegger, after all, does discuss the phenomenon of Being-Together (mit-sein). Dasein, that is, is with others in the very structure of its existence. Thus, it would seem to be that case that Dasein, insofar as it exists alongside others, is not fundamentally alone. Does this undermine Jonas’s critique of the structural solitude of Dasein? Jonas, I think, would respond by addressing two points. First, the Being-Together which Dasein experiences is not the deep interpersonal connection of an I-Thou relation but rather more of a state of ordinary co-existence. We talk together, we share the news together, we like the same TV shows together, yet our bond likely does not extend into a lasting, meaningful friendship (such as the friendship of virtue as Aristotle described). I thus work out my own existence by myself, answering my own call of conscience for the possibilities of my own life-project. In that most important task of my existence, I am structurally alone. Second, Jonas could perhaps draw the following analogy to illustrate the solitude of Dasein and the otherness of what it encounters. Suppose a group of astronauts who become stranded on an alien planet in another galaxy. Nothing there seems in any way hospitable and in fact is likely dangerous or deadly (such as, for instance, may be the case in a Ridley Scott film). The astronauts certainly are at not at home in such a place
Jonas thus sees Dasein as a contemporary reiteration of the denunciation of nature found in much of modern philosophy (as well as in Gnosticism). According to this reading, man (Dasein) is ultimately alone in the cosmos, disconnected from his body, the universe and God himself. Man, as such, is fundamentally homeless. He is not at home in his bodily nature and thus not at home in his organic existence. Nor is he at home in the universe, in a knowable, friendly cosmos whose laws are ultimately knowable and helpful for his well-being. The Gnostic man (as well as his reiterations in modern and existential philosophy) confronts an inhospitable universe, one which is not ordered for his flourishing and well-being. He has no sense of caring for life or for the universe, since he is now “estranged from the community of being.”

“Gone is the cosmos with whose immanent logos man can feel kinship, gone the order of the whole in which man has his place.” Instead, “man is alone with himself.”

*Dasein’s Non-Care for Nature*

As a result of this solitude, man (or his Hedeggerian iteration as Dasein), on Jonas’s reading, does not bear responsibility for the world he inhabits. This indifferent (perhaps even hostile) universe no longer offers a potential “sanction to possible human purposes” and actions. Nothing in reality, therefore, acts as an objective source of value, which can guide his actions.

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103 Ibid.
104 Ibid., 215.
105 Ibid.
Being-in-the-World. Rather, values “are posited as feats of valuation.”

106 Homeless man is thus no longer guided by norms or laws of the universe, no longer ethically responsible for the way he acts towards the things of this universe. Because “values are not beheld in vision as [part of objective] being” but are merely “functions of the will,” then man is now not bound by any external set of norms or laws. 107 Man, freed from nature and the universe, can make of himself what he will. Therefore, according to Jonas’s view on existentialism, there is no law (nomos) issuing from nature which regulates man’s Being-in-the-World.

Man (Dasein) is disconnected from nature. Organic life, having a very different sort of being than Dasein, has no real commonality with Dasein (e.g., for natural things, their being is not an issue for it.) In which case, de-natured Dasein serves as its only source of value and normativity, insofar as it is called to pursue authentically its own possibilities for Being. Nature, as such, is not a per se object of value which places ethical demands on Dasein nor which can act as a moral guide for it. In this way, for example, nature can be seen as something with instrumental value. Put in Kantian terms: nature is not valuable as an end in itself, which must be respected as such. Having no existence as a self (or Dasein), nature cannot qualify as an end in itself. Thus, it would be more akin to an instrument and hence the reason for its instrumental value. In which case, Dasein encounters nature as an instrument. No pressing obligation can arise from items such as these, and thus nature places on Dasein no ethical demands in its being-with-nature. Dasein can see nature as purposeless, mere equipment. If “nature” is “purposeless,” then it cannot “provide” norms governing humans and their action. 109 According to Jonas, such is the logical outcome of Heidegger’s philosophy of the de-natured, non-organic Dasein.

106 Ibid.
107 Ibid.
108 Ibid., 232.
109 Ibid., 215.
Authenticity as Moral Guide

Nonetheless, man is not in a total ethical void. After all, as we saw earlier, Dasein is confronted with a call of conscience. Some sense of normativity thus obtains in Dasein’s Being-in-the-World, some standards which could be said to govern what Dasein should or should not do. Yet, since nature or the universe (let alone God) cannot provide these ostensible norms, they must come from Dasein itself. Here we can refer back to Heidegger’s discussion on authenticity. Dasein is called to actualize “the project of [its] ‘existence’” in, by, and through itself.110 In other words, Dasein, if it responds deeply to the call of conscience, cannot become absorbed into the ‘they.’ Instead, acting over and against the ‘they,’ Dasein can direct its “self-projective Being towards its ownmost potentiality-for-Being.”111 This authentic manner of existence is most manifest in Dasein’s Being- unto-Death. But this authentic Being- unto-Death is not governed by external standards. In describing authentic Being- unto-Death, Heidegger states: “we have . . . let Dasein itself project itself upon this possibility [of death], without holding up to Dasein an ideal of existence . . . or forcing any such ideal upon it ‘from without.’”112 Resolute authenticity thus becomes the sole moral guidepost for Dasein.

According to Jonas, however, resolute authenticity can engender serious ethical problems. “Resoluteness as such, not for what or against what resolves oneself, but that one resolves oneself becomes the authentic signature of authentic Dasein.”113 Jonas then posits that

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110 Being and Time, 231.
111 Ibid., 236.
112 Ibid., 311, emphasis mine.
there is an “absolute formalism [in] his [Heidegger’s] philosophy of decision.”

This “philosophy of decision” is formal because the main concern here is how one chooses (and subsequently acts), regardless of what one chooses (and the subsequent activity toward realizing that choice). “It was crucial for human beings to choose, but what choices they should make was not stated [by Heidegger].”

A resolute choice for X, as well as a resolute carrying out of that choice, is therefore potentially just as authentic as a resolute choice for Y and a resolute carrying out of that choice. Since X and Y are mere variables, the primacy of judging whether a decision is authentic rests on the way in which the decision is performed. And since Dasein, as authentic, acts over and against the ‘they’ (as well as nature, towards which it has no kinship), then there is no social (or natural) milieu guiding Dasein’s decisions either. Such decisions are purely formal. Therefore, Dasein’s authentic owning up to its history and possibilities for Being amounts to the following: a resolute determination to take control over one’s past and one’s future, to become, in other words, the owner of one’s life-project. The how supersedes the what-is-it-for of the decision and action.

Heidegger’s Nazism

Here, says Jonas, lies the key to understanding Heidegger’s Nazism. In Jonas’s opinion, Heidegger’s movement to Nazism was not a personal failing disconnected from his philosophy. Nor was it a temporary choice in which Heidegger merely followed the shifting winds of society. Rather, says Jonas, Heidegger became a Nazi because his philosophy led him to do so. In the face of Hitler and Nazism, “Heidegger’s thought” did not “provide a norm” of response to such

114 Ibid., 202.
115 Jonas, Mortality and Morality, 47.
influences. After all, as we saw above, Heidegger’s philosophy of authenticity was essentially formless, concerned more with the “how” than the “what” of decision.

But the connection between Nazism and Heidegger was deeper still, according to Jonas. Hitler had manifested an “occurrence of unveiling . . . [and] a call of being all right.” In this sense, Hitler was performing the task of authenticity; Hitler was acting “how” one should act in being authentic. Hitler could be said, as well, to be answering the “call of conscience”, which call impels Dasein into authentic existence. And Hitler was doing so with “resolution”, not merely for himself and his own party, but for the German people as a whole. Hitler was helping Germany own up to its past and take total responsibility for its future; Hitler’s was a “fade-laden” determination of the Aryan race. “One need only jettison the . . . individualistic basis for decision . . . in Being and Time . . . and replace it with a ‘collectivist’ orientation in which the ‘national community’ . . . provides the basis for decision, and one arrives without difficulty at the political course chosen by Heidegger in 1933.” Thus, says Jonas, it made perfect sense for Heidegger to support Hitler.

In order to grasp better Jonas’s understanding of Heidegger, we should examine some of Heidegger’s own words on Nazism and Hitler. In one of his more notorious addresses to German students, Heidegger stated: “Let not propositions and ‘ideas’ be the rules of your Being. The Führer alone is the present and future German reality. Learn to know ever more deeply: from now on, every single thing demands decision and every action responsibility. Heil Hitler!”

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116 The Phenomenon of Life, 247.
117 Ibid.
118 Ibid.
119 Ibid.
Here, we can see with crystal clarity why Jonas offered such criticism against Heidegger’s philosophy. Heidegger’s thoughts on authentic resolve for Dasein are being used in direct defense of Hitler. The Führer, with his resolute “decisions” and “responsibility”, would effect “the total transformation of . . . German Existence.” The Nazis, under the leadership of Hitler, would thus bring about the “will of self-responsibility” for Germany and so “preserve the truth and greatness of its destiny.” In short, it seems as though on Heidegger’s interpretation, Hitler’s Nazism would exercise profound and strong authenticity for the sake of the Dasein of Germany. Hitler and the Nazi party were, consequently, the logical objects of Heidegger’s support, given his philosophy of resolute, self-responsible Dasein.

Thus, says Jonas, Heidegger’s philosophy tended inexorably towards “the abyss,” in this case the abyss of Nazi Germany. Dasein, divorced from nature and its norms, was guided only by its formless, resolute decisions and actions. In fact, this nature offered nothing of “value” or meaning in itself; Dasein related to it as it would any piece of equipment, which equipment was substitutable and inherently purposeless. Dasein, in other words, confronts a void, a nihilistic situation as it were. Yet this authentic Dasein, standing over and above an “indifferent” life, also grasped the contingency of itself and its world (recall our discussion on the anxiety of Dasein and its confrontation with the nothing). In this situation, “only man [Dasein] cares, in his finitude facing nothing but death, alone with his contingency and the objective meaninglessness of his projected meanings.”

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122 Ibid., 101.
123 Ibid., 105.
124 Ibid., 104.
125 The Phenomenon of Life, 247.
126 Ibid., 215.
127 Ibid.
128 Ibid., 233.
indifferent.” And since “there is no point in caring for what” lies beyond its own, limited, and contingent Being-in-the-World, then Dasein ought to follow the ancient Gnostic maxim to “‘eat and drink for tomorrow we die.’” Dasein is here concerned only with its resolute authenticity in the face of its death. Thus, Dasein, according to Jonas, can easily fall into forms of nihilism, including Nazism, as did Heidegger himself.

Re-assessing Heidegger and the Question of Value

In the face of his former mentor’s embrace of Nazism, Jonas’s “philosophy [is] marked . . . by [his] renunciation of Heidegger’s existentialism in favor of [a] philosophy of life.” Yet in doing so, Jonas, as we will see, employs some of Heidegger’s own concepts. By expanding Heidegger’s analysis to include organic life, Jonas thus formulates a philosophy which can articulate the ground for objective value in reality. By doing so, Jonas hopes to offer some philosophical rebuttal against the possibility of any new Hitlers or Nazi Germanys, overcoming the “shame” Heidegger brought to philosophy with his own comprehensive Ethic for a Technological Age. In other words, Jonas, through an examination of life, wants to find some

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129 Ibid.
130 Ibid., 234.
131 A certain amount of clarification is required on this last point. As was even noted in The Big Lebowski: “the tenets of National Socialism contained, at least, an ethos” of sorts. Nazism, in fact, did embrace some strong sense of value: the Aryan race was very valuable; it was very valuable for the German people to have “Lebensraum”, etc. So in seeing Nazism as akin to nihilism, Jonas is making a claim about the fact that Nazism embraced and carried out the most horrendous devaluation of humanity heretofore promulgated, namely the Holocaust. In essence, Jonas thinks that Nazism (similar to Heidegger’s philosophy), does not care at all about humanity or the world in general. For the Nazi, including Heidegger, nothing really matters except what matters for him as a German Nazi. So this worldview was nihilistic in that it placed no meaning or weight on what lay beyond the orbit of its “own-most” scope of care and possibility. Such is the reason why Jonas can talk of Nazism and nihilism together.
133 The Phenomenon of Life, 247.
good in itself, which can ground objective value in reality and avoid the ethical nihilism into which Dasein descended.

After all, disconnected Dasein had no such real ground for value and could thus fall into Nazism, as did Heidegger himself. The existential analysis of Dasein, therefore, may ostensibly be value-neutral, but according to Jonas it ends up potentially devaluing all forms of life, including the human (such as in the Holocaust, in which Jonas’s mother died). Jonas thinks it vitally important to establish some philosophy of life on which to base an ethical understanding of value. Interestingly enough, he also thinks that the most helpful manner in which to interpret life lies within that same existential analysis we have just seem him critique. Jonas wants to examine life through an existential lens, in order to understand better a basis for objective value in reality. To this philosophy of life—especially as marked by a reinterpretation of Heidegger’s thought—we now turn.

Part III: Existential Interpretation of Biological Facts

In his response to Heidegger, Jonas makes use of some of the central ideas of his former teacher’s existential philosophy. Unlike Heidegger, however, Jonas extends these concepts to all organic life, not merely Dasein. Jonas’s philosophy of life begins with a phenomenological analysis of organisms and then proceeds to an ontological understanding of such organisms. In like manner, we will start with Jonas’s phenomenological analysis and then examine the existential repercussions of this analysis.
Metabolism

One central aspect of Jonas’s philosophy of organism is his discussion on metabolism. In metabolism, an organism takes in matter from the world outside of it and processes that matter so that it becomes part of the organism itself. Jonas calls metabolism “the exchange of matter with its surroundings.” In this way, the organism engages constantly with the reality external to it, obtaining what it needs in order to survive. And likewise does the organism excrete waste material from itself once it has been used. Speaking more accurately, it is the cells of the organism which directly partake of this metabolic process. “All cells depend on the same type of metabolic reactions . . . to extract energy from the environment.” Nonetheless, “all organisms, from the simplest bacteria to humans, consist of one or more cells.” At a basic level, all organisms are metabolic, making metabolism a defining feature of organisms. In fact, Jonas’s refers to the “living body [of an organism]” as “a ‘metabolizing system.’” The “system” of the living body of the organism, in other words, is continuously interacting with its environment, taking nutrition-energy and “converting it to work” There is here a “perpetual turnover of its [the organism’s] constituents.”

Now viewed from this cursory perspective, metabolism looks quite akin to the “‘inflow and outflow’” of a machine. A machine, say a car, requires fuel in order to run; likewise, the car emits CO2 once the fuel has been used. In which case, we see an “inflow” of fuel and an

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134 Ibid., 75.
136 Ibid.
137 The Phenomenon of Life, 76.
138 The Genetics of Original Sin, 7.
139 The Phenomenon of Life, 82.
140 Ibid., 76.
“outflow” of waste, all of which enables the machine to operate. Does not the “inflow” of nutrition and the “outflow” of excrement serve the same function for the organism? Is not the organism just a more complex “inflow” and “outflow” machine? Jonas responds with a definite no to both questions. A machine’s parts remain intact throughout the inflow-outflow process; “their physical identity is clearly a matter apart” from the inflow/outflow process.\textsuperscript{141} In fact, the machine as a whole constituted by such parts “exists as just the same when there is no [inflow-outflow process] at all; it is then the same machine at a standstill.”\textsuperscript{142} Organisms, however, are quite different: their very parts are precisely what is exchanged in the inflow-outflow of metabolism.\textsuperscript{143} For example, the “atomic parts” in an amoeba today are not the same parts which the amoeba possessed in the past.\textsuperscript{144} Those parts have deteriorated and new ones have come in their place. Eventually, moreover, the amoeba will possess a set of parts entirely different from those it previously had.\textsuperscript{145} Yet this constant changing of elements in the organism with matter from outside of it does not cause the organism to change its identity. No biologist, says Jonas, who analyzes an amoeba over time, would “take this evidence [of constantly changing parts] to mean that he is not dealing with the same organic individual.”\textsuperscript{146} And this interchange of parts continues throughout the entire life of the organism. In fact, were the interchange of matter ever to cease, then organism as such would likewise cease to exist.\textsuperscript{147} As Jonas is fond of saying, “the being of the organism is its own doing.”\textsuperscript{148} Thus, the metabolic organism, with its constant and

\textsuperscript{141} Ibid.
\textsuperscript{142} Ibid.
\textsuperscript{143} Ibid.
\textsuperscript{145} Ibid., 192.
\textsuperscript{146} Ibid.
\textsuperscript{147} Ibid. “With the same ‘inventory’ of parts after a long enough interval, [the biologist] would judge that the body in question . . . has ceased to be alive.”
\textsuperscript{148} See, for example, \textit{Mortality and Morality}, 88: “Our opening observation is that organisms are entities whose being is their own doing.”
necessary “exchange of matter with its surroundings,” is a different sort of being altogether from a machine.\textsuperscript{149}

\textsuperscript{149} See Phenomenon of Life, 76. When speaking of the possibility of seeing a metabolic organism as being like a machine, Jonas states the following. “Metabolism thus is the constant becoming of the machine itself—and this becoming itself is a performance of the machine: but for such performance there is no analogue in the world of machines.” In other words, a metabolic organism, qua metabolic, cannot be reduced to a machine but is something else entirely.

Nevertheless, this discussion on organic parts and wholes, especially as compared to machine parts and wholes, requires further clarification. One can grant Jonas’s position that in the case of the amoeba there is a constant “exchange of” its material parts and that no parts remain constant but could also deny that such a position holds for other organisms and their parts. For example, the legs of a human being or a dog or the bark of a tree do not, it seems, undergo this “exchange of matter” process. I do not get a new leg or arm (or even heart or lungs) over the course of my life. I may have new cells and molecules in me, but I do not have new limbs or organs. Those appear to have remained constant. In which case, Jonas’s analysis is limited to basic life forms only, such as cells, as we noted above.

However, I think that Jonas’s position is much more tenable than it appears in the previous critique. What, exactly, does it mean for me to say that I have the same heart or leg as I did twenty years ago? Both my leg and my heart have gotten bigger and so have certainly gained (and presumably lost) much of the material composition they possessed twenty years ago. The cells of the heart and the leg, in other words, are involved in the metabolic exchange of matter. The heart and legs do not have the same spatial qualities which they used to possess, either. So a short answer to the previous question is the following: my heart and leg are the same insofar as “they” perform the same function. Put better: insofar as the functions of locomotion and blood-circulation remain constant and healthy for me, then likewise can I talk about the sameness of the body parts which perform such functions. After all, organism derives from the Greek órganon, meaning tool or implement. The parts of the organism are thus akin to organs or tools. And as Heidegger, Jonas’s teacher would say, the tool is such based on the work it performs in the world of Dasein. Similarly, the organ (or body part) is such based on the work it does for the organism as a whole. Thus the continuity and stability of that work being done, even throughout the aforementioned “exchange of matter”, are what we ultimately refer to when talking about the continuity of the relevant body parts, such as legs and hearts. That is, we’re pointing to the fact that there has been an uninterrupted functioning of locomotion (or at least locomotive ability) and blood circulation.

I should also say a brief word on things like heart transplants and artificial limbs, as well as the loss of body parts. Obviously, when someone receives a new heart via transplant, he has lost one body part and gained a corresponding new one. A similar case seems to apply with artificial limbs, granting, of course, that they are actually limbs. Moreover, we see something akin to this in the phenomenon of losing body parts, e.g. losing a finger, an arm, etc. In these and in similar cases the essential point is that something drastic and quite noticeable has occurred relative to certain body parts, either through mere loss or loss and gain. There is an abrupt and decisive break in the seeming continuity of our possessing organic parts. Relative to such situations, consequently, when I talk about possessing the same body part over a long period of time, I refer to the fact that I have not experienced a drastic loss or gain for that body part.

To sum up then: we do not normally experience our larger body parts as undergoing metabolic “exchange of matter.” In fact, we experience such parts as continuous over time. Nonetheless, such continuity of parts essentially boils down to one of two things: either (A) the continuity of an organic function, such as locomotion or (B) the absence of a drastic loss, such as with a heart transplant. In neither A nor B, however, is it the case that the body part considered as that exact material entity continues to exist with self-same identity over time. As we also saw above, the organic parts like heart and leg are themselves, at least on a cellular level, involved in metabolism. The continuous “exchange of matter” pertains to these larger organic parts, albeit on a more subtle, non-experiential level. (I.e. there is a loss and renewal of matter in the heart and the leg, although we may not notice it or consider it at all). In which case, Jonas’s position on metabolism remains strong even after the critique involving larger organic parts, such as hearts and limbs.
So on Jonas’s reading, organisms, with their basic property of metabolism, are dynamic entities, constantly active in their environment so as to stay alive. Their identity is not dependent on the self-same continuity of matter over time, because such matter is constantly changing for them. As such, organisms are holistic entities, over and above their material parts (we will shortly examine that idea in greater detail).

Nonetheless, Jonas is not merely offering an analysis of the biological facts as such. He wants, as well, to explore the metaphysical import of such facts. Hence, we now turn to see Jonas’s existential interpretation of life which stems from this aforesaid analysis.

*Freedom and Necessity*

Within Jonas’s ontology, life is presented as fundamentally different from non-living entities. Matter, as such, is not on the same ontological level as life. Jonas, in fact, says that the coming to be of the first organisms marked “an ontological revolution in the history of matter.”

But what renders life so ontologically revolutionary? Jonas’s answer is rather striking: freedom. For Jonas, freedom is the property par excellence of life: all organisms possess some degree of freedom and no non-organisms possess any degree of freedom.

Thus, pre-organic (or non-organic) matter is essentially different from organic matter, because the former is totally determined whereas the latter is at least partially free.

Nonetheless, more we need to say more about the determinate nature of in-organic matter. Jonas’s example is an atom, considered as the basic material particle and building block of reality. How could we ever ascertain that a particular atom has “survived” over a certain period of time? We can know this, says Jonas, if the atom has been involved in a perceptible path.

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151 Ibid, 3. See also *Mortality and Morality*, 61.
of motion through space and time. Hence, its existence is “mere remaining . . . and in remaining it is successively ‘identical’ by no other principle than that of the continuity . . . of time and space.” 152 As Jonas says a few lines later: “In purely physical description, no more than continuous presence in [space and time] . . . is assumed (but no less can be assumed) for the ‘sameness’ of an entity.” 153 In other words: if from time and space A until time and space B we see a continuous remaining of the self-same material particle, the atom, then we can ascertain that the atom still exists. Remaining self-same with its matter is the key to the continued existence of an atom. 154

This type of existence obtains in the case of larger inanimate matter as well. Consider the case of a rock, and consider, as well, what occurs if the basic material parts of the rock degenerate. As the rock loses such parts, it begins to cease being this rock. Eventually, perhaps, the rock changes into sand. In any case, the rock needs these particular physical parts to stay within it in order for the rock to be a rock at all. The rock, as such, is necessarily tied to these particular particles of matter. “Its identity, then as . . . this stone . . . rests on the relative perseverance of the aggregation and is in the last resort reducible to the immediate identities of the component parts.” 155

152 The Phenomenon of Life, 3. See also Philosophical Essays, 189-191.
153 The Phenomenon of Life, 3.
154 Jonas, when talking about atoms, was discussing them in a more philosophical rather than scientific way. That is, he was discussing an atom as basic physical unit, much the way that Democritus imagined. As such, Jonas was not taking into account the perspective of physics that even atoms have parts such as protons and electrons and that even more fundamental units such as quarks combine to compose these atoms.
155 Ibid., 79. A further note should be added for the sake of clarification. Suppose a car with a flat tire, which tire is then changed out and replaced. An essential car part has thus been lost and a new one put in its stead. Yet we do not think that such part replacement, no matter how essential the parts may be, in any way makes this a new car. It is the same car, albeit with a new tire. But does Jonas allow for this common sense view? After all, his discussion on rocks equated part loss with identity loss. Would the same hold for his view of cars (and artifacts in general)? In response, we see that for Jonas, the being (or identity) of an artifact is tied up with the purpose it carries out. Hence the infamous ship of Theses is one, particular thing only because of its functioning according to the designs of its makers and users. Its ontological status hinges entirely on its fulfilling the plans made for it. The loss or gain of parts are superfluous to the issue of its being or identity. Thus, the car with a new tire would be, for Jonas, still the same car insofar as it continues to carry out the purposes given to it in its manufacture and use.
That said, let us return to Jonas’s discussion on metabolic organisms and its metaphysical implications. When Jonas ascribes freedom to the being of organisms, he is indicating that organisms are not tied necessarily to any particular matter. A cell, in order to be this same cell, does not require the same exact individual amino acid to be in it, even though the cell may require the same type of amino acids in order to survive. This “freedom” in regards to matter extends throughout all forms of life. A tree may require water for its survival, but it does not require that the water currently in it remain there for the duration of its existence. In fact, were that to occur, then the tree would likely begin to rot and die. Similarly, a cat needs to consume food, but the food (matter) it takes in must then be excreted in order for the cat to survive. And the same holds true for human nutrition as well. There is thus a separation, on the part of organisms, from immediate intertwinement with matter. The “opening of a new horizon of freedom” occurred when, “by means of metabolism,” organisms did not have “immediate identity with matter.” Metabolizing organisms, with their constant interchange of matter, are therefore not bound to particular matter as such.

Furthermore, there is an ascending scale of freedom concurrent with the gradation of higher life forms. “The development and increase of this . . . freedom constitutes the principle of all progress in the evolution of life” towards new types of organisms. For plants, of course, this freedom consists primarily in freedom from identification with immediate matter. With animals, moreover, this freedom consists not only in such basic organic freedom but also in the freedom of movement. Unlike a plant, an animal can move around in its environment, traversing from one place to the next. Thus, unlike the plant, it is free from being bound up with a particular place. Furthermore, the freedom of movement for the animal is connected to its powers of

156 Ibid., 81.
157 Mortality and Morality, 66.
“perception and feeling.” That is, the animal exercises its free motion because it perceives some object which, in turn, triggers some emotional reaction in the animal, often desire or aversion. Likewise, the animal is free with regard to how it moves: slowly or quickly, directly or indirectly, continuously or intermittently. As such, the animal is not like a thrown ball which must follow the path of motion prescribed for it according to the force and trajectory of the way in which it was thrown. The animal can exercise its own manner of motion, as well as when and how to begin or arrest it. The perceiving and feeling animal thus possesses a level of mobile freedom beyond the freedom of plants.

With human organisms, this increase of freedom becomes more pronounced. Not only do humans possess all of the features of plant and animal freedom, they alone possess the capacity for making pictures which capacity, in turn, indicates a higher level of freedom. Here, Jonas talks about the phenomenology of art and images. Take, for example, a painting of a mountain done by an artist. Given his power of memory, the painter need not be in the direct proximity of the mountain. He is freely able to ponder the mountain even when spatially and temporally removed from it. Not only that, he is freely able to decide how to ponder it; in other words, his memory is not driven by instinct, but rather his memory is connected to his capacity to appreciate and understand the mountain and his experience of it. In any case, he has the mental freedom to decide what the mountain means for him. He can, says Jonas, grasp an “eidos” of the mountain. So the artist—free from direct immediacy with the mountain and free

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158 Ibid., 70. See also The Phenomenon of Life, Fourth Essay: “To Move and to Feel: On the Animal Soul.” See as well, Philosophical Essays, 199-205.
159 See The Phenomenon of Life, Fourth Essay: “To Move and to Feel: On the Animal Soul.”
160 To be clear: this is the freedom of self-determination, not the freedom of choice.
161 There is, moreover, a limited analogue in the case of plants. Plants can “direct” where their roots grow, how far they extend, how large their leaves become, etc. Such motion of growth originates in the organism, not in forces beyond or outside of it. Nonetheless, this growth for the plant necessarily occurs in one and only one place. Hence we see the limitation of the analogy.
162 The Phenomenon of Life, 172.
from instinct-driven memory—renders a painting based on this eidetic understanding. And in this process we note even more exercise of freedom: the artist is free in how he represents the mountain. He can represent it in an abstract or a more realistic form, but in either case he is free to choose who to depict the mountain.\textsuperscript{163} Finally, this sort of “eidetic” image-making likewise obtains in the case of language. Language is a “symbolic duplication of nature by names.”\textsuperscript{164} And just as there can be a universal appreciation of an image, so too are words universalized, rendering humans able to grasp a universal “identity over and above the particulars” in our “apprehension, imagination, and discourse.”\textsuperscript{165} In sum: human beings, with our image-making, such as art and language, are free to know and understand the world, liberated from being immediately involved in it, while also able to ponder and grasp the world in a variety of ways.

Such is an overview of the grades of organic freedom. Nevertheless, this basic freedom is coincidental with necessity. In fact, Jonas calls it a “needful freedom.”\textsuperscript{166} The metabolizing organism is free from this particular matter precisely because it needs to take in additional and different matter. The organism’s ability to “change its matter” is in fact “a ‘must, since its [the organism’s] execution is identical with its being.”\textsuperscript{167} The organism needs to continuously metabolize in order to survive. “Once it really becomes the same with the sameness of its material contents . . . it ceases to live.”\textsuperscript{168} Absent the constant intake and output of matter there is no organism. For instance, a cat which fails to take in matter as food will perish. Yet likewise will it perish if it fails to excrete the consumed matter. The cat, although free from identification

\textsuperscript{163} Ibid., 172. “The freedom that chooses to render a likeness may as well choose to depart from it.” In fact, there is an “infinite variation . . . of possible” modes of representing the mountain.
\textsuperscript{164} Ibid. 173.
\textsuperscript{165} Ibid., 173: “The generality of the name is the generality of the image.”
\textsuperscript{166} Ibid, 80.
\textsuperscript{167} Ibid. 83.
\textsuperscript{168} Ibid., 76.
with such matter, must still take in and excrete such matter in order to exist at all. The freedom of the organism with respect to matter is a qualified freedom. And Jonas himself says as much in the following. “The basic freedom of organism was found to consist in a certain independence of form with respect to matter.”\textsuperscript{169} Necessity constantly complements organic freedom.

And this “necessity . . . correlative” to freedom, “adheres to it [freedom] inseparably . . . and recurs as its intensified shadow at each stage of its ascent to higher degrees of independence.”\textsuperscript{170} That is, the more ontological capacities a thing has, the more it is required to employ them in order to survive. So, the plant is required to collect nourishment and metabolize in its immediate environment. An animal, however, equipped with the freedom of movement, must exercise that freedom in order to survive. A squirrel which remains stationary will soon perish, either from lack of food or at the hands of a predator. Likewise, we see something similar with humans. They, like animals, must exercise the freedom of mobility, but they also must exercise their cognitive capacities (described in the previous paragraph). If humans did not communicate with each other, we would greatly struggle to survive, since we would not be able to express our needs and desires. With organic freedom comes necessity; the “‘can’ [of freedom] becomes ‘must’ since it is a question of being, and being is what life is all about.”\textsuperscript{171}

\textit{Being and Nonbeing}

This quotation segues well into the next topic: the basic existential polarity of \textit{being} and \textit{non-being} which structures organic life, according to Jonas. Jonas is adamant that this polarity is central in any existential interpretation of biological facts: “that life is mortal may be its basic

\textsuperscript{169} Ibid, emphasis mine.
\textsuperscript{170} \textit{Mortality and Morality}, 136.
\textsuperscript{171}Ibid., 68
self-contradiction, but it belongs to its nature and cannot be separated from it even in thought.”

In other words, to consider an organism as such at all, one must likewise consider its mortality.

And such mortality, in turn, informs much of how the organism exists. The organism—insofar as it is “unstable, precarious, finite, and in intimate company with death”—thus represents a novel type of entity in the world, over and above mere matter. Here, “nonbeing entered the world as an alternative to being.” We can think here of the conservation of mass principle: in a closed system, matter (or energy) cannot be created or destroyed. Such matter can be arranged and positioned (e.g., into rocks in the ocean), then re-arranged and re-positioned (into sand on a beach), and later return to their original arrangement and position, but throughout this whole process, the matter itself, at a basic level, remains invariant and stable. So the enduring, always-there matter did not really undergo existence or non-existence. In which case, the coming of organisms was also the advent of “the opposition between ‘being’ and ‘nonbeing.’”

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172 The Phenomenon of Life, 5.
173 Ibid.
174 Mortality and Morality, 61.
175 Ibid.
176 Cf. Peter Van Inwagen’s Material Beings (Ithaca, NY: Cornell University Press, 1990) for a good discussion on how things like rocks really just are basic matter arranged “rock-wise.”
177 Mortality and Morality, 61. Further clarification is called for on this point that Jonas makes. After all, rocks and rock formations, such as mountains, do seem to come into and out of existence. Planets seems to do the same, even prior to the advent of life. Thus, how can Jonas talk about non-being as entering the world only with the advent of life? In defense of Jonas, I think we should say that a new order or dimension of being—one much more precarious and tenuous, more systematically transcendent of its material composition, and one more substantially integrated and unified—appeared with the advent of life. The ontological integration and unity of living things, therefore, represents a new type of being, whose integration and unity is much less ascribable to mere matter. Thus, perhaps Jonas should have said the following. It is not the case that absolutely speaking non-being entered the world with the advent of life. After all, rocks, mountains, planets, etc. had come to be and ceased to be prior to such life. However, non-being as a constant, direct possibility against the tenuous but still substantially integrated existence of living things became a much more pronounced and present feature of the world with the coming of life. Non-being as something against which an existing entity had to enact its being appeared really with the advent of life. In fact, I think that the clearest presentation of his thought on this issue comes from his Memoirs, page 230:”Life is not mortal although it is life but because it is life. This is in accordance with its most original constitution . . . Its actuality, a paradoxical and constant contradiction of mechanical nature, is at bottom a constant crisis, which it never securely copes with, each time only as the continuation of its crisis . . . The living form pursues is unmeasured existence as a particularity within matter, paradoxical, labile, unsure, threatened, finite, and closely related to death.” Be that as it may, though, Jonas’s failure to offer such clarification does represent here a flaw in his thinking on this score. A more comprehensive address and response to this failure is, unfortunately, beyond the scope of this dissertation,
Nonetheless, non-being does not only inform the being of the organism in rendering the organism distinct from the non-organic; non-being also informs how the organism exists in its everyday existence. That is, the organism strives every day to stave off death. We can consider here some stock examples: beavers warn of imminent danger through slapping their tails on water; skunks repel potential threats through emitting noxious odors; trees produce pitch (tar) to expel bark beetles which could sicken them. The actions done by these and countless other organisms are done for the sake of remaining alive in the face of death. Nonetheless, it is not only in the face of impending danger that organisms can be said to act with regards to the possibility of death. As Jonas says, the organism, qua metabolic, must continually exchange matter with its environment in order to survive. The basic process of taking in nutrition, then, carries existential weight, because it represents the organism’s attempt to remain alive and existing in the face death. And since metabolism is the feature *sine qua non* of organisms, then organisms must always act metabolically (defined broadly as we noted above) in order to survive. The existence of the organism, therefore, is not some static state. Rather, this “existence is a function . . . the incessant production” of the organism itself.\(^\text{178}\)

Thus, the organism is not a passive recipient of this threat of annihilation. Rather, the organism strives constantly to stay alive, and, in so doing, it asserts itself in its very being. After all, “the organism has its being on condition” which can at any point be “revoked.”\(^\text{179}\) In fact, says Jonas, this constant near-presence of death cannot be divorced from the basic ontology of the organism as such. “So constitutive for life is the possibility of not-being that its [the living organism’s] very being is *essentially* a hovering over this abyss.”\(^\text{180}\) In this fashion, the living

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\(^{178}\) *Memoirs*, 223.

\(^{179}\) *The Phenomenon of Life*, 4.

\(^{180}\) Ibid, emphasis mine.
organism is “intrinsically qualified by the threat of its negative [i.e., death or non-being].” So the possibility of death structures the existence of organisms, according to Jonas. They, like Dasein, are “Beings-onto-death.”

Care and Anxiety of Organisms

In short, then, the organism structures its existence that it “affirms” in being in the face of the possibility of nonbeing. Nevertheless, since “existence affirmed is existence as concern,” then we can talk, as well, about the organism having concern for its own existence or life. As Jonas says, organisms are the sorts of things which act “for the sake of themselves.” The organism is not some “mute thing” disinterested in its own survival and welfare. Instead, the organism is a being who in its very being is concerned with maintaining itself and its life in the face of the immanent possibility of death. Though Jonas never uses the exact expression, Heidegger’s discussion of Dasein as the being whose being is an issue for it pertains well to Jonas’s basic understanding of organisms. Such organisms care about remaining alive.

Not only do organisms care about remaining alive, however, but they also care about the manner in which they do so. In other words, organism, in Jonas’s philosophy, care about being the sorts of organisms they are, more so than merely staying alive at some basic level. “Not duration as such but ‘duration of what?’ is the question here.” For instance, an animal strives to “preserve” not only its life but also its specific “qualities . . . of perception, feeling” and mobility, i.e., it strives to continue to exist as the kind of organism it is with the full use of those

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181 Ibid, emphasis again mine.
182 Memoirs, 223.
183 Ibid.
184 Ibid., 65.
185 The Phenomenon of Life, 231.
186 Mortality and Morality, 73.
features particular to its kind.\textsuperscript{187} Thus, for Jonas, the care manifested by organisms is directed as well towards the complex of qualities possessed by such organisms.\textsuperscript{188}

Nonetheless, this care occurs coincidentally with a corresponding anxiety.\textsuperscript{189} Says Jonas: there is a “huge price of dread which life [has] had to pay from the first.”\textsuperscript{190} Organisms, as we just saw, care about their lives. Yet such living is “precarious:”\textsuperscript{191} the organism, as mortal, faces the “ever-present contrary” of death.\textsuperscript{192} Furthermore, the world external to the organism possesses innumerable features which are a direct “hazard to . . . [its] existence”: for example, too much or too little moisture for plants, the presence of predators and the absence of prey for animals, and the lack of arable land for humans.\textsuperscript{193} In which case, the organism is in constant danger of losing the life it so deeply cares for. Life comes with an “enormous price of anxiety.”\textsuperscript{194} And just as the ascending grades of organic life possessed more complex levels of care, so, too, do they possess more complex levels of anxiety. Animal survival, says Jonas, “requires alertness and effort,” especially given the perception of predators.\textsuperscript{195} Thus, animal life “contains objects of fear” unknown to plant life.\textsuperscript{196} Higher organisms are therefore susceptible to greater anxiety, although such anxiety obtains in all organisms.

\textsuperscript{187} Ibid.
\textsuperscript{188} In chapter three of this dissertation we will look in greater detail at this aspect of Jonas’s thought.
\textsuperscript{189} This anxiety, moreover, is not to be confused with normal fear. In fear, I am frightened by some particular, definite objet: a translation exam, the loss of my current job, the traffic preventing me form reaching my appointment on time, etc. Prior to the experience of that object I do not have fear. And subsequent to the experience, that fear likewise is gone. However, anxiety is much less defined and also broader, in that it does not come and go like fear nor is it object specific, like fear. It is a state we find ourselves, constantly there in the background, as we live out our existence as mortal.
\textsuperscript{190} Phenomenon of Life, 5.
\textsuperscript{191} Ibid.
\textsuperscript{192} Ibid., 4.
\textsuperscript{193} Ibid., 5.
\textsuperscript{194} Mortality and Morality, 62.
\textsuperscript{195} Ibid., 73. Thus a zebra will need to be aware of a lion and try to avoid it in order to survive. Of course, the lion itself also must manifest “alertness and effort,” because it, too, faces the possibility of dangers and predators, e.g., human hunters. All animals, in other words, have anxiety and care about their survival, not merely those atop the proverbial food chain.
\textsuperscript{196} Ibid.
Self and World

Finally, Jonas is adamant that organisms manifest a self-world polarity. To introduce this discussion, Jonas has us recall the issue of identity in metabolic organisms. Such organisms, as we recall, maintain their identity over time and throughout the metabolic process of exchanging matter with their environment. Put differently, “an inner identity of the whole, transcending the collective identity of any appearing and disappearing substratum, must span the ever-changing substratum.” In which case, any organism is quite akin to the person observing it, as both possess an inner identity which exists over time. So the organism’s “unceasing act” of maintaining its identity over time “can . . . be understood as self-continuation.” According to Jonas, the organism, with its interiority and identity over time, thus qualifies as a self.

However, Jonas’s notion of organic selfhood may require explanation. When Jonas talks about inner identity, he is positing not only that the organism as such endures throughout time and space; he is also positing that the organism’s activity cannot be explained fully by forces external to it. The organism itself is a being in its own right and acts as such, over and against being a mere collection of extrinsic causes. In this regard, we have the phenomenon of the growth of a tree, the locomotion of an animal, and the thinking of a human, in and of themselves, as opposed to the falling of a rock due to gravity and other external forces and factors. The organism, unlike the rock, is the agent of such activity. However, for Jonas, this agency and

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197 Mortality and Morality, 67.
198 Ibid.
199 Ibid, emphasis mine.
200 Of course, this selfhood of organisms, like the freedom of organisms, exists in a gradational fashion on the ascending scale of life. Humans, with greater reason and freedom, can thus exercise greater agency than can plants or animals. Perhaps we could say that there is an analogous use of the term “self” here when used for organisms, with humans being the prime analogate, although Jonas does not directly use the language of analogy. In any case, there are different levels of selfhood, corresponding to the different levels of organic life.
selfhood is not merely something over and above external causes; it is also something over and above the aforesaid “collective identity” of intrinsic parts and causes. The organism’s activity is not reducible to the activity of its parts nor even to the interconnection of those parts, considering their constant status of being in metabolic flux.\textsuperscript{201} In which case, the organism is a non-reducible whole, the real agent of its activity in the world, transcending the parts intrinsic to it. “The ‘identity’ of the organism is that of the whole living individual and not [merely] that of the physical” parts within it.\textsuperscript{202}

Yet it is not just that organisms, according to Jonas, have their identity over and above their parts. It is also the case that organisms manifest an interiority over and against external influences. Therefore, organisms possess an “inwardness or subjectivity, imbuing all [their] encounters . . . with the quality of felt selfhood.”\textsuperscript{203} In other words, an organism encounters external things within the framework of its “absolute interest . . . in its own being and continuation.”\textsuperscript{204} The organism is not like a dropped ball which merely bounces off the floor with a force equal to that with which it was dropped. The ball does nothing to affect the mode of

\textsuperscript{201} We should say more on this idea. One could grant Jonas’s position on the continuous metabolic flux of organic parts and still contend that the organism’s activities are reducible to the parts of that organism. That is, there is organism, O, at time T, with parts, P, which performs actions, A. A is caused entirely by P. Next, at time T1, O now has parts P1, which parts fully account for action, A2. The organism as such endures, although its parts, which are constantly changing, do the brunt of its work. However, there is a serious problem with this position. On this view, the organism—as such, over and above its parts—is akin to a placeholder in which the really active entities exist. Or else it is a mere epi-phenomenon of the more fundamental parts. An analogy may help clarify this point. Consider our solar system. We talk as if there is such a thing as this unified, whole of a system. However, the solar system is in actuality merely the set of astronomical bodies which revolve around the sun. The system itself does nothing as such. And its endurance over time is merely the continuation of the astronomical bodies, the sun, and the revolution of such bodies around the sun. In like manner, according to the above criticism, the organism’s endurance over time is no more than the continuous appearance of a self-same entity; or perhaps more accurately, the continued existence of the organism is an easy way to talk about the current situation. But Jonas, if nothing else, posits a robust theory of the organism, according to which it, as such, continues to exist over time, not merely some appearance or epi-phenomenon. In other words, if the organism is a real entity as such, and if the organism endures as such over time, then the organism, as such, must be a real agent, not reducible to the activity of its parts, or else it is more akin to an appearance or epi-phenomenon. So Jonas’s robust theory of organisms entails that the organism, and not just its parts, be an active agent in the course of its continued existence.

\textsuperscript{202} The Phenomenon of Life, 98.

\textsuperscript{203} Mortality and Morality, 69.

\textsuperscript{204} Ibid.
this activity. On the contrary, the organism is “ego-centric,” encountering things with a reference back to itself.\footnote{Ibid.} The organism’s response involves grasping how such things may or may not relate to its own self-interest. In the words of Evan Thompson: “Consider motile bacteria swimming uphill in a food gradient of sugar. The cells tumble about until they hit on an orientation that increases their exposure to sugar, at which point they swim forward, up-gradient, toward the zone of the greatest sugar concentration.”\footnote{Evan Thompson, “Life and Mind: From autopoiesis to neurophenomenology. A tribute to Francisco Varela,” \textit{Phenomenology and the Cognitive Sciences} 3 (2004): 386.} They interact with their environment based on their interest in obtaining the sugar. Thus, we see here self-referential activity, for as Jonas says, “only by being sensitive [to itself] can life be active.”\footnote{Mortality and Morality, 69.}

Such organisms, however, are not monads. After all, as we just saw with the bacteria, they encounter things in their environment “by modes of selective relationships.”\footnote{Ibid.} The organism, qua mortal and metabolic, must go out of itself and relate to the environment around it. Speaking most basically, the organism must take in nourishment and excrete waste. Furthermore, the organism must protect itself against threats which occur within this environment, be they weather-related (floods, droughts, etc.), or organism related (e.g., predators). “In other words, life’s self-transcendence consists in having a world in which it must reach beyond itself and expand its being within a horizon.”\footnote{Ibid.} But this self-expansion in a world is not random or chaotic but ordered according to how it best serves the organism. For example, the aforementioned directional motion of the bacteria towards the sugar was done because sugar is a nutrient rich source of food for the bacteria. This action was ordered for the sake of obtaining a maximal amount of sugar. And not only do we see the ordered activity of the organism, we also see that the things encountered are...
ordered in a certain manner within the organism’s environment. The organism must order the way in which things function within its world. Some things function as protection, some as equipment, some as food, etc. For the organism, as subject, there is a corresponding arrangement of objects within its world. Sugar, relative to the bacteria-subjects, stands as a food-object. Twigs, relative to a bird-subject, stand as protection objects, serviceable for construction of a nest which safeguards the bird’s offspring.\textsuperscript{210}

In this way, the organism is again quite different from a ball. The motion of the ball after it hits the floor is done only according to the force by which it was thrown and the hardness of the surface it hits. Any other similarly hard surface would generate a similar bounce for the ball that is dropped with equal force. Thus, all hard material is the same for the ball, so to speak. But for organisms, even bacteria, not all material is the same, even that with similar mass or density. Something non-nutritious, possessing the same material density as sugar, will not be something towards which the bacteria directs itself. In fact, the bacteria may have no interaction with such material precisely because the material, as such, does not in any way relate back to the organism and its survival. And also unlike the ball, the organism is \textit{adaptable}. The bacteria will change its direction, not because of gravity, but because of the newly changed position of the sugar. The

\textsuperscript{210} A point of clarification is required here. Jonas does employ the subject/object terminology, even though such woddage is, of course, opposed to Heidegger’s own existentialism. Heidegger wanted to overcome the Cartesian split between subject and object. Thus, Dasein, for Heidegger, does not stand over and above objects, as if it were somehow distinct and removed from them. Rather, Dasein is fully embedded in the world of objects, such as we saw with Dasein’s being in the world of equipment. Hence Heidegger tries to avoid talk of Dasein as a subject (whether or not he succeeds in that task is of course a different matter). Thus, Jonas’s incorporation of Heidegger here goes beyond Heidegger’s own thought.

Granted, one could argue that this subject/object position opposes Heidegger, insofar as Heidegger so adamantly critiqued it. Nonetheless, I do not think that Jonas is essentially that different from Heidegger on this point. The main focus Jonas has is on the fact that organisms interact meaningfully with objects in their world. Some such objects are obviously more significant than others; in fact, some objects encountered by the organism are of little or no significance. Nonetheless, there are numerous and various items which organism experiences and responds to. In short, Jonas’s concept of the organism as a subject, analyzable as such, is not a Heideggerian position. However, Jonas’s description of the organism’s involvement with and ordering of the things of its world is much more Heideggerian. Hence, with the preceding clarification in mind, we can, I think, employ the subject-object language to discuss Jonas’s philosophy of the organism existing in its world.
ball, on the other hand, will just keep bouncing according to the hardness of the surface and the force with which it was thrown. The direction and speed of the bacteria alters according to how it can best obtain nutrition. There is no uniform mode of activity explainable in the same way as the motion of the ball. The organism interacts with its environment in a flexible way. Thus, for any organism, there is “a correlative domain of interactions”211 structured according to the organism and its “needs.”212 Hence, says Jonas, for every organism there exists a corresponding “world . . . in which, through which, and against which it must preserve itself.”213

One final note on world is required before we proceed. We saw above that organic interaction with a “world” is both “selective” and “informed” and so is different from the “mere blind dynamism” of the physical forces affecting the ball.214 But what does it mean that an organism is informed and selective? In essence, it means that the organism is engaged with what Thompson calls “sense-making.”215 That is, the world of the organism “is the sense it makes” of that which exists around and relative to it.216 And this world is not equivalent to spatial proximity. The sugar, from above, does not stand as an object in the world of the bacteria because it is a few inches from the bacteria. The sugar exists within that world only because it serves the nutritive needs of the bacteria. Spatial closeness does not a world make. However

212 Mortality and Morality, 69.
213 Ibid., 68, emphasis mine.
214 Ibid., 70. Jonas, in fact, talks of organisms having a world akin to how Continental philosophy talks of how we humans have a world. That is, for Jonas, the world of a particular organism is more than just the totality of things or a general backdrop to its existence. Rather, the world of this organism is unique and significant milieu and web of items in which, toward which, and by which it enacts its existence. In The Phenomenon of Life, 84 , he talks of “world” in the general sense of the totality of things, but he also says that “the self-transcendence of life in having a world . . . springs from the primary antinomy of freedom and necessity inherent in organism as such.” (Emphasis added) In Mortality and Morality, 69, Jonas, after talking about “the world” in general as a sort of universal background stage against and in which organisms exist, then also states that qua “experiencing,” an organism “‘has a world’ . . . an horizon opened by the transcendence of need which breaks the isolation of inner identity to embrace a circumference of vital relationship.” (Emphasis added)
216 Ibid.
“significance” does form a world. That which is significant for the organism becomes part of its world. Yet for such significant items there is also a gradational scale of importance. The savannah grass behind which a lion can hide is important for it but less important than the antelope the lion can kill as a result of hiding behind the grass. Moreover, some things may be significant at one time but not another. For instance, for a beaver, a living birch trees adjacent to a river serve his purpose of constructing a dam. Yet once that dam is completed, then the birch trees, as living organisms, lose their significance in the world of the beaver. Furthermore, certain types of things, even when fairly remote from an organism or which only interact with it intermittently, can play a significant role in its world. For an almond tree, a bee plays a vitally significant role in its pollination, despite not being often in close proximity to the tree. In this fashion, organisms selectively interact with things, doing so informed of the way in which these things can serve the organisms’ needs and desires. Hence, the organisms “enact” a process of signification in regards to their environment and the contents therein. The organism, therefore, exists in a world of things valuable to it.

Summary and Transition

Before moving to a discussion on value in Jonas’s thought, we add some final thoughts about his existential interpretation of biological facts.

Jonas posits that the existential categories of Dasein that we discussed above—i.e., of “being and not-being, of self and world, . . . of freedom and necessity” and of care and anxiety—extend to all organisms. The metabolic organism is free but also limited by necessity, just as

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217 Ibid.
218 Ibid.
219 Philosophical Essays, 198. Emphasis original. To be clear—and as we will see throughout this dissertation—Jonas employs the aforesaid terms, e.g., “care and anxiety,” in an analogous manner. In The Phenomenon of Life,
with Heidegger, Dasein could be free towards its ultimate limitation, death. This free organism is concerned with its own being and survival in the face of mortality, just as Heidegger’s Dasein is a Being-onto-Death for whom its being is of primary importance. The concerned organism thus manifests care and anxiety, much the same way that care and anxiety are basic to Dasein. Finally, the organism is a self in a world of significant items, just as Dasein is a Being-in-the-World. Looking at these existential polarities and categories, we readily see Jonas’s use of Heidegger’s categories for his own philosophy of life.

This Heideggerianism of Jonas runs deeper still. The organism is a Being-in-the-World concerned with its own being. In fact, that being is the “supreme concern” of the organism. But this being, as we have noted, is not some static feature; rather, it has a very dynamic quality. “The being of organisms is their own doing.” They must metabolize constantly in order to exist. They must interact constantly with their environments in order to exist. As such, their being is a “task” rather than a “given state.” And, says Jonas, this task of existence also contains a temporal dimension. “Self-concern [for continued existence] . . . thus opens a horizon of time.” Organisms thus “face forward” insofar as they are concerned with maintaining their existence into the future. They try to continue to exist as themselves going forward in time. This is the “internal direction toward the next impending phase of a being that has to continue

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xxiii, he says that the sorts of existential categories mentioned above have “rudimentary traces in even the most primitive forms of life.” In addition, at the start of this same book, which is his central work on philosophical biology, Jonas argues for a contemporary iteration of the Aristotelian “idea of stratification, of the progressive superposition of levels.” Furthermore, Jonas himself will sometimes use scare quotes to indicate the extended (analogous) uses of certain terms, such as when he discusses the “‘feeling’ of the amoeba.” Thus, I think that Jonas understands these existential terms, when applied to non-human organisms, in an analogous fashion to when they apply to human beings.

220 The Phenomenon of Life, 84.
221 Mortality and Morality, 88.
222 Ibid., 90.
223 Ibid., 70.
224 The Phenomenon of Life, 85.
Thus, the organism strives to exist as itself now and in the future. Moreover, says Jonas, the organism also contains some sense of memory by which it can achieve “the subjective form of its identity in duration.” Therefore, the organism is a being in time, an historical being, whose being is an issue for it, taking into account the entirety of its temporal existence. Like Dasein, it thus attempts to constitute itself continuously within this temporal horizon. It has a life project of being alive as itself throughout the temporal course of its existence. In this way, the organism, like Dasein, is structured in its existence by “the ecstasies of temporality: . . . the future, the character of having been, and the Present.”

In sum, Jonas’s existential interpretation of biological facts presents organisms as akin to Dasein. Jonas has thus extended basic facets of Dasein’s existence to all organisms. Our next task is to see how this extension helps ground Jonas’s “ontology of value.”

Part IV: Toward an “Ontology of Value”

Jonas has given a thoroughly existential analysis of biological facts. This analysis, according to Jonas, serves as grounding of ethics, hence the epilogue for *The Phenomenon of Life*, “Nature and Ethics.” Our current task, therefore, is to see how Jonas’s existential philosophy of life functions in establishing moral norms.

As we start this discussion, we recall an earlier analysis of Martin Heidegger’s philosophy. As we noted, Jonas believed that Heidegger’s existentialism descended into nihilism. In other words, Heidegger detached Dasein from the Natural World and furthermore placed the

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225 Ibid., 86.
226 Ibid.
227 *Being and Time*, 377.
locus of all value in Dasein’s Being-in-the-World. Dasein, thus, did not encounter value in the world but rather posited it. Thus, its sole moral guide was its own resolute authenticity. Hence, says Jonas, Heidegger reduced nature to the “status of mere thinghood,” rendering it (and indeed anything beyond Dasein’s resoluteness) as an ultimate source of value in the world. Consequently, Jonas believes that this thinking leads to the nihilistic dictum to “eat, drink, and be merry for tomorrow we die.” No real, external value exists to guide Dasein, and so he could readily embrace Nazism.

Therefore, Jonas’s ethics, stemming from his philosophy of life, will directly address the issue of value. Jonas will attempt to locate objective value in reality, which value will serve as a base for a robust ethics. In the face of Nazism, Auschwitz, and the possibility of technological destruction of the natural world, Jonas thus argues for an “imperative of responsibility” in his book so titled: an objective value in reality to which humans owe responsibility and which they ought to consider and protect. In this section, we will thus focus on Jonas’s analysis of objective value as the basis for ethical responsibility.

One final note is required here. For Jonas, human beings are the only moral agents in the universe. As we shall see, he does not think that humans are the only beings with value. Rather, he thinks that humans are the only beings who can recognize and respond to value. Humans, that

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228 Ibid., 231.
229 Ibid., 234.
230 Reality is a term Jonas himself employs, despite its philosophical baggage. For instance, in the Imperative of Responsibility, he devotes an entire chapter to the study of “Ends and their Status in Reality.” By “reality,” Jonas means, I think, what non-existential-phenomenologists mean by world: the totality and limit of everything that exists, including, but going far beyond, humans and human mindedness (“existence” being taken in a more colloquial way here). Thus, to go back to Jonas’s own example: ends which obtain in reality are ends which obtain in cases outside any human involvement or projection. Hence an organism can, in reality, pursue an end, regardless of how humans interpret or think about that event. In other words, it is really the case that amoebas pursue ends, and so there are ends which can be found in numerous instances throughout reality, insofar as something such as an amoeba can possess ends. The main point of this discussion is that for Jonas, the discussion on value hinges on the idea that in reality, as he understands that term, there may be present something(s) of objective value which serve to ground a much needed ethic for contemporary humanity.
is, are the only beings who can be put under moral norms and obligations; they are the only beings who can be praised or blamed for their actions, especially in conforming or failing to conform to such norms. So the ethic which Jonas works out is relevant for the moral regulation of human beings alone and their behavior.

In addition, says Jonas, this ethic will be an ethic of responsibility. As moral agents who recognize and respond to value, humans thus assume responsibility for those things of value. In a fairly Kantian manner, Jonas thus portrays the sphere of human normativity as involving one’s responsibility. Unlike Mill, for instance, Jonas’s primary concern is not utility. And unlike Aristotle, he is not concerned with the issue of happiness as basic. Instead, he thinks that responsibility is a basic mode of being human. In the language of Heidegger, he would say that being-responsible-for is a fundamental aspect of one’s being, just as much, perhaps, as Being-unto-Death for example. So Jonas wants to work out an ethic which will articulate those things to which humanity bears most responsibility. He wants to clarify precisely that which we are responsible for in our being responsible.

Preliminary Clarifications

Before we move into a fuller discussion on responsibility and value, we need to bear in mind four important tenets of Jonas’s thought. The first such tenet is that Jonas, following Heidegger, makes use of the distinction between the “ontic” and the “ontological”. An ontic explanation addresses entities: humans, animals, tools, etc. Thus, biology is an example of an ontic science. An ontological explanation, however, goes further: “ontological inquiry is more primordial” in that it tries to “discuss the meaning of Being in general.”

Thus, ontology, done

\(^{231}\) *Being and Time*, 31.
properly, does not treat of Being as if it were an entity among other entities. Instead, ontology 
treats of the Being which all such entities possess and manifest.\textsuperscript{232} As we shall presently see, 
Jonas employs this distinction in his own philosophy.

We thus can now examine the second relevant tenet of Jonas’s thought: Jonas sees Life as 
the paradigm of Being.\textsuperscript{233} Jonas seems to be stating that whatever obtains in general in Life is 
thus an ontological, not ontic fact, insofar as Life is paradigmatic of Being. To understand Life is 
to understand Being since Being, is most clearly manifest in Life. “The essence of reality reveals itself most completely in the organic components of the organism.”\textsuperscript{234} The fundamental modes of 
organic life are therefore the fundamental modes of Being.\textsuperscript{235} What Life reveals about itself is 
ultimately a revelation about Being. In this way, Jonas can be said to be executing his own 
“Fundamental Ontology.” Only, unlike Heidegger, he addresses organic Life, not Dasein, as the 
object for studying basic structures of Being. Therefore, Jonas’s philosophy of Life is, for him, 
ultimately a study of ontology. In short, the existential analysis of organisms presented above has 
ontological repercussions for Jonas. The significance of Life, especially as relevant for the issue 
of value, therefore will be ontological in scope.

\textsuperscript{232} To mark this ontological distinction, we will use a stylistic-linguistic difference between “Being” (with a capital B) and “being” (with a lower-case b). The former is the Ontological Being, the latter is the ontic being. NB. Jonas himself does not consistently use this stylistic-linguistic distinction. Likewise, there are issues surrounding the use of this linguistic distinction for Heidegger. Nonetheless, since Jonas follows Heidegger in using this ontological distinction, we will employ the linguistic difference for ease of understanding.

\textsuperscript{233} Here, we should pause and note the use of the term “Life” with a capital L. A helpful way to think of this term is to compare it with the use of “Being” as seen above with Heidegger. In Jonas’s thought, “Life” does not refer to the life of this or that particular organism. In fact, he is not talking about a group of living organisms considered together. Rather, he seems to be talking about Life in much the same way that Heidegger is talking about Being: a universal presence, over and above individual living things. Also, Jonas himself does not always use this distinction between lower and upper-case life. We do so here in order to articulate this philosophical distinctions he employs in his work

\textsuperscript{234} Memoirs, 198.

\textsuperscript{235} Thus, for example, the mode of organic freedom—which we addressed in the previous chapter—is also a “discernible mode of being” and thus is “an ontologically descriptive term.” (The Phenomenon of Life, 3)
That said, we move onto the third relevant tenet of Jonas’s thought: Jonas does not adhere strictly to the fact-value distinction. He does not believe there to be a moral gap between what is and what ought to be. Rather, Jonas thinks that the proper ground for ethics is ontology: a deep understanding of being will reveal basic ethical principles. In this respect, Jonas differs from ethicists such as G.E. Moore whose position is that “ethics is an autonomous science, irreducible to natural science or, indeed, to metaphysics.” Instead, says Jonas, “for the sake of our first [ethical] principle . . . it is necessary to take the . . . plunge into ontology.” “Metaphysics . . . has always been a business of reason, and reason can be set to work” in helping to ground ethical considerations and the ultimate question of value. Or as Jonas says later: “Being, in the testimony it gives to itself, informs us not only about what it is but also about what we owe to it.”

The fourth and final tenet is the following. For Jonas, humans manifest the same modes of Life (e.g., the self-world polarity) as do all organisms, albeit to a higher degree. Humanity is not cut off from the rest of the organic community. Jonas thinks of Life as a continuum, with bacteria perhaps at the bottom and humans evidently at the apex. But—and this is central—humans do not exist sundered or distinct from Life. Jonas in no way adopts Descartes’s radical divide between mind and matter. But insofar as humanity cannot be considered apart from Life, likewise is it the case that Life cannot ever be considered absent humanity. In this sense, as Lawrence Vogel says, Jonas’s philosophy cuts across the anthropocentric vs. nature-centric divide in environmental ethics. For Jonas, there is a community of Life whose apex is

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238 Ibid.
239 *Mortality and Morality*, 101.
humanity. Humanity can never be sundered from that community, as it belongs essentially to it. In like manner, that community, in order to be fully itself, must include humanity.

The Need for a New Ethic

Now we turn to examine Jonas’s thoughts on the need for a new ethic. For Jonas, this need becomes apparent in the wake of such horrors as the Holocaust. Jonas sees the Holocaust as the culmination of a nihilistic view of the universe, a universe devoid of value in itself and providing no moral norms for man except what he himself posits. Moreover, Jonas thinks that events such as the Holocaust could happen again. For instance, he sees contemporary technology as capable of unleashing unforeseen and unbelievable horrors upon humanity. One could call Jonas here a pessimist perhaps, although others may see him as more of a realist. In any case, Jonas’s position is that the continued existence of humanity and the earth is tenuous and a strong moral system is called for urgently which can provide norms by which humanity can prevent further catastrophes.⁵⁴¹ We need to come up with an ethic grounded on objective value.

Let me say more about objective value. As we saw with Heidegger’s Dasein, the natural world could be valuable, insofar as it was valuable for Dasein. It possessed, in other words, an instrumental value. So value, from this perspective, does not exist in living nature apart from some human who values other things for himself and his goals. And since living nature, for Jonas, is the fullest expression (paradigm) of Being, then if nature does not harbor objective value, Being as such does not either. Apart from human valuation, there is no real value then. Hence, there is no value out there which humans must respect and bear responsibility for. There is only the subjective valuing of the human being, which, as we saw, could descend into the

⁵⁴¹ See The Imperative of Responsibility, chapter 1.
nihilism of Nazism. So to obviate that possibility, Jonas contends that there is a pressing need for a robust, objectively grounded ethic. Put differently, for Jonas, only the establishment of objective value in reality—beyond subjective human valuing—can serve as the basis for an ethic capable of combating the possibility of horrors such as the Holocaust or the technological destruction of the earth and its inhabitants.

Furthermore, Jonas thinks that objective value can fulfill this ethical role precisely because such value is tantamount to the good itself. Since ethics is concerned with obligation, and obligation is concerned with duties towards the good, then the good must be a first principle in an ethical system. Therefore, when Jonas talks about objective value as basic to his ethical system, he sees it as “the value in itself” which equals the “concept of the good.” Whatever that value turns out to be will serve as the good by which ethical norms are grounded.

What things, then, can philosophy find and articulate which can serve as the good in itself? What is the best we can do in terms of ascertaining some objective value in this universe inching towards nihilism? In such a universe, is there some X for which it would always be better to be than not be?

The Subject Status of Living Nature

As we start to answer these questions, it is worthwhile reflecting on Jonas’s organic ontology, especially in contradistinction to Heidegger. Unlike Heidegger, Jonas sees all organisms as akin to Dasein: they all manifest the following basic bi-polarities: self/world, being/non-being, and freedom/necessity, and they all exhibit care and anxiety. Also unlike

242 Ibid., 77.
243 Ibid.
Heidegger, Jonas talks of subjectivity. That is, he sees Dasein-like organisms as subjects, who exist co-relative to certain objects.\footnote{244}{See footnote 221 for a further discussion on Jonas’s uses of subject-object language and how in doing so he goes beyond but may not fundamentally oppose Heidegger’s analysis of Dasein’s Being-in-the-world.}

Now we need to flesh out this position relative to Jonas’s philosophy. In distinction from Heidegger, Jonas does not take organisms to be mere equipment within the world of Dasein. In other words, organisms are not just objects relative to a Dasein subject. Rather, as we saw, all organisms manifest the sort of what Jonas would call the “subjective” status of Dasein, albeit to varying degrees. “Subjectivity . . . no matter how faint” obtains in any and all organisms.\footnote{245}{Mortality and Morality, 69.} No organism can therefore be reduced completely to the status of mere object. Thus, Jonas’s extension of Heidegger’s thought also includes Jonas’s positioning organisms as subjects.

Let us see briefly how organisms can qualify as subjects. Consider a spider weaving a web between two trees. The trees are things which the spider makes use of. They are not disconnected from the spider’s life and involvement in his environment. And in order to make use of them, the spider must be aware of them. For the spider, therefore, the trees seem to be objects in much the same way as, for example, a cup and the bottle are for me: i.e., things which I sense and make use of. Granted, my consciousness of these items is different from the spider’s: i.e., I sense, interpret, understand, and respond to them differently than the manner in which the spider relates cognitively to the trees. Nonetheless, the trees are things which are present to the spider in his awareness (however basic that might be). Not only that, but the trees are also things which he employs so as to construct a web on which to move and on which to catch prey. The trees are thus objects of his conscious intention and objects of his environment (or world, to speak phenomenologically.)
When we examine non-animal organisms, however, the situation seems less clear. First, plants do not possess awareness, in which case there are no objects of consciousness for them. And, second, what sense does it make to say that a tree or a flower uses objects the way I intentionally and deliberately use the cup and the bottle (and a host of other objects besides)? Jonas’s answer, in brief, is this. Given his monistic \(^{246}\) interpretation of reality—i.e., that there is no radical split between mind and matter—Jonas posits that the germs of consciousness must obtain in all of life, in order for it to be present fully in any form of life, i.e., the human. In more scholastic terms, something analogous to consciousness must be present even in plants, insofar as plants and humans exist within the same community of organisms and insofar as humans (with their conscious capabilities) evolved from other life forms. So although it is obvious that trees do not ‘see’ in the same manner as humans or animals, they still exercise some form of responsiveness to their environment similar to animals and humans do based on their consciousness (recall our discussion on bacterial activity as responsive to an environment). We can therefore talk about plants having some ‘sense’—albeit in a loose, analogous way—by which they respond to their environment. In which case, non-animal organisms can be said to have ‘objects.’ After all, a tree, in growing roots, act toward greater sources of nutrition. The development of leaves turned to the sun is a similar phenomenon. The sunlight and the nutritious soil, consequently, can qualify as objects for the subject organisms, which, as we described earlier, are trying to stay alive. Hence, the organisms demonstrate some sort of intentional

\(^{246}\) I need to clarify what sort of monism Jonas adheres to, since there are several types of philosophical monism. For example, there is Parmenides’s monism which denies any real distinction between things and which posits the absolute unity of being. There is also a physicalist monism, which says that all things are merely material, even mind and will. Then there is mental monism which posits all things being mind or the projection of mind. Jonas’s monism is a reconciliation between the last physicalist and mental monisms. For him, there mind and matter belong fundamentally to the same reality; there is a primordial unity to all things, bringing together even a minded human being and a tiny amoeba.
activity—again, analogous to animals and humans—and so there will be objects of such “subjective” activity.  

Organisms as Purposeful

In addition, such activity on the part of all organisms is not random or chaotic according to Jonas. Such striving organisms, acting for the sake of themselves and their own lives, are fundamentally purposeful beings. For Jonas, it is not the case that organisms tend to stay alive merely because of other factors, either internal or external. Constant organic existence is not to be reduced to the proliferation of genes, the uniting of atoms or sub-atomic particles, or to any other set of causes. In such cases, the fact that the organism remains alive is a mere accident of more basic causes. The real causal agency, the real ontological work and status, lies with these more basic causes. However, Jonas, with his insistence on the organic individual as ontologically primary, does not accept such a framework. Thus we have seen Jonas’s insistence that a metabolic organism is a ‘self,’ existing and acting over and above its parts, which parts, in fact, come and go throughout the existence of the organism itself. Thus, he puts the locus of agency and being in the organism as such. The continued life and flourishing of the organism must result from the organism itself acting for the sake of itself. As “an end-in-itself” the organism, says Jonas, is purposeful. It purposefully pursues its own continued existence.

Jonas is here recalling a more classical position on teleology: something, in this case the organism, acts for the sake of some goal or end. As such, any organism is akin to a human agent. Just as I act for the sake of completing this dissertation, i.e., I act for that goal, so likewise do

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247 We will address more of this theme of mind in nature in chapters three and six. For a helpful perspective on this issue see Thomas Nagel’s. *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False.* (New York, NY: Oxford University Press, 2012).

248 *The Imperative of Responsibility*, 81.
organisms, according to Jonas, act for the sake of certain goals. Jonas uses the example of a cat seeking after food. Insofar as the cat is a self, existing over and above its biological and chemical parts and even its instincts, then the activity of the cat is teleological: the cat pursues the mouse for the sake of killing and eating it. The cat, therefore, exhibits purposeful behavior. Moreover, says, Jonas, all organisms exhibit such purposefulness: Jonas thus talks about “Final Cause in Preconscious Nature.” For instance, the bacteria we addressed before move as they do for the sake of obtaining the nutrient-rich sugar. In fact, Jonas would say that obtaining the sugar is the purpose for which the bacteria so act. Thus, in Jonas’s thought, we find that purpose obtains in all levels of Life.

In Jonas’s philosophy, therefore, the activity of organisms cannot be reduced to material and or efficient causes. That is to say, the cat’s behavior in regard to the mouse cannot be explained merely by reference to the material parts of the cat or to some sort of force or compulsion. The cat is a self, an agent, who acts for her own survival. Thus, an immediate goal of the cat is the satiation of hunger, which goal, of course, fits into that ultimate and final goal of survival. So, the cat, in pursuing the mouse, desires to catch, kill, and consume the mouse, for the sake of that goal. The fall of a ball due to gravity is thus quite dissimilar to the purposive activity of the cat. The former is explained fully by physical forces whereas for the latter to be explained there must be reference to final causality.

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249 Ibid., 59-61. NB. As we discussed above, for Jonas, this idea of “pre-consciousness” implies that something analogous to consciousness obtains in non-animal organisms. In other words, “pre-consciousness” does not amount to the total absence of consciousness. In fact, the very term “pre” indicates, as we discussed above, a connection to the fullness of consciousness in human beings, whereas a term like “a-consciousness”—which could be used in reference to inanimate objects—indicates a total disconnect from full consciousness.

250 Ibid, 69.

251 A point of clarification is required here. The earth is able to support such purposeful life because of its orbit around the sun, which orbit can be explained by such physical forces and conditions, explained a-teleologically in other words. So how can there be an a-teleological precondition for Life, if Life, for Jonas, is so purposeful? Chapter five of this dissertation will examine this and other related questions.
Subjective, Purposive Life and the Issue of Value

Now that we have considered subject-status and purposefulness of Life separately, our next task will be to examine them together. Our question here is this: what can we ascertain about Life when we examine it as both subject and purposive? The first thing we note is that the purposive activity of subjects involves valuation, valuation here meaning the process of assigning some sense of worth to things one encounters. The organism subject which purposefully pursues nutrition likewise values certain objects within its world: a tree values rich soil in which the proper nutrients can be found; a rabbit values thick undergrowth in a forest in which it can hide from predators; and a human values numerous objects which enable him to complete his tasks (as we discussed in detail with Dasein). Furthermore, the objects in the worlds of organisms have their particular status within those worlds precisely because these objects play an important or necessary role for the organism in its purposeful activity of affirming itself in life. Such objects are valuable because they are serviceable, and they are serviceable because they serve a purpose in the organism’s purposive activity in the world. For a dropped ball, such things as the desk, the chair, and the floor which it hits serve no purpose for it, because the ball itself is not a subject; it is not an active agent here at all; and it has no purposes itself whatsoever. (In fact, the ball is not a self.) However, for me, those same things—the desk, the chair, and the floor—do stand as objects relative to my being a subject. In other words, they do serve a function insofar as they facilitate my ultimate purpose within this context, i.e., writing my dissertation. And the same structure of purpose and objects serving that purpose obtains for all subject organisms in their Being-in-the-world. Even bacteria manifest this ontological

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252 Such a systemic valuation could be said to obtain even in the case of the aforementioned “motile bacteria” which “prefer” ready access to the zone of sugar concentration.
characteristic of Life. So for organisms, objects are valuable insofar as they serve the organisms’ purposes.

Let me discuss a bit more on this theme by raising a relevant question: could a non-purposeful X posit or find value at all? If X is not acting for the sake of any end, then for X, no one thing is more or less valuable than another. So X will not posit anything as valuable. However, could X find something valuable for another or in general? Could X thus be as the “disinterested and benevolent spectator” of John Mill is thought? The “disinterested and benevolent spectator” sees that there should be a maximization of utility for all parties relevant to this situation. He demonstrates no decided preference for the utility of himself, his family, his country, etc. as over and above the utility of others. In short, from his disinterested standpoint, he grasps the value of maximal utility. This seems to be a case where a non-purposeful X can still recognize and respond to value. Nonetheless, this approach will not work, even from within Mill’s own thought. After all, even the disinterested spectator has preferences, including a preference for his “own happiness.” His disinterest, therefore, is not absolute but only relative: he is disinterested in pursuing his own happiness over and above anyone else’s, not disinterested in general. Thus, utilitarianism promotes on an equal scale the “interest of every individual,” even the “disinterested spectator.” In other words, this X who recognizes value is a purposeful X, that is, one who purposefully pursues his own happiness and had a preference for it, albeit not over and above anyone else’s. So we again see the connection between purposefulness and value.

254 Ibid.
255 Ibid.
Jonas’s philosophy, in this regard, implies that value enters reality when there are purposeful subjects in that reality. In other words, a universe with purposeful subjects is also a universe with value (e.g., valued objects). On the other hand, a universe lacking such subjects would likewise be lacking value. Purposive subjectivity is the necessary and sufficient condition for the possibility of value in the universe. In Jonas’s own words: the fact that “Nature harbors values” follows from the fact that nature “harbors ends.”\footnote{The Imperative of Responsibility, 78.} A purposive nature, filled with organisms which are ends in themselves and act teleologically “is thus anything but value-free.”\footnote{Ibid.} In which case, the fact “that the world has values follows directly from its having purposes.”\footnote{Ibid., 76.} Or as Theresa Morris says: “the fact that all organisms exhibit purpose and pursue their own ends . . . shows that value exists in the” universe.\footnote{Theresa Morris, Hans Jonas’s Ethic of Responsibility, 92.}

This point requires further clarification. After all, we have seen that with subjective human purposes, value comes into play: human Dasein, for example, values serviceable equipment in his world. So it is not the question of value considered absolutely that we are concerned with but rather the question of value obtaining beyond such human subjectivity. And as we just saw, Jonas responds affirmatively: because all organisms—plants, bacteria, trees, dogs, cats, etc.—evince purposefulness, then likewise do they encounter value. Qua purposeful subjects, organisms thus live in worlds of value. After all, “To say that something has value, is to require a subject who values.”\footnote{Hans Jonas’s Ethic of Responsibility, 92.} So Living nature, insofar as it contains purposeful organic subjects, thus likewise contains value “independent of human valuers.”\footnote{Ibid.}
Purposive Being as the Basic Good

Is this valuing of Life ultimately subjective or does it have some objective standing? And if has some objective standing, what does that look like? After all, Life, as valued, if it is to qualify as the good, must manifest an objective, not merely subjective, value.

Here is how Jonas works out a response. Jonas contends that value and the ethical ascription of good-bad require the prior presence and function of purposefulness. In this regard, he argues that even a Buddhist indifference and positing of nirvana as good still, paradoxically, hinges on a desire for this state of non-desire and non-attachment. That is, denying “the value of purpose” unfolds such that “what is denied becomes a negative value.” To operate in and be responsive to a world of values entails that purpose obtains fundamentally in that same world. In a world devoid of purpose, says Jonas, it makes no difference whether or not X exists, Y is achieved, or Z is realized. All such facts of existence or activity are, as contemporary science would say, value-neutral.

Therefore, Jonas thinks that “we can regard the mere capacity to have any purposes at all as a good-in-itself.” The capacity to have any purposes . . . [is] an ontological axiom.

Now, it is important to note that this “mere capacity” is not some isolated or rare feature of things. Instead, this capacity is, as we have seen, ingredient to Living nature (and in fact, as we

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262 Ibid., 80.
263 Suppose that S has an interest in X or a desire for X. If S has an interest in X then S can, in some way, “cognize” X and pursue it; i.e., it exercises purposes. If S desires X, then S will aim at X; i.e., it will exercise purpose. X’s goodness for S implies S’s status as purposive. Granted, one could argue further that S may not in anyway be minded, intentional, and purposeful but still could be needy. In which case, could not there be some X which is good for it, despite the fact that neither S nor X is purposeful nor is there any purpose in their origins or interactions. Viewed thus, it would not, from a larger perspective, really matter whether or not S existed or not. There would be no obligations or oughts pertaining to S. Thus the “good” surrounding S would be so specific and relative to lack any moral significance at all. Hence, we would not be discussing here a “world of values” at all in which and toward which ethical responses can be enacted. In short: a real obtaining of ethically significant and binding value (or goodness) seems quite impossible absent the concurrent presence and operation of purposefulness.
264 The Imperative of Responsibility, 80.
265 Ibid., 81.
will see in chapter five, ingredient to pre-organic nature). Purpose, expressed in Heideggerian terms, is an ontological, not ontic, principle. In addition, Being is most clearly realized and expressed through this principle that coincides with it. “In every purpose, being declares itself for itself and against nothingness.” With the ontological presence of purposefulness, we see a fundamental “Self-Affirmation of Being.” That is, “in every purpose, being declares itself for itself.” At the most foundational level possible there is made manifest a decisive and total interest in Being, an interest which grounds all subsequent values. “The mere fact that being is not indifferent toward itself makes its difference from nonbeing the basic value of all values, the first ‘yes’ in general.” A condition or state—i.e., purposive Being—stands as basically good, as opposed to not-good or evil. From the very bottom to the very top, as it were, Being is value-laden.

Jonas presents, therefore, a foundational and complete bridging of the is/ought distinction. Since purposefulness “is its own accreditation within being,”—and is, as we have seen, ingredient to Being itself—then we “must postulate this [purposive Being] as an ontological axiom.” Purposeful Being is fundamentally good, the sort of ethical principle around which Ethics for the Technological Age can be constructed. Consequently, pursuant to this presentation of purposeful Being as the basic good, Jonas has shown a robust and very real world of values.

Insofar as there is something rather than nothing—and that something, via the purposefulness ingredient to it, affirms its own and continued Being—then ethical agents, such as

266 Ibid., 81.
267 Ibid.
268 Ibid.
269 Ibid.
270 Ibid., 80.
human beings, are called to cognize, respect, and protect value. This presence of value, and the concurrent ethical demands stemming from it, obtains as a transcendental condition for such agents.\textsuperscript{271} To borrow language from Heidegger: we are always already forced to reckon with and respond ethically to the \textit{apriori} value in reality, regardless of our own preferences or desires. Of course, as Jonas says, “we are free to reject the vote of Nature.”\textsuperscript{272} However, this rejection convicts us as unethical rather than Being as non-valuable. This “independent good” exists as such even if “we failed to give the good its due.”\textsuperscript{273}

\textit{Ethical Consequences of This Ontological Grounding}

Here, we recall that for Jonas, ethics is about responsibility. Therefore, now that we see that purposive Being itself—considered in its fullness—is good, we have a better sense of that toward which we owe responsibility. After all, as we discussed before, Jonas’s ethics revolves around the issue of responsibility. Hence, our ethical response will be to care properly for the good of Being. In which case, the question arises: what will this responsible care look like for Jonas?

As we answer this question, we need to recall two facts. First, we recall that for Jonas, Life is the paradigm and fullness of Being. In this regard, the ethical responsibility toward Being will be most fully realized in ethical responsibility toward Life.\textsuperscript{274} It is living beings that demand

\textsuperscript{271} See Ibid., 82: there is an “Obligating Force of the Ontological ‘Yes’ upon Man.”
\textsuperscript{272} Ibid., 76.
\textsuperscript{273} Ibid., 84.
\textsuperscript{274} Jonas contends that Life, as the “cradle for the mind,” is thus the primary and most essential means by which purposiveness in Being is realized and fulfilled. (\textit{Mortality and Morality}, 190) See also \textit{The Imperative of}
from us the most binding, significant, and comprehensive sort of ethical responses. Second, we recall that Jonas sees a wholeness of Life. Jonas, in other words, posits a community of Life which includes every organism, from bacteria to basswood tree, to beavers, to human beings. Because all this community participates in the aforesaid “ontological revolution,” and because ontology grounds ethics for Jonas, it seems to follow that human agents bear responsibility for all members of this organic community.

Yet this bearing of responsibility requires important nuance. First, if humans owed absolute responsibility towards all organisms, then they might not be able to even eat other organisms and so would perish. Ergo, in the name of being responsible for life, humanity would destroy itself; i.e., it would destroy a valuable and integral part of that very community of Life toward which it was trying to exercise ethical responsibility. So responsibility towards the good of Life is nuanced. As Lawrence Vogel points out: Jonas is not condemning swatting a single mosquito (even though that mosquito, qua organism, does harbor value).275 The single mosquito, relative to the human being, does not impose hugely binding obligations. Rather, Jonas is looking more at the big picture of Life and relevant binding obligations. In short, Jonas is not proscribing exact, particular norms but rather posits more general norms stemming from his “ontology of value.”

According to Jonas, “the next value, deriving from the basic value of being as such and enhancing its difference from nonbeing, would be the maximization of purposiveness.”276 Thus, the ethical responsibility here demands that we respect the flourishing and expansion of purposefulness in Life. In which case, actions that be criticized because they seem contrary to

\[\text{Responsibility, 82: Through its purposiveness, “being becomes a positive concern,” and “Life as such . . . is an expression of this choice” of Being for itself.}\]


276 The Imperative of Responsibility, 81.
this respect might would be the following: the destruction of an entire species and the variety of value-laden Life found within that species; deforestation which greatly harms the quality of Life and the possibility of purposive existence for numerous organisms, including humans; homogentic global warming which could harm or even destroy numerous organisms, including humans.

Nonetheless, we should also note here that this ethical response to Being and Life includes, as well, a particular ethical response to humanity. Indeed, insofar as humanity represents the full flowering of Being and Life, then humanity is a unique and special part of Life that demands a particular moral concern. Humans possess the fullness of the distinct existential characteristics of life. In humanity is found the height of freedom, selfhood, concern in the face of death, subjectivity, and purposefulness. Likewise, as humans are the only responsible moral agents in the universe, then responsibility itself is found only in humanity. Hence, Life, in making man, has thus in a way perfected itself and made itself complete. In which case, because Life is good, then humanity must be very good. Therefore, humanity receives a most clear ethical articulation. That is, Jonas issues a specific ethical command for humanity alone. Namely in his ethics, “the first imperative” is “that there be a mankind.” Because of man’s primacy and importance in Life (after all, as we said, man is part of the community of Life), then man possesses special consideration. In which case, states Jonas, “never must the existence or essence of man as a whole be made a stake in the hazards of action.”

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277 Ibid., 82: Humanity is “the supreme outcome of nature’s purposive labor.”
278 See, for example, Genesis 1: After creating man last in the order of creation, God looked on what he had made and saw that it was very good.
279 The Imperative of Responsibility, 43.
280 Ibid., 37.
This point requires further explication. Jonas, as was mentioned earlier, is neither an anthropocentrist nor a non-anthropocentrist. Instead, he sees Life, qua integral whole, as the ultimate basis for ethical concern. Ethical responsibility is thus directed towards this value-laden Life. And since Life is gradational, with ascending scales of life from plants, to animals, to humans, then the corresponding responsibility which humans—and humans alone—have towards Life will likewise be gradational. The higher life forms may call for greater responsibility on the part of humans in their ethical activity. Thus, as noted above, humanity assumes supreme ethical consideration. This does not imply, however, that lower life forms are beyond the pale of responsibility. As part of the community of value-laden Life, they, too, must be given proper ethical consideration; responsibility must be exercised towards them as well. Again, exactly how that responsibility is exercised in specific detail is not a question Jonas addresses at length. Nonetheless, he does provide a general framework for looking at all organisms as both members of the good of Life and as value-laden in themselves, albeit to varying degrees.

In this manner, Jonas has posited a comprehensive ethic in the midst of the potential nihilistic tendencies of contemporary humanity. Now, thinks Jonas, when a person looks at the universe or nature or Life, he will not see raw material, brute thinghood, or worthless stuff that he can manipulate and exploit. He will not see a valueless reality providing no real and binding norms. Instead, one will find a value-laden reality in which he participates. One will see that a basic principle of ethics is found in the reality of organic Life. One will thus see that he is now called to respond dutifully to some good beyond himself. Unlike Heidegger’s contention about authentic Dasein, Jonas argues that an individual person and his sense of value no longer are his sole moral compass. The person must look outside himself (and indeed outside all other
subjective human valuations) in order to come to a value in itself which demands of him a profound respect and ethical responsibility.

Issues of Teleology and Transition to Chapter Two

In reflecting on Jonas’s establishment of an “ontology of value,” we note the following process. First, Jonas sees Heidegger’s philosophy as descending towards nihilism. There is a great ethical vacuum in the midst of Heidegger’s thought. Jonas sees that danger and sees it as emblematic of a contemporary ethical void. He thus presents a detailed response culminating in the aforesaid “ontology of value.” As we have seen, his initial step in this response is to work out an existential interpretation of biological facts. That is, he employs Heidegger’s existential analysis of Dasein and extends it to all organic life. According to Jonas, basic polarities of existence such as self/world, being/non-being, and freedom/necessity obtain in all organisms. But Jonas thinks that such an ontology of Life will likewise bear ethical fruit. Jonas discusses how this existential interpretation indicates the presence of subjectivity and purposefulness in organisms. Furthermore, this subjectivity and purposefulness indicates the presence of values in organisms. And the presence of value in Life indicates the ultimate good in Being. So Jonas’s philosophy of Life leads to his “ontology of value” and the overcoming of the Heideggerian nihilism he so profoundly opposes.

Jonas’s posting of value in Life hinges on his discussion of the purposefulness of Life. But this concept of purposefulness is not uncontroversial or entirely clear in itself. There are, I think, four different types of questions that attend Jonas’s use of teleology. First, the concept of purposefulness can have quite different meanings in the history of philosophy. For example, Aristotle—with his robust and realist philosophy of nature—seems to present fairly different
ideas on teleology than does Kant, especially given his Transcendental Idealism. And contemporary thinkers, often assuming a post-Darwinian stance, in which Life evolved randomly and teleology does not explain things scientifically, do not readily accept a strong sense of final causality. Second, a discussion on organic purposefulness faces the following questions. What sense does it make to talk of organic purposefulness if not all organisms are fully conscious? Do all organisms pursue purposefully the same sorts of ends? Does organic teleology function in a manner to how the teleology of artifacts (e.g., computers and other such machines) functions? Are there grades of purposes which organisms pursue? Is this purposefulness found not only in the activity of an organism but also in its being? Is animal teleology significantly different from plant teleology, especially in light of the certain characteristics—e.g., motility and sensation—which differentiate animals from plants? And do humans, so unique in to Jonas’s thought, also have unique kinds of purposes?

Thirdly—and continuing on this theme of organisms—another set of questions arises. How does the organic fact of reproduction fit into this scheme? Reproduction, after all, is a central component of Life, yet Jonas seems to have neglected it in his philosophy of Life. Can his sense of organic teleology account for reproduction, especially considering that reproduction involves the purposeful begetting and care for offspring, a teleological activity which seems to overcome the isolated Dasein that Jonas so thoroughly critiqued? Fourthly, and finally, we may face a large question of ultimate value. Jonas, after all, posits that the coming of Life is an ontological revolution; value now enters the universe and hence so does ultimate goodness. We thus have an ethical object which we must respect. Yet what if the advent of Life were chaotic? What if the development of the universe is random? Thus, Jonas faces an important question of external purposefulness: Is there, for him, a purposeful development of the universe and of Life
such that the universe and Life are not random but meaningful, such that in them and their
development we can clearly see an ultimate, cosmological ground for the goodness of Life? Is
human life the goal and terminus of cosmological and evolutionary development? Even taking
into account Darwin’s theory of evolution, does Jonas still allow for some sort of purposeful
development of Life?

In short, Jonas’s establishment of an “ontology of value” leaves us with a plethora of
questions and issues surrounding his understanding of teleology. Hence, our main task in this
dissertation will be to work out and clarify his notion of teleology. We will do so by having each
individual chapter address one of the four types of questions discussed above. Therefore, our
next chapter, Chapter Two, will look at the questions pertaining to the historical development of
the philosophical understanding of teleology, especially as teleology is understood by such
seminal figures as Aristotle and Kant. By doing so, we will thus obtain a framework for the
general philosophy of teleology in which we can properly position Jonas’ thinking on final
causality. To that task of obtaining framework for the proper positioning of Jonas we now turn in
Chapter Two.
Chapter Two: Introducing Jonas’s Notion of Teleology within the General Philosophy of Teleology

In the previous chapter, we saw that Hans Jonas’s “ontology of value” hinges on the notion of teleology. (Teleology here refers to things existing or acting for the sake of goals. X is teleological, in its being or in its activity, insofar as it aims at some end, Y.) We likewise saw that numerous questions attend Jonas’s use of this notion of teleology. In short, as we move further into this dissertation, we face the following situation: what are Jonas’s exact views on teleology?

An initial glance at Jonas’s philosophy reveals his widespread attention to teleology. For instance, Jonas devotes two entire chapters to teleology: in The Imperative of Responsibility, he addresses “Ends and their Status in Reality,” and in The Phenomenon of Life he brings up “Cybernetics and Purpose.” Both chapters look at the teleology pertaining to organisms. Moreover, both chapters draw important distinctions between the teleology of artifacts and machines on the one hand and the teleology of organisms on the other. Jonas’s discussion on teleology thus continues and expands his philosophy of life which we examined in chapter one.

But Jonas’s attention to teleology is even broader. In his essay on “Evolution and Freedom,” Jonas looks specifically at how the goal-directed activity of animals differs from the goal-directed activity of plant. Jonas’s examination of “Gnosticism, Existentialism, and Nihilism” addresses how Gnosticism and Existentialism both remove purposes from the world. In his “Life, Death, and the Body in the Theory of Being,” Jonas explores how positing final causes in nature will bring the charge of anthropocentrism against his philosophy. Jonas, however, thinks that the scientific community’s attempt to banish teleology from their
explanations of nature reflects an unwarranted and *apriori* prejudice which cannot account for the very phenomenon of life it tries to explain. Jonas, in another essay, writes that “in the colossal predominance of mechanical contingency in the cosmic pre-history of life,” there still may have been a “secret teleology” guiding this “pre-history” towards the advent of life. Jonas’s philosophy of life thus presents a robust use of teleology. For Jonas, the very “intelligibility of life” hinges on avoiding “the reduction of teleological to mechanical causality.”

The secondary literature on Jonas attests to this same focus on teleology. Lawrence Vogel states that “teleology is indeed terribly important to Jonas: both teleology within organisms and a teleology of the whole of life (and even matter) itself.” Walter Szostak devotes an entire book to the notion of teleology in Jonas and Karl Popper. *Teleologie des Lebendigen Zu K. Popper und H. Jonas’ Philosophie des Geistes* examines current issues in the philosophy of biology, especially those pertaining to teleology, and then presents overviews of both Jonas’s and Popper’s understandings of how final causality obtains in organisms. (However, Szostak’s work on Jonas focuses in general on Jonas’s philosophy of teleology as compared to Popper’s and in particular on how Jonas’s thought relates to both cybernetic and systems-theory understandings of living things. Unlike this dissertation, Szostak does not examine in detail how Jonas’s philosophy of teleology pertains to his “ontology of value;” nor does Szostak attempt to situation Jonas’s philosophy of teleology in relation to Aristotle and Kant. In addition, Szostak does not address the issues of cosmological teleology or teleology and reproduction, which topics we will

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1 Ibid., 33-35.
3 *The Phenomenon of Life*, 25.
4 Lawrence Vogel, private correspondence with me, July 2014. Vogel is the leading Jonas scholar in the United States, whose work I have relied on for much of this dissertation.
discuss in chapters four and five of this dissertation. Nonetheless, Szostak’s presentation of Jonas is, in the main, a thoughtful and insightful analysis.)

Likewise, Christopher Groves has written two essays examining Jonas and Giles Deleuze on final causality.\(^6\) Furthermore, a recent collection of essays on Jonas includes a piece on “Examining an Indirect Argument in Favor of Teleological Naturalism.”\(^7\) Joseph Farrell’s work looks at how Jonas revives a teleological understanding of ethics.\(^8\) Finally, the field of autopoietic biology has given considerable attention to Jonas’s position on the teleology of organisms.\(^9\) Thus, a cursory glance at the secondary literature on Jonas reveals his concern for teleology.

Nonetheless, the task of properly and thoroughly addressing Jonas’s teleology cannot occur in a vacuum. In other words, the notion of teleology itself, above and beyond Jonas’s own position, has been understood in various ways throughout the history of philosophy. In short: to understand best Jonas’s particular philosophy of teleology we should examine the general philosophy of teleology which can frame our investigation of Jonas. Obtaining a comprehensive grasp of Jonas’s multifaceted use and understanding of teleology requires that we first present a general framework of the philosophy of teleology and see how Jonas fits therein.

Any such framing should begin with Aristotle. Aristotle, after all, provided a definition of final causes. In this vein, Aristotle lists final causality as one of the four causes which explain

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motion in the universe. In addition, he examined teleology in relation to ethics, politics, the philosophy of nature, and metaphysics. Importantly for Aristotle, then, a full examination of nature as intelligible reveals the real presence of purposefulness in the universe, a presence extending from particles to plants to planets. Aristotle, then, offers a robust and comprehensive analysis of teleology that will serve as a primary point of reference in our subsequent examination of Jonas’s own views on final causality.

Kant is the next philosopher we will address, as he gave considerable attention to teleology in his *Third Critique*. There, he discusses how a completely mechanical explanation is inadequate for understanding an organism as such. Rather, he contends that an organism must be understood as a natural purpose. In other words, final causality is a necessary heuristic device by which we can grasp the organism. In this way, Kant presents a philosophy of teleology that relates to Jonas’s own thought on the presence and operation of purpose in living things.

Moreover, there has been some important work done in this field of teleology within contemporary philosophy. In the wake of Darwin, teleology has been re-examined and reconsidered in important and far-reaching ways. For instance, some thinkers contend that Darwin’s theory nullified the validity of teleological explanation all together, while other philosophers argue that Darwinism has at least obligated them to rephrase teleological language (Ernst Mayr’s work on “teleomatic” and “teleonomic” being one such instance). Hence, there is a contemporary trend toward refining, narrowing, and reinterpreting teleological notions. Since Jonas likewise writes in light of Darwinism and addresses such current re-understandings of teleology, it will be important to lay out some central features of that contemporary analysis of final-causality. A study of contemporary teleology will provide a helpful relief, as it were, against which we can subsequently present Jonas’s own thought.
Thus, our task in this chapter is to see how Jonas’s philosophy of teleology fits within this larger history of the philosophy of teleology. Towards that end, this chapter will have the following organization. First, in part one, we will look at Aristotle’s thought on teleology. More specifically, we will look at topics including causal explanation, nature, the teleology of organisms—both in general and in terms of the specific goals of survival and reproduction—and teleology beyond organisms, i.e., the teleology of inanimate natural things, as well as the teleology of universal processes, such as the genesis and development of nature itself. Next, in part two, we will explore Kant’s position on teleology, addressing the same topics as did the discussion on Aristotle. In part three, we then move to consider the contemporary philosophy of teleology, again adhering to the same format of discussion. Finally, to conclude this chapter in part four, we will begin, in earnest, a discussion on Jonas’s thought on teleology as it relates to this larger framework. More particularly, we will focus on Jonas’s views on causal explanation and nature as they pertain to teleology. Doing so will then help set up the discussion in chapter three on Jonas’s ideas on organic teleology.

Part I: Aristotle’s Teleology

Aristotle on Causal Explanation and Teleology

Aristotle, in the Physics II. 3, wants to illuminate the “number and nature of the kinds of cause.”\textsuperscript{10} It is within this sketching of cause that Aristotle brings up the final cause, the cause “in

\textsuperscript{10} Aristotle, \textit{Physics} II. 3, 194b16.
the sense of end.”

Thus, to understand better Aristotle’s notion of final causality it is worthwhile to first reflect on his notion of causality in general.

In *Physics* II: 3, Aristotle examines mobile being and the process of change. But what would it mean to have knowledge of such things? For every sort of “physical change” Aristotle wants to illustrate their basic “principles” which constitute knowledge of such a change. We can use one of Aristotle’s own examples to demonstrate this. A statue being made is constructed from bronze; this bronze is the material cause, “that out of which a thing comes to be and which persists.” Next, there is definite shape and structure to this statue being made; here we have the formal cause, “the form or the archetype, i.e., the statement of the essence.” Likewise, the statue is made insofar as a sculptor constructs it; hence he is the moving or efficient cause, “the primary source of the change or coming to rest.” Finally, there is the goal or aim of the statue being made, e.g., representing a Homeric God; in other words, there is the *telos*, “‘that for the sake of which’ a thing is done.” In sum, ‘these are the causes of the statute *qua* statue.’

Hence, we see here the basic scheme of the four causes, those principles which when fully grasped constitute knowledge of mobile being.

A cause, in other words, helps us understand that thing. For example, a formal cause explains why the statue is shaped as it is; the final cause may explain why the statue was constructed in the first place. Moreover, one cannot claim knowledge of a thing unless he grasps

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11 Ibid., 194b33.
12 Ibid., 194b21.
13 Ibid., 194b23.
14 Ibid., 194b26.
15 Ibid., 194b29.
16 Ibid., 194b33.
17 Ibid., 195a6.
its causes. The four causes—which “exhaust the number of ways in which the term ‘cause’ is used”—are the necessary and sufficient conditions of knowledge of mobile being.\textsuperscript{18}

Does this imply, then, that the four causes are mainly epistemological as opposed to ontological, enabling our knowledge of things but not actually found therein? Aristotle’s response cuts across this apparent bifurcation between things and knowledge of them. So although causes do explain things for us in our knowledge of them, causes also play a role in the things themselves. The bronze and the shape of a statue really do affect the making of the statue. In fact, even if I fail to grasp such causes and fail to explain the thing in question, the cause is still operative. The cause exercises real efficacy and doing, and it plays a role as a contributing factor in the world. If \( X \) causes \( Y \), \( X \) really does something to \( Y \) and has a real effect in the world. In short: a casual explanation indicates some \( X \), which in a determinate, comprehensible manner, really contributes to \( Y \). Such is the case for all causes.

This Aristotelian position becomes clearer when we consider final causes. The \textit{telos} not only explains mobile beings of nature and their actions; the \textit{telos} is also really causally active in or on the thing itself. A \textit{telos}, then, is that which ultimately (or finally) explains why something is the case. A \textit{telos} is that for the sake of which something is or acts in determinate manner. For example, look at a house being constructed. The finished house explains \textit{why} the construction is being done, \textit{and} it casually orders the way in which the material is actually worked on by the builder.\textsuperscript{19} In this way, Aristotle posits that final causes play a real, integral role in things and their activity.

\textsuperscript{18} Ibid., 195a3.
\textsuperscript{19} See Ibid., 194a35-36 for a further discussion on house construction as illuminating teleology.
We also should say some words on the idea about the aim-beneficiary distinction.20 A *telos*, primarily, is the aim of an action. Look again at the example of the house construction. The main goal of the material being arranged is the completed house, which goal orders the manner in which the material is put together. Viewed thus, the completed house-as-shelter is the goal of the action and also is the aim of the builder. Nonetheless, there is also the person for whom the action is being done. This is the beneficiary of the action, i.e., the person who will live in this house. In short, teleology involves beneficial action done for a goal.21

Such is a brief overview of how a *telos* functions as a causal explanation for Aristotle. We now turn to flesh out the position, especially in relation to Aristotle’s views on nature.

**Aristotle on Nature and Teleology**

Here, we need to examine more deeply the notion of nature in order to best comprehend Aristotle’s view on teleology. Aristotle famously posited nature as the inner principle of motion and rest.22 In other words, for any natural X, its nature directs the manner of its change and completion. X, in this way, is a self-mover: its actions are accounted for by a principle intrinsic to it. To give more definite examples: a plant really grows of and by itself; a dog, of and by itself, really moves; and humans, of and by themselves, most certainly are self-moving movers.23 This is not to imply that natural things move in isolation from their environments or other factors. Rather, it indicates that natural things and their activity cannot be explained merely in terms of other factors, such as either their parts or external forces. On the other hand, the actions

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20 See, for instance, *De Anima* II.4, 415b4-5 and *Metaphysics* XII.7, 1072b2-3.
21 See *Physics* II. 2, 194a35-36.
22 Ibid., II. 1, 192b22.
23 See, for instance, Ibid, VIII. 4, 254b8-20 where Aristotle discusses how natural things have motion “derived from themselves.”
of non-natural things are not grounded intrinsically: a car is driven by a driver; an airplane is flown by a pilot. These non-natural Y’s and their extrinsically caused motion thus serve as a foil to the natural X’s and their intrinsically caused motion.

Moreover, for a natural X, X is not complete because it accords with some extrinsic standard or because it fulfills the desires of some external agent. X is complete because X has fulfilled its nature. Put differently, X has realized the fullness of the motion proper to it. Consider the following example: for me, a maple sapling may be complete, because it has the suppleness requisite for being made into a bow. But for the sapling itself, the state of completion comes if and only if it fulfills its nature qua maple tree regardless of how it may accord with external factors, such as my wishes. The sapling reaches a state of fulfillment when it grows into a full, healthy tree.

Also, for Aristotle, “art imitates nature.” The forms of art arise from nature. Indeed, art, as opposed to violence, is the articulation of nature. Similarly, it is not the case that in Aristotle, order is really and primarily present in art (artifacts) and then imposed on nature. Nature, for him, has an order which can be articulated, refined and or even perfected by art, but the order is found first and foremost in nature and then in art. In which case, the teleological structure seen above with artifacts (i.e., the statue) is a reflection of the teleology first present in nature. In fact, “artifacts can only be explained, according to Aristotle, on the basis of their relationship to natural things.” Human design in making and using artifacts follows from a more primary order in nature itself.

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25 Johnson, Aristotle on Teleology, 133.
One final point is required before proceeding. The issue of mind in nature plays a central role in discussions on teleology, especially today, and so we should examine briefly Aristotle’s thoughts on that topic. For Aristotle, it is clear that humans are the only beings in nature who possess rationality. However, Aristotle does not equate mind and rationality, in that the former can and does function without the latter. Mind, in fact, may mean something more like soul, in which case mind would obtain for all living things in Aristotle’s nature, insofar as all such things are ensouled and exist and act in fairly organized (could we say intelligent?) manners.  In short, rationality is found only in humans, but some sense of intelligence may be found in a broader spectrum of Aristotle’s nature.

Aristotle on the Teleology of Organisms in General

Now we turn to see how teleology plays out in Aristotle’s discussions on organisms. Here, we recall the earlier idea on the aim-beneficiary distinction. So our current question is this: what does this distinction look like in regards to organisms?

Aristotle uses the example of teeth to answer this question. In Physics II. 8, Aristotle argues that nature acts for an end. He mentions how some of the actions of nature seem to be non-purposeful. Excessive rain does not fall for the sake of ruining a farmer’s crop; rather, “that result just followed.” Could not nature then be ultimately purposeless? To counter this

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26 See, for instance, Nichomachean Ethics I. 7 and I.13 where he discusses how rationality is the specific difference which separates humans from other living things.

27 See De Anima II.

28 Physics, II. 8, 198b23. Aristotle draws a clear distinction between necessity, spontaneity, and chance—where results “just happen”—on the one hand and final causality on the other, where such results do not “just happen” in the same manner. For Aristotle, some things happen of necessity because of their material constitution. For example, rain falls because rain, composed of water, is heavier than air and so must descend down from the air and back to earth. Thus, for Aristotle, it would not be the case that rain falls for the sake of the growth of crops planted in the ground. In fact, rainfall, if excessive, can just as readily hinder or destroy the growth of crops. Thus, relative to the ends of agriculture, rainfall just happens, and does not happen for the sake of an end.
possibility, Aristotle looks at how the parts of an organism exist in a certain way, seemingly for the sake of the flourishing of the whole organism. Specifically, Aristotle looks at the example of teeth: most animals possess “front teeth [which are] sharp, fitted for tearing, [and] molars [which are] broad and useful for grinding down the food.”

Also, says Aristotle, such teeth arise “invariably or normally” in nature. That is, almost all animals have teeth which enable them to masticate easily and well. Moreover, non-purposefulness—such as with necessity, spontaneity, and chance, as discussed in footnote 28—does not occur with regularity. Thus, non-purposefulness cannot account for the regularity of functional parts, like teeth, in organisms. Moreover, says Aristotle, “things are either the result of coincidence [chance, spontaneity] or for an end;” he thus posits a comprehensive disjunction on how things “come about.”

In which case, regularly occurring functional organic parts, like teeth, insofar as they do not arise non-purposefully, must originate in nature for the sake of an end, i.e., chewing. Such purposefulness is the only coherent option to causally explain how teeth “come about” with an ordered regularity. In sum: Aristotle shows that the functional parts of organisms, when we analyze their genesis, indicate purposefulness.

What about spontaneity and chance? For Aristotle, spontaneity refers to cases where a non-rational agent acts in a way that seems to be for the sake of an end but actually is not. For example, a war horse may go to stream and drink. While the horse is at the stream, the army to which the horse belonged is attacked and destroyed. The horse, however, survives, since he was at the stream. It appears as if the horse went to the stream in order to survive the attack, but such is actually not the case. That result just followed luckily for the horse. The horse did not intentionally go to the stream for the sake of surviving the battle, because the non-rational horse has, for Aristotle, no such intentions. Appearances aside, there is here no telos of surviving the battle for the horse. Chance, moreover, is a further aspect of spontaneity. Aristotle’s example is the following. A creditor goes to a market where he meets his debtor. Now it would appear as if the creditor went to the market for the sake of meeting and being repaid by his debtor. However, appearances can be deceiving. The debtor went to the market in order to buy food. He did not go to the market with the intention of meeting his debtor. Rather, meeting and repayment just happened luckily for them. Here again we thus see the non-teleological structure of certain activities. So teleology is, for Aristotle, quite distinct from necessity, spontaneity, and chance.

Ibid., 198b25.

Ibid., 198b35.

Ibid., 198a4.
So, organisms manifest purposefulness. Nonetheless, a relevant question arises here: what about the issue of design? Recall what we noted above: art—which involves the intentional *design*, construction, and use of artifacts—imitates nature. Hence designed artifacts which function teleologically (e.g., silverware designed for the purpose of holding food and moving it into one’s mouth), follow from what is found in nature (e.g., the claws and paws of organisms). “The purposeful activity of minded men [e.g., art] is an imitation of nature.”\(^{32}\) Does that mean that organisms are themselves designed? For Aristotle, there is no intelligent designer who intentionally designs and makes organisms in a manner akin to how an artist intentionally designs and makes artifacts. Organisms in nature are just given as such in Aristotle’s cosmos; there is no further explanation of their genesis, either by a God or not by a God.\(^ {33}\) So the nature-artifact analogy of design breaks down on this point. Nonetheless, that analogy still holds in consideration of the way things exist and act in nature. In other words, natural things exist and act teleologically almost as if they had been designed to do so.\(^ {34}\) And humanly designed artifacts imitate the pre-existing teleological structure of this design-like final causality of organisms.

In sum, organic teleology aims, in a relatively design-like way, at certain ends. In which case, our next task will be to clarify more about these ends. Aristotelian organic ends are complex. For Aristotle, the end is indeed the limit, the stopping point of causal activity, as we saw above with the house-building. But an end, for Aristotle, is also a completion and perfection. From one perspective, the terminus of an organism is its death: e.g., a tree’s death is the end of its life. But for Aristotle, the death of the tree is not the *telos* of the tree, although that death is

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\(^{33}\) Or, for that matter, by evolution.

\(^{34}\) See *Physics* II. 8, where Aristotle talks about spiders making webs. The functionality and symmetry of such webs are obviously akin to human designed artifacts.
indeed an end. Rather, the *telos* of the tree is the completion of the tree as a tree, the perfection of the tree in its nature. In other words, the *telos* of the tree and its activities are “what is best” for the tree. Insofar as the tree is teleological, then the tree, because of its nature, is directed towards its own flourishing. Thus, the growth of tree roots is not for the sake of the tree’s death (its chronological terminus) but for the sake of the tree’s flourishing (its ontological end). “End as a translation of *telos* means what a thing will be that has become fully determined in its being . . . a condition of completion, perfection, fulfillment.”

In order to demonstrate the idea of the *telos* as fulfillment, consider the following case. A squirrel moving on the ground is not acting purposelessly. It acts for the sake of obtaining nuts to eat. The condition of eating healthy nuts, moreover, is perfective of the squirrel. Hence, we see a case where teleological activity is ordered ultimately towards flourishing, e.g., the flourishing of a well-fed squirrel. The dynamic state of fullness is the *telos* of a natural thing.

As such, the *telos* is “the defined.” In other words, the *telos* is the definite explanation by which we can causally explain what a thing is and what it is doing. The activity of putting bricks, mortar, and wood together seems haphazard and incomprehensible, unless we consider the completed house towards which that activity is ordered. A sapling, moreover, is a *young* tree, and the fully-grown tree, the *telos*, is the defined relative to which the sapling is young. The full tree serves as the paradigm by which we can explain the particular status of a growing tree as well as its activities.

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35 See, *Physics* II. 2, 194a30-31 where Aristotle criticizes the view of “of the poet” who said at his death that “he has his end.” Aristotle posits as “absurd” the idea that death is the *telos* of life.
36 Ibid., II. 3, 195a24.
38 Slade, “Ends and Purposes,” 83.
In this vein, a *telos*, for Aristotle, possesses some axiological significance. Consider Aristotle’s *Nichomachean Ethics* which begins with a discussion on how “all actions aim at some good.” For Aristotle, the *telos*—the ultimate good at which actions aim—is therefore the ethical standard by which we can judge such actions, as well as the states of character germane to such actions. According to Aristotle, human actions aim at different sorts of ends: there are proximate goals, such as a completed bridle for a horse, and there are ultimate goals, i.e., happiness. The proximate goals are in fact subordinated to and ought to serve the ultimate goal of happiness. Habitual behavior which tend toward this ultimate end—“the activity of the soul in accord with perfect virtue”—is consequently ethical, whereas behavior which tend away from this ultimate end is consequently unethical. Thus, the end of human life, happiness, assumes axiological significance as the standard for what qualifies as ethical virtue. Granted, this axiological significance is not universal, in the way that a Kantian Categorical Imperative is. Aristotle does not bring in absolute moral standards which govern human activity and human life. Instead, what governs human life, ethically speaking, is human nature, more specifically, the teleological fulfillment of that rational nature in the exercise of virtue. Hence the human *telos* possesses a relative, albeit still very important, axiological significance.

*Aristotle on the Teleology of Organisms: Growth, Survival, and Reproduction*

Here, we will first analyze Aristotle’s ideas on the teleology of organic growth and survival and then move to the teleology of reproduction.

To begin, we look at the growth of a tree. This growth occurs in every stage of the tree’s life: it grows from being a seed, to a sapling, and finally into a fully-grown tree. Moreover, the

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39 *The Nichomachean Ethics* I.1, 1094a1.
40 Ibid., bk. 13, 1102A 5
fully-grown tree is the *telos*, that for the sake of which the growth occurred in the tree. For Aristotle, do the climate, the soil, the water, etc. fully account for the growth of a new tree limb? These conditions do not externally push the growth of the limb, as is the case for necessary events. Rather, in order to explain causally this growth of organic parts, there must be reference to the fully grown tree. The fully actualized tree teleologically causes the sapling—with its parts and activities—to realize this fullness.

Nonetheless, relative to the currently growing sapling, what is the status of the fully-grown tree? We are here addressing the issue of backwards causation. Is there some X in a future time which exercises causal efficacy on the tree in the current time? Aristotle responds no. The fully-grown tree is the fullest actualization of the tree. The sapling is in potency to that fully actualized tree. Hence, by its very nature, it grows towards being a fully mature tree. It is not the case, then, that the fully mature tree in the future is something distinct from the sapling which causes it to grow here and now. Put in terms of form: the tree-form of the sapling is still in potency; the fully-grown tree is the complete actualization of that form. To be clear: the sapling and its tree-form do possess some actuality. The sapling is not pure potency, as is prime matter. The sapling is in a state of both actuality and potentiality. It has realized the first actuality of being a tree. Yet in regard to the second actuality—the realization of the relevant qualities and capacities of the tree as such in its nature—the sapling is in a state of potency. Thus, the fully formed tree is the fullest actualization of the tree’s potentiality and so is the end of the tree and its activities. Again, we see that the fully-grown tree, qua *telos*, is not something distinct from the

41 “Since ‘nature’ means two things, the matter and the form, of which the latter is the end, and since all the rest is for the sake of the end, the form must be the cause in the sense of ‘that for the sake of which.’” *Physics* II. 8, 199a32-34. Nature acts for the sake of an end, i.e., its own fulfillment in its form.
sapling which orders its growth but is rather the full expression of that sapling when it realizes completely its form.

We note here an important connection between formal and final causality. We see that the final cause is the full actualization of the formal cause. The fullness of X’s form is what causes not-yet-fully-developed X to continue developing. The goal of X’s development, in other words, is the fullness of the very same form which structures X as such, making it to be what it is. There is, for Aristotle, no future, not-yet-existing state of X which somehow causes right now the activities and growth of X. The form, inherent to X’s very being right now, is what causes X to act and grow as it does.

After all, any organism undergoes maturation: it does not begin fully formed but begins in a state of potency (e.g., a tree begins life as an acorn) and develops into a state of mature actualization (e.g., the tree becomes a majestic oak). We here can talk about a program which informs organic development. “In the context of organisms, there is no confusion in proposing as a cause of organic development an end oriented ‘genetic program’ which determines how one stage of an organism naturally develops into another, temporally later stage.”

To best understand this claim, we can reiterate a previous point: for Aristotle, an irregular cause cannot account for a regular occurrence. An irregular cause cannot account for the regularity of organic development (i.e., the fact that organisms most of the time develop in an ordered fashion towards their full potential). So, the ordered process of organic development is done according to some

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42 Johnson, *Aristotle on Teleology*, 169. Here we need to note an important clarification. A program, such as in a computer, is intentionally designed, made, and used by intelligent agents. Yet there is, for Aristotle, no intelligent designer who directly programs organisms identical to the way in which a computer programmer programs a computer. Also noteworthy is the fact that a code is made for and implemented into a computer directly by an external agent. For Aristotle, a natural form, no matter how program-like, is intrinsic to a thing and not externally put into it. In turn, codes tend to function in a set manner as programmed. Organic forms, though they function in a coherent manner, are not as absolutely determinate. Finally, a genetic code would be seen as purely material, whereas for Aristotle, a form is a principle co-relative to and distinct from matter. In which case, talk of a genetic code in Aristotelian organisms is informative but limited.
program-like facet of the organism’s form for the sake of the fully alive organism, and this
program-like facet of the form structures the organism’s maturation and orients it towards full
actualization and perfection according to its nature.

What about the end-state of organic survival? To start, we note that the teleology of
organic survival pertains to both things (i.e. organisms as whole entities as well as their
component parts) and to activities (i.e., behaviors done by these organisms through the use of
their parts). Let us return to the Aristotelian example of teeth in organisms. Teeth are teleological
insofar as they arise for the sake of mastication. Teeth show, in Aristotle’s worldview, that
organic parts, arising in nature, exist as they do for the sake of a purpose, i.e., chewing food (and
hence ultimately organic survival, since animals survive by the intake of masticated nutrition). In
ontological terms, organic things and parts in Aristotle’s nature are teleological in their
existence. Nonetheless, the activity of such things, e.g., mastication done by teeth belonging to
some animal organism, is likewise teleological insofar as it, too, is done for the sake of a
purpose, i.e., the survival of the organism who chews food. Furthermore, Aristotle discusses
other examples of how the actions of natural things are done for the sake of a goal. For instance,“leaves grow” on a plant “to provide shade for the fruit” of that same plant.43 In addition, such
plants “send their roots down (not up) for the sake of nourishment.” 44 Even in the case of non-
animal organisms lacking teeth does a basic teleological structure obtain in order to explain the
activity of such organisms. In short, this discussion on teeth and the growth of leaves and roots
shows how organic parts and activity are directed towards the survival of the relevant organisms.

43 Physics II. 8, 199a25.
44 Ibid., 199a28.
Organisms “are . . . focused on their own survival” and, through their teleologically structured parts, they perform “various activities in accordance with” that end.  

This last point segues perfectly into another idea we need to examine. We stated earlier that survival is a primary end of organisms. Yet we also saw that organic development occurs for the sake of flourishing (fully actualized, perfected) organisms. This notion of fully alive organisms is an important qualification to the position that survival is the end of organisms. Consider the case of a comatose patient. In a persistent vegetative state, the qualities which constitute the core of human nature—such as emotion and reason—would be found wanting. He would not be exercising moral and intellectual virtue, i.e., the proper use of reason in directing his appetites and rationality, insofar as he does not feel or think at all. In short, his mere survival is not perfective of him qua human and would not qualify as a human telos. After all, the telos of something is the particular perfection of that thing according to its nature. Thus, for a human being, the telos would involve the fulfillment of his nature as a rational animal who possesses and uses his reason well. The human telos is the contemplative life for Aristotle and most certainly not the life of a comatose patient. Analogously, the telos of a rabbit would be the fulfillment of its nature as such, the realization of the qualities specific to being a rabbit, above and beyond its mere survival. And even a plant can be said to have a telos beyond mere survival: after all, a withering bush indeed survives for some time, but it also fails to thrive, i.e., to flower and grow. In short, we see that for Aristotle, the fulfillment of the organism in its nature constitutes the proper telos of the organism. In other words, it is not mere survival which counts but survival in a flourishing, nature-specific way.

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46 See *Nichomachean Ethics*, X.7.
Such is an overview of the first basic end of organisms, i.e., kind-specific flourishing.\textsuperscript{47} Now we move to examine the second basic end, reproduction. Aristotle posits that it is not merely the flourishing-survival of the individual which is important but also the survival of the \textit{species}. That is, an organism strives to reproduce members of its own kind. Its activities are oriented beyond merely its own flourishing and directed as well towards the genesis, survival, and flourishing of offspring who perpetuate the species to which it belongs. As Aristotle says in his \textit{De Anima}: “Since it is right to call things after the end they realize, and the end of this soul [i.e., the nutritive type of soul possessed by all organisms] is to generate another being like that in which it is, the first soul ought to be named the reproductive soul.”\textsuperscript{48} In addition, organisms, insofar as they reproduce offspring, imitate, in a manner specific to their status as terrestrial beings, the perfection of the divine. Reproduction is thus a primary end for which organisms exist and act as they do, insofar as all organisms possess such reproductive souls. Aristotle likewise talks of reproductive parts of organisms, such as the seed, the eggs, the testicles, and the womb.\textsuperscript{49} These organic parts, much like teeth, are by their very nature oriented toward a \textit{telos}, in this case reproducing offspring of the same kind.

In this way, the organism, according to Aristotle, participates in immortality. The organism, by its fecundity, comes as close as possible to the perfection of heavenly bodies. “Just like the . . . stars and elements . . . perpetuate their existence eternally and thus manifest the divine aspect . . . organisms, too, exist for the sake of . . . eternal existence. [However,]
organisms are unlike stars in that they must reproduce in kind in order to survive eternally." For Aristotle, any organic X cannot be fulfilled teleologically unless it participates in some way in reproducing its kind.

Aristotle on Teleology Beyond Organisms

So, what is Aristotle’s position on the teleology of non-organic realities such as the elements and the celestial bodies? To start this discussion, we need to reiterate the prior idea of imitating the divine. For Aristotle, the idea of imitating the divine is a central component of the cosmos, especially the motion of things. That is, the most perfect divine being—i.e., the Prime Mover—does not itself move, as it is in a state of full actualization. Moreover, other bodies strive to imitate that fullness and achieve such actualization. Hence the higher celestial bodies perform continuously orbital motions, which is their share in the divine. Their being in orbit is in a way their proper place, i.e., their best position relative to the perfect state of the Prime Mover. And this imitation of the divine extends throughout the entire cosmos for Aristotle and accounts for motion in the first place in the universe. All things strive as much as possible to achieve the perfection proper to their status.

Look at earth, air, fire, and water, the four elements for Aristotle. Each element possesses its own specific nature. Thus, elements, according to Aristotle, do not just move according to the forces external to them. Instead, qua natural, there is a motion proper to these elements.

50 Johnson, *Aristotle on Teleology*, 174. (More will be said subsequently on this issue of divine imitation in Aristotle as it pertains to teleology)
52 See *Metaphysics* XII. 7, 1072b for a discussion on how the Prime Mover, qua being at perfect rest, is the desired object which initiates motion and stands as its fulfillment.
53 See *On the Heavens* III.1, 298a29-32 for a discussion on natural substances, such as elements and physical bodies, beyond organisms.
54 To be clear: non-living natural substances, for Aristotle, are not self-movers the way that organisms are. See Johnson, *Aristotle on Teleology*, 140-145, on “Terrestrial Elemental Locomotion.”
nature of fire is to move upwards. In which case, elements are akin to organisms: just as an organism is, by nature, directed towards its completion, so, too, is an elemental body. If so, then likewise can these elements realize a state of completion. Aristotle talks about how elements have their own “proper place.” Fire, for example, would be complete when it reaches a place high in the heavens. In other words, there is a specific telos for each element, i.e., being in its proper place. Furthermore, recall that for Aristotle, nature orders it such that natural things possess the characteristics suited for the realization of their telos. Consequently, natural elements are such that each is well suited for the realization of its individual telos. Hence, elemental activity is teleologically oriented towards proper places as the end of these elements.

The same holds for bodies composed of such elements: they also have ends, i.e., their “proper place.” Thus, according to the nature of the rock qua heavy, it is oriented towards the center of the earth, i.e., the proper place for heavy objects. There is, therefore, something goal-directed about the motion of a rock falling downward. This idea may of course strike us as odd: rocks (and their motion) do not seem to be goal-directed towards any better position. Rocks fall merely because of external forces: gravity, the wind, etc. And a rock atop Mount Everest is just as much “at home” as one on the bottom of Death Valley. But for Aristotle, the cosmos was orderly, imitating the divine, and thus rocks, within this ordered cosmos, likewise strive for the perfection proper to their status. However, unlike organisms they strive not for fullness of their natural life but rather strive for the realization of their natural place, i.e., the center of the earth. In so doing, they achieve their proper place—just like the celestial bodies in orbit do—and hence fulfill, as well as possible, their imitation of the divine. Thus, in Aristotle’s world view, rocks—

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55 *Physics* VIII. 4, 254b23: “the upward motion of earthly things and the downward motion of fire are unnatural,” implying that the downward motion of earthly things and the upward motion of fire would be natural.
56 Ibid., 255a3.
57 Ibid. Rocks, qua “heavy things” are oriented “down.”
just like elements and planets—have a proper place and exercise teleological motion towards that place. Since an ordered sense of nature informs all the cosmos, then the motions of all things in that cosmos possess some form of teleology.

One final aspect of this type of Aristotelian teleology bears mention here. For Aristotle, human communities, such as the family and the polis, each possess a proper telos. The telos of the polis, for instance, is the common good of the political community and its members. In this fashion, the polis is akin to an organism, but not identical to it (which makes perfect sense given Aristotle’s dictum that art imitates nature, in this case the art of politics imitates the nature of living organisms). The parts of the polis, like the parts of an organism, are arranged for the sake of the good of the whole. Political leadership, for instance, is a position (i.e., a part of the polis) meant to guide the citizens well. Moreover, the activities of the polis, like the activities of an organism, are directed towards a telos, in this case the telos of common good. The election of a leader or the trying of a corrupt citizen in court are done for the sake of the common good. In fact, just as an organism becomes sick when its parts or its activity do not tend towards its telos, so, too, does a polis become sick insofar as it cannot or does not work for its proper end. Hence a tyrannical polis, where the ruler does not care for the welfare of his citizens but is solely interested in expanding and maintaining his power, is a sick polis. In short, Aristotle’s politics—like the rest of his philosophy—presents a robust teleology.58

Summary and Transition

For Aristotle, the telos is one of the main causal explanations by which we gain scientific knowledge. As such, it answers important why questions. But the telos is no mere heuristic

58 See Johnson, Aristotle on Teleology, 143. “The part-whole teleology of organisms is of direct significance in the explanation of human life and the city, which is conceived of as an organism.”
device; a telos is an actual cause in the world for X, its parts, and its activities. Moreover, the telos is connected to nature. In other words, insofar as nature directs something, nature directs that thing towards its telos and the fulfillment of something’s nature is the same as its telos. Put differently, natural, organic things are teleologically ordered towards the full actualization of their natural form. Finally, Aristotle seems to allow for some sense of mind in nature.

Likewise, organisms are structured for the sake of their specific end: animals are fitted with suitable teeth, plants grow leaves to shade fruit, etc. This ordering is akin to design, but not commensurate with it. Finally, this end of organic things is their completion and perfection and not just a terminus, and in the case of human nature, this end assumes an important, though limited, axiological significance. Moreover, organisms—in the parts and their activities—are oriented teleologically towards the goals of growth, survival, and reproduction. This survival as end, furthermore, is not survival as such, but survival as a full member of its kind. The issue of kind also arises with reproduction as end: organisms act for the sake of reproducing members of their same kind, and in so doing imitate the eternality of the divine.

Finally, Aristotle presents a teleology beyond organisms. Elements have natures and act for natural ends, their proper place, as do bodies composed of such elements. Celestial bodies are end-directed, too: they act for the sake of realizing an orbit proper to their nature. In this way, such terrestrial and celestial bodies imitate the eternally perfect rest of the divine Prime Mover. There is, as well, a telos of a human community, the common good.

Such, in brief, is Aristotle’s view on teleology. As we proceed, we should bear in mind Aristotle’s causally explanatory, natural teleology in his ordered universe. Such will serve as a good relief against which to view Kant’s notions of teleology, to whose notions we now turn.
Part II: Kant on Teleology

Immanuel Kant’s philosophy, especially his *Critique of the Power of Judgment*, reinvigorated the topic of teleology in the wake of modern thought. But did Kant reinvigorate it back to the same robustness of Aristotle? Is Kant’s teleology similar to Aristotle’s? This part of Chapter Two will address these and related questions about Kant’s theory of teleology. To that end, we will employ the same basic schema used above in analyzing Aristotle’s teleology: causal explanation and teleology, nature and teleology, organic teleology in general, organic teleology in regards to growth, survival and reproduction, and teleology beyond organisms.

However, even before we address Kant’s notions of causality and explanation, we should note some important features of Kant’s overall philosophy. First, Kant’s main work on teleology, *The Critique of the Power of Judgment*, follows upon and attempts to complete his prior critical works. In short, while the *Critique of Pure Reason* outlines the general conditions for the possibility of experience (e.g., space, time and categories like substance and causation), *The Critique of the Power of Judgment* addresses the particular conditions of particular experience (e.g., “more concrete concepts of causation such as the concept of crystallization and reproduction.”)\(^{59}\) Moreover, this process of specification, according to Kant, requires the use of judgment. For Kant, “judgment in general is the faculty of thinking the particular as contained under the universal.”\(^{60}\) And, for Kant, judgment occurs in either one of two modes: determining

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or reflective. For our purposes, we focus on reflective judgment.\textsuperscript{61} In such a judgment, “only the particular is given, for which the universal [concept] is to be found.”\textsuperscript{62} Reflective judgment, in turn, is divided into two types, aesthetic and teleological, the latter of which we will address subsequently. In short, for Kant, the discussion on teleology occurs within a larger discussion on judgment and the manner by which judgment informs specific experience. Unlike Aristotle, Kant is not primarily addressing mobile being or the nature of such mobile being. Rather, in addressing teleology, his central concern is the faculty of judgment and the way in which experience is structured according to that faculty.

This last point segues into a second important feature of Kant’s thought which we need to address before proceeding. The structuring of experience, as we will see shortly, involves the experience of nature. In Kant’s thought, natural things are thus experienced according to the mode of reflective judgment. An apt concept is found under which the particular given of nature can be subsumed. Put more simply: a natural thing is judged “as if” it accorded with a certain concept, which concept gives intelligibility to that thing. Hence, Kant’s teleology, by which concept natural things are rendered intelligible, is often thought of as a heuristic device.\textsuperscript{63}

\textit{Kant on Causal Explanation and Teleology}

For Kant, “to explain is to derive from a principle.”\textsuperscript{64} As such, an explanation, for Kant, involves necessity. “Explanation requires a principle which fixes the order of the series in the

\textsuperscript{61} To talk briefly about determining judgments: such a judgment “subsumes given particulars under concepts . . . which are themselves already given.” Hannah Ginsborg, “Kant’s Aesthetics and Teleology” in The Stanford Encyclopedia of Philosophy. (http://plato.stanford.edu/entries/kant-aesthetics/, 2013)


\textsuperscript{63} See, for example, Hannah Ginsborg “Kant’s Biological Teleology and its Philosophical Significance,” in A Companion to Kant, ed. Graham Bird, (Malden, M.A.: Wiley-Blackwell Publishing, Ltd, 2006): 460. Teleological judgments “play only a heuristic role in our understanding.”

\textsuperscript{64} Critique of the Power of Judgment, §78 5:412.
change as necessary.” The derivative principle serves as a necessary feature which determines the thing being explained. In which case, for event X, the explanation of X will refer to its necessary antecedent causes. If X is a thing rather than an event, furthermore, then the causal explanation of X does not refer to X’s nature but rather refers to its parts and the forces interacting between said parts. “This causal nexus is what called that of the efficient causes.” It is also a reduction of the *explanandum* to its parts and the interactions of such parts. Another term for this could be mechanical explanation. That is, X is explained as if it were a machine with interacting parts and forces which account fully for its changing and activity. Thus, for our discussion on Kant, we see that a causal explanation is a positing of the necessary, efficient causes which account for the effect according to a mechanistic framework.

Importantly, Kant does not fit teleology into this mode of explanation and so differs from Aristotle. Rather, Kant, from the start, distances teleology from usual casual explanation.

So how exactly does Kant discuss ends, if ends are not explanations? In general, “an end is the object of a concept insofar as the latter is regarded as the cause of the former (real ground of its possibility); and the causality of a concept with regard to its object is purposiveness (*forma finalis*).” If I have a concept and then the object of my actions follows from that concept, I act teleologically. Kant posits that artifacts, as designed, constructed, and used by humans, are obviously teleological. A watch, for instance, therefore, manifests teleology in several different ways. First, the watchmaker has a plan, a concept, for his watch and then constructs it; the watch,
following from the concept, is teleological. Moreover, the watch-owner has a plan, a concept, for the same watch once constructed: he plans to use it for telling time. His looking at the watch is likewise teleological. “We count something as an end if we regard it as produced by the causality of a concept, which implies that it was produced as a result of design.”

Moreover, this concept-rooted mode of activity is not commensurate with the necessary efficient causality described above. In short, there is no need for one to posit, in the first place, the concept of a watch; the concept is contingent. In this regard, the concept is not a necessary entity of our experience. Also, the instantiating of that concept (i.e., the constructing of the watch) is also contingent; a lack of materials may prevent its construction. In any case, the concept does not ground the action (or object) in the exact same manner as antecedent efficient cause W grounds X. Given W (and the causal chain informing it), X must occur; however, there is no “must occur” for the watch. Teleological action, then, is contingent and so differs from efficient causality. Moreover, teleological activity, for Kant, does not lend itself for ready explanation, as did W and X from above (i.e., given W and X must occur). In fact, as we will see soon, Kant does not think natural teleology can be explained at all, and any account we give for such teleology is not, properly speaking, an explanation. To explain is to enumerate the necessary causes (conditions) for something, but where there is no such necessity, there can likewise be no explanation.

Kant on Nature and Teleology

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70 Hannah Ginsborg, “Kant’s Biological Teleology and its Philosophical Significance,” 457.
71 One could call a teleological account an “intelligible rendering,” as does my friend, S. Matthew Stolte.
For Kant, nature, which is “the complex of the objects of sense,”\textsuperscript{72} is informed by our judgment; “nature conforms to our power of judgment.”\textsuperscript{73} In this way, nature consists of entities and laws, which fall under the more specific empirical forms of judgment (as opposed to the more general forms and categories of understanding and intuition). Natural things are therefore law-governed: they are subsumed “under the concept of a nature,” and so “particular given laws” are brought “under more general ones.”\textsuperscript{74} Of course, as we shall see, one such central concept is purposiveness. For now, however, it is important to note that nature, for Kant, is an empirical reality conforming to our judgments and laws.

Furthermore, we should look at the issue of freedom. For Kant, rational freedom is transcendent of law-governance and so is beyond nature. A free X is outside nature; a non-free X is inside nature. Human beings, qua free, rational agents, are outside the scope of nature, a position clearly distinct from Aristotle’s.\textsuperscript{75} What makes Kant even more distinct from Aristotle is also the following. Aristotle posited that art—with its design and teleological structure—imitated nature. Human minded artistry followed upon the pre-existing formal structure of nature. Given both his Transcendental Idealism, as well as his aforesaid bifurcation of nature and freedom, Kant, however, posits that minded human artisanship and design are beyond nature. The watchmaker and his activity, as such, are not readily analogous to natural things and their natural activity.\textsuperscript{76} Put differently: humanly designed art is not the articulation and perfection of nature, but something which arises in the sphere of human mindedness and freedom beyond nature.

\textsuperscript{72} *Critique of the Power of Judgment*, 61.
\textsuperscript{73} Ibid., 20:202.
\textsuperscript{74} Ibid.
\textsuperscript{75} An important caveat must be made. As we will see shortly, Kant does think that humanity is both part of and transcendent of nature. This unique position plays a central role in Kant’s understanding of a final and ultimate end to nature itself. So we should not think that Kant totally sunders humanity from nature.
\textsuperscript{76} See *Critique of the Power of Judgment*, § 65 5:375.
Yet despite nature’s contrast with freedom, Kant does not see nature as fully governed by necessity. Now a Newtonian law of nature, e.g., his second law, is inviolable: a massive body will always and everywhere react when encountering a second massive body. However, natural things, unlike such laws, do exhibit contingency. As Paul Guyer states: “given the insuperable difference between our intuitions and our concepts,” it follows that our “understanding of reality [of nature]” will always be conditional. Thus, even qua law-governed, Kant’s nature is not a total mechanism, operating in a constant (and constantly comprehensible) manner. Consider the following example of a contingency obtaining in a law-governed natural situation. A bird’s flight is governed by the law of gravity. Thus the bird cannot be too massive nor have its wings too weak, which could prevent its flight; we also know that the bird’s activities must accord with that law. Nonetheless, the following (and our knowledge of them) are still contingent: whether the bird flies at all in the first place, how fast it flies, how far it flies, where it flies to, the manner (direct or meandering) of its flight, and the recurrence (or lack) of its subsequent flights. So natural, living things, for Kant, despite their being law-governed, are not totally necessary nor are they tantamount to mechanical things.

In short, Kant has a middle-way approach to nature. Nature, for Kant, is not random or chaotic just because it is not mechanical That is, Kant’s nature is not merely the set of efficient causes, acting in a totally predictable way, according to universal (Newtonian) laws that govern the motion of things. In short, Kant is quite clear to distance himself from the Epicurean view of nature as organizing accidentally from chaos, which is one extreme position. On the other hand, as we see, Kant does not embrace nature as absolutely necessary (mechanistic). He also rejects the Spinozist view that nature must act as it does, insofar as it is a property of God’s and follows

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of necessity from Him and His intentions. Here we see Kant’s preferred middle ground between reductionist, random accounts on the one hand and necessary, God-laden, Intelligent Design accounts on the other.\textsuperscript{78}

So what could Kant say about the issue of mind in nature? After all, although Aristotle denied to nature the status of being designed, he nonetheless believed it to be “minded” to some degree. Does Kant make a similar allowance? The answer is both yes and no. Kant, as a Transcendental Idealist, is discussing the conditions by which we, with our discursive intellects, experience natural things. Nature will of course follow from such basic conditions that inform our judgments. Nature, in other words, will manifest rational structure, precisely because nature as experienced is given according to the modes of such structure. On the other hand, however, Kant also denies what he terms the “realist” position concerning natural ends: i.e., that such ends act intentionally, with reason, the way that persons do; natural ends are not, for Kant, intentional agents who exercise reason in a manner similar to persons.\textsuperscript{79} The growth of a tree is not a minded activity in the way the painting of a tree by an artist might be. In short, Kant, like Aristotle, allows for a certain, qualified mindedness in nature, although Kant’s understanding thereof differs from Aristotle.

\textit{Kant on the Teleology of Organisms in General}

To start this discussion, we first need to refer back to the analysis of mechanical explanation and teleology. Mechanical explanation yields comprehensive knowledge of something, whereas a teleological account is not even an explanation, properly speaking. For

\textsuperscript{78} See \textit{Critique of the Power of Judgment} § 73 5: 393.
\textsuperscript{79} See Ibid., § 74 5:396.
example, a mechanical explanation can illuminate the nature of matter. Here, “the concept of matter is reduced to nothing but moving forces.” Likewise can a mechanistic model account for the make-up of an organism: in “an animal body, many parts could be conceived as consequences of merely mechanical laws (such as skin, hair, and bones).” Here Kant addresses the possibility that we can fully account for living nature in terms of its necessary laws. Put differently, he indicates the apparent possibility of a mechanistic explanation of organic nature.

Yet as Kant realizes, such appearances are deceiving. To see why, it is important to recall Kant’s Transcendental Idealism and specifically his position on judgment. Judgment, according to Kant, is connected to the notion of a discursive intellect: such an intellect cannot grasp a complete intuition of something but can only grasp that thing by certain judgments about it. Now what might such a discursive intellectual judgment say about natural things? Such “judgments . . . ascribe ends or purposes to natural things . . . [and] characterize them in purposive or functional terms.” In other words, a teleological judgment concerns natural things. But it does not merely regard them but regards them as teleological. Our experience of nature, bounded by the faculty of reflective judgment, thus involves the experience of teleological things therein.

Given this fact about judgments, we see, moreover, that when we experience living things of nature, “a reversal of the mechanical order of cause and effect” obtains. We experience in nature living things that are whole entities that as such account for certain effects. In other words, we see whole entities (organisms) whose activity and change cannot be fully reduced to the interaction of independent parts and forces, as is the case with a mechanical explanation. Doing

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82 Hannah Ginsborg, “Kant’s Aesthetics and Teleology,” 3.
83 Kolb, “Kant, Teleology, and Evolution,” 13.
justice to our experience requires that we do not reduce away the things of our experience. In which case, it is not merely that some things of nature could be accounted for by non-mechanistic means. Rather, it is the case that holistic, living entities of nature, as such, cannot be accounted for fully by mechanical explanation. In order to save the phenomenon, as it were, it is necessary to seek out an account over and above mechanistic explanation. This is to say that Newton’s laws of motion are insufficient to explain what an organism is and how it acts. The organization of the organism, in which it is both cause and effect of itself, is not reducible to Newtonian notions of causality. Therefore, as Kant famously says, there cannot be a Newton of a blade of grass.\(^{84}\)

Let me say a bit more on this position. “Given the constitution of our understanding,” we experience organisms in a certain way, i.e. teleologically.\(^{85}\) In that I experience some organism, X, I experience something over and above a mere mechanism. In fact, were I to attempt to posit X qua mechanism, I would no longer be experiencing X as such. Moreover, for Kant, this mechanistic modeling of nature is most manifest in Newtonian thought. Thus, insofar as organic things cannot be reduced to mechanism, then likewise is Newtonian thought incapable of offering a full description thereof. It is for this reason Kant issues his statement that there can be no Newton of the grass blade. In other words, “a mere mechanism of nature . . . will no longer satisfy us.”\(^{86}\)

We should examine in more detail the way in which ends obtain in nature. X “exists as a natural end if it is cause and effect of itself.”\(^{87}\) In fleshing out this definition, we see that for something to be an end, its “parts . . . [can be] possible only through their relation to the

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84 *Critique of the Power of Judgment*, § 75 5: 400.
85 Ibid., § 80 5: 417.
86 Ibid., § 66 5:376.
87 Ibid., § 64 5: 371.
whole.” 88 The legs of a chair, for example, are such only because they relate to the whole chair and its purpose of allowing someone to sit. 89 With that consideration in mind, Kant then posits an important modification concerning organisms and their teleology. A chair, as we just saw, has legs which are ordered towards the whole chair’s functioning. However, the chair, including its legs and their being ordered towards the whole, are the result of the design and construction of a chair-maker. The parts of an artifact are for the sake of the whole precisely because an external rational agent intended and made them so. In contrast, in natural things, e.g., trees, there is no external, rational agent ordering their parts in proper relation to their wholes. Rather, instead of an external agent, the natural living thing properly organizes itself, by itself, for the sake of itself. Such organisms, qua teleological, have “parts [which] combine themselves into the unity of the whole by being reciprocally the cause and effect of another’s form.” 90 The roots, bark, and limbs of a maple tree are what they are in virtue of being oriented towards the whole maple tree. The parts exist and act for the sake of the whole tree. In this manner, the parts are both a cause of the whole (e.g., the roots and their collection of nutrition help cause the continued existence of the whole tree) and an effect of the whole (e.g., those same roots can only exist as part of a whole tree). And this basic scheme holds for all such parts of the tree: leaves collect rain water and perform photo-synthesis, bark provides protection for the tree, and limbs house the aforesaid leaves; likewise, all such parts exist only as belonging to a whole tree. 91 Hence they render “a whole” on account of their own “causality.” 92 The parts are as such and act as they do for the sake of the whole to which they belong.

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88 Ibid., § 65 5: 373.
89 Ginsborg’s “Kant’s Biological Teleology and its Philosophical Significance,” uses the example of a chair. However, all multi-faceted artifacts manifest this part/whole relation.
90 Critique of the Power of Judgment, § 65 5: 373.
91 See Ibid., § 64, 5:371-72.
92 Ibid., § 65 5: 373.
So a holistic, non-reducible, non-mechanistic organism is a natural purpose for Kant. I think we may see a similarity here to what Aristotle talked about with form. Aristotle addressed teleology through the lens of species-specificity: the telos of X was specific to the species to which X belonged. In other words, X’s form informed its teleological structure: X’s telos was governed by its form. With Kant, we see that something over and above the parts serves as a natural purpose, something which holds said parts together and directs their mode of being and action. In fact, Kant is clear that a natural thing like an organism is united in a way different from an aggregate of sand. The natural thing is held together and exercises the “self-help of nature” far beyond what aggregates do.93 One could say, therefore, that the natural thing possesses a form which actively unites and directs the parts of that thing towards itself as the primary purpose.94

Here, we need also to recall the notion of concept-rootedness discussed above. An end, in general, is such because it is grounded in a concept. How does that general sense of concept-rooted ends play out with organisms? For Kant, the structure and activity of a natural end is teleological insofar as such structure and activity obtains as if it were the result of intentional agency. An artificial teleological object, the watch, is made intentionally and as a result of an antecedent concept. A natural end, e.g., a tree, is not the result of such agency and design; there is no tree-maker who directly instantiates the antecedent concept. However, the tree, as we experience it, is akin to a watch in terms of its teleological structure and activity. In which case, it is as if there were some antecedent “tree” concept which grounds the tree similar to how the “watch” concept grounds the watch and its operations. Thus, the concept-rootedness of natural, organic ends is that such ends, in their parts and activity, exist as if they were rooted in a

93 Ibid., § 64, 5:372.
94 See Ibid., § 65 5: 374.
concept. The teleological structure of a natural thing, in other words, is a heuristic which informs the manner in which such things exist in nature as experienced.

That said, we should turn to address the issue of design in more detail. Natural things, qua organized wholes, are, as we have seen, purposes and thus are akin to designed human intentions and artifacts. As we have also seen, such natural ends exist as if they had been grounded in a concept, similar to how artifacts are so grounded. Nonetheless, Kant quickly qualifies this similarity. “Strictly speaking, the organization of nature is . . . not analogous to any causality that we know.”95 In other words, natural processes like development or reproduction do not occur according to the same mode of causality as do activities grounded in reason. It would not be apt to say of Kant, in an unqualified way, that natural things are designed. Activities of nature, such as growth and reproduction, do not exactly follow from concepts, although we judge them as if they do. Even a rational person, equipped with concepts, cannot cause himself to grow on account of his concepts. Qua natural, even rational agents cannot designedly ground their purposefulness in concepts the exact way that artifacts are grounded.

So the similarity between the purposes of nature and those of a rational agent is a qualified similarity. But there still is some such similarity. Kant, after all, talks about how animals and humans fall under the same genus “as living beings.”96 Thus, there can hold “some comparison of similar mode of operation,” e.g., the artistic actions of a person and the building of dam by a beaver.97 After all, the natural organized being is a purpose. What it does and how it is structured are purposeful. In our reflective judgment we experience it as such. And the concept-rooted actions of mental activity and artifact-making are likewise purposeful. So like

95 Ibid., § 65 5:375.
96 Ibid., § 90 5:464 n.
97 Ibid. NB: The comparison is not that the beaver uses “reason” like the human artisan does but rather that the beaver may, like the artisan, use “representations.”
Aristotle, Kant says that nature is akin to designed artifacts, although as noted earlier, he does not see human artisanship as being a ready off-shoot of natural teleological activity.

In discussing Kant’s notions of natural teleology, we also have to look at the issue of normativity, insofar as it was likewise an important part of our analysis of Aristotle’s philosophy of teleology. For Kant, “teleological judgment compares the concept of a product of nature as it is with one of what it ought to be.”\textsuperscript{98} In other words, to judge natural X teleologically is to judge it against the standard of what X should be. According to Ginsborg’s interpretation of Kant, a natural thing as a purpose is something under the “constraints” of normativity.\textsuperscript{99} As a natural end, a dog, is norm-governed. In which case, three-legged Fido fails to meet the norm of being a fully healthy, four-legged dog. To be clear: Kant’s view is that the purposeful X is norm-governed, not that the X, qua end, is the norm. Such a position stands distinct from Aristotle, for whom the natural thing, qua end, is the norm. Likewise, Kant is distinct from Aristotle in that he does not relate teleology to ethics. The telos of a purpose qua natural thing is not an ethical standard for Kant. Rather, Kant sees ethics as being rooted in duties which derive from the basic principles of practical reason, not from human nature or the human telos.\textsuperscript{100} In short, in terms of normativity and “axiological significance,” Kant’s teleology is quite different from Aristotle’s.

\textit{Kant on the Teleology of Organisms: Growth, Survival, and Reproduction}

To start, we reiterate the prior point that organisms are whole-part unities. Kant thus indicates “a relative unity among the functional parts of an organism” such as a tree.\textsuperscript{101} This Kantian idea of interconnected parts and wholes, of course, relates back to his prior claim that for

\textsuperscript{98}Ibid., X, 20:240. Original emphasis removed for the sake of conformity with university standards.

\textsuperscript{99}Hannah Ginsborg, “Kant’s Biological Teleology and its Philosophical Significance,” 464.


there to be a natural purpose, there must be a proper part-whole relation. Understood in terms of space, this is here a teleology in which all the parts exist and act for the sake of the existence of the tree in that same space.  

Kant also examines a sense of individual organic teleology understood in terms of time, namely growth. For instance, a maple sapling grows over time into a full maple tree. We see here an “increase in magnitude” which “is entirely different” from an increase in “accordance with mechanical laws.” Unlike a machine, the tree does not become larger by the addition of matter brought to it by some external force. Rather, the “plant . . . prepares the matter which it adds to itself.” That is, it takes in “material from nature” for the sake of “its nourishment” and growth. This process occurs both as a result of the tree and for the sake of the tree. In other words, the tree is, again, both the cause of itself and the effect of itself. The tree’s growth is not the just result of external factors. Rather, in a manner “peculiar to its species,” the tree becomes larger. The effect of the growth, i.e., the full tree, is thus commensurate with the cause of the growth, the same full tree. In this way, the tree’s growth is purposive, done for the sake of the tree itself. Its parts and activities are directed towards its maturation.

Here, we should clarify an important point about organic purposefulness. After all, we saw earlier that for Kant, an organism, as such, is a purpose. If so, how then could an organism’s activities be purposeful—i.e., for the sake of some purpose—insofar as that organism, call it X, already is that purpose and there is no need for X to achieve what it already is? In response, we see that X, qua organism, is not static. X, in order to be, must continue to sustain itself. A natural

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103 Ibid., § 64, 5:371.
104 Ibid., emphasis mine.
105 Ibid.
106 Ibid.
end such as X, after all, exhibits the “readily observable feature” of maintaining itself.\textsuperscript{107} X itself may indeed be the relevant purpose here, but this purpose must be maintained; actions ordered towards that maintenance qualify as purposeful. We can think here of a deer, for instance. Its legs must run, its mouth must chew, its intestines must process food, and a whole host of other part-activities must occur for the deer to stay alive. Such activities of the parts are done for the sake of the continued survival of the deer. Likewise, the spatial and temporal teleological activities discussed above are relevant: the ordered part-whole relation of an organism and its maturation are ultimately oriented towards the organism being fully alive. Not mere static existence but rather continued survival of the whole is the relevant purpose here. Hence, we see that for Kant—implicitly at least—one end of organic parts and activities is the survival of the relevant organism.

But it is not merely the survival of the individual organisms which is relevant. For Kant, there is also the topic of teleology and reproduction. Here, the issue of species becomes pronounced. Kant states that in reproduction, the tree is both cause and effect of itself.\textsuperscript{108} Evidently, a maple tree, in reproducing, does not cause the exact same individual maple tree. What the tree does cause is another member of the same species. Consequently, when viewed from the perspective of the species, maple, tree A’s reproducing of tree B indicates the continuation of the species. In other words, it indicates that the species is both cause (in the case of A) and effect (in the case of B) of itself. Moreover, such reproduction, like growth, is not fully explainable in terms of physics. The generation of a new member of the same species does not


\textsuperscript{108} \textit{Critique of the Power of Judgment} § 64, 5:371.
involve the re-arrangement of pre-existing parts, for example. Thus, the tree’s act of reproduction is done for the sake of “continuously preserving itself, as species.”

Such is a brief overview of Kant’s understanding of the teleology of organisms. Granting, of course, the important distinctions already mentioned, we see with Kant something akin to what we saw with Aristotle: for both philosophers, organisms are inherently teleological, both in their parts and in their activities. Moreover, both thinkers see growth, survival, and reproduction as the exemplar teleological activities of organisms. Kant, therefore, continues the Aristotelian tradition of positing a robust organic teleology.

*Kant on Teleology beyond Organisms*

Is Kant like Aristotle in positing that rocks, planets, etc. have teleological motion? Does he have a sense of teleology beyond organisms? To start to answer that question, we need first to address Kant’s distinction between intrinsic purposefulness and relative purposefulness. Intrinsic purposefulness is what we saw in the case organisms. The parts of the tree are ordered towards the whole tree. Their end is intrinsic to the tree to which they belong. Relative purposefulness, however, refers to cases where the purpose lies beyond the thing in question. Here, X is (or is done) for the sake of an external Y. So for Kant, the issue of purposefulness in non-organic nature is the issue of relative purpose within such nature. That said, at first Kant seems to deny that such relative purposefulness obtains in nature beyond organisms. After all, Kant argues that a river which deposits soil helpful for the growth of plants and animals is not acting teleologically. In Aristotelian terms, we may say that such a result “just followed” given the

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109 Ibid.
110 See Ibid., § 63 “On the relative purposiveness of nature in distinction from internal purposiveness.”
111 See Ibid., § 82 5:425. “Water, air, and soils” are “things that have no internal purposiveness.”
112 Ibid.
original material conditions of the river. In short, we can “understand these arrangements
[pertaining to the river] without appeal to purpose.”

But Kant does think that nature beyond organisms does manifest some purposefulness.
We can consider nature as a whole and ask questions about its purposefulness. Ginsborg calls
this asking about “nature as a system of purposes.” Judged thusly, what are the ends toward
which nature is ordered? Kant says that there are “final ends,” good in themselves, and there are
“ultimate ends,” which complete some process of relative purposiveness. The final and good
per-se end is “supersensible” and so transcends nature, whereas the ultimate end of nature is
found therein and completes it. Kant, however, thinks that in the case of man, these two ends
fold into each other. On the one hand, man, qua rational, exercises freedom and “thus his
existence contains the highest [i.e., final, good per-se] end.” On the other hand, man, qua
human, belongs to nature. For Kant, then, we can conceive of nature as whole as having a final
and ultimate end in man. “We have sufficient cause for judging man to be . . . the ultimate
purpose of nature here on earth, in reference to whom all other natural things constitute a system
of purposes.” Nature as a whole can be seen as ordered towards the development and
functioning of human freedom. Kant also thinks it important to talk about culture here. In other
words, the proper exercise of freedom is done according to cultures which properly foster its
development and use. As such, culture is “the ultimate purpose of nature [i.e. an end within
nature], because it prepares man for what he must do in order to be the final purpose of nature

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113 Hannah Ginsborg, “Kant’s Aesthetics and Teleology,” 29.
114 Ibid.
115 Critique of the Power of Judgment, § 82, 5:426.
116 Ibid.
117 Ibid., § 84, 5:435.
118 Ibid., § 83.
119 First, there is the “culture of skill” which involves “the acquisition of specific abilities” which can be put to use in
the exercise of freedom. Second, there is the “culture of training” by which one can use his freedom for purposes
[i.e., the end of the proper exercise of freedom beyond nature].”

So when we judge nature as a whole we can see a two-fold end toward which it is teleologically ordered.

Natural teleology also plays a role in religious questions. Nature, as a systematic, holistic organization which seems ordered towards an end, “drives us to seek a theology.” The purposefulness of nature invites us to ponder the purposes which God may have in authoring such nature. Granted, Kant does not posit a comprehensive grasp of what those purposes may be. He does not state that nature’s ultimate purpose is to reconnect with God. In fact, for Kant, the purposiveness of nature can really tell us quite little of God; our positing of God as the author of a final purpose for the world does not indicate any deep understanding of God’s own nature.

In any case, Kant does not delve much, if at all, into the issue of a supernatural end to nature or natural things. His sense of relative teleology is precisely that, relative. For him, unlike for Aristotle, there is no prime mover whose motion all things seek to emulate. There is no proper place for inorganic things of nature. But he does seem to allow for nature being oriented ultimately towards the progressive flourishing of humanity in history, a position somewhat beyond Aristotle.

Summary and Transition

What, then, can we say of Kant’s teleology, especially in light of the previous discussion on Aristotle? Any consideration of Kant must, of course, take into account his Transcendental

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120 Ginsborg, “Kant’s Aesthetics and Teleology,” 29.

121 Critique of the Power of Judgment, § 85, 5: 442.

122 See Ibid., § 88, 5: 457.
Idealism and consider how that affects his teleology. With that mind, we see that for Kant, final causality is not a mode of explanation, insofar as it is contingent and unpredictable, and scientific explanation, as done via a mechanistic account, addresses the necessary interactions of parts and forces of the world. One does not, in Kant’s framework, explain something or some event in terms of purpose; rather one offers an intelligible rendering.

That said, what kind of purposes do we see with Kant? Kant stresses that nature is populated by things that can only be experienced as purposes, i.e., organisms. That is, in nature as experienced, some living things will always show up as purposes, irreducible to mechanical explanation. In such a nature, mind can also be said to obtain. Such natural, living things, moreover, are purposes insofar as their parts and their activities are oriented towards the whole and its maintenance. A sense of holistic form thus is present in Kant’s teleology. Unlike Aristotle, Kant does not clearly posit that the purpose ultimately is the full actualization of organic forms and the flourishing of the whole. He does, moreover, address teleology and design and the limited analogy between rational and natural purposefulness. Finally, Kant offers some connection between normativity and natural teleology, albeit differently than Aristotle does. Furthermore, Kant examines specific aspects of organic teleology: growth, survival, and reproduction. The parts and behavior of an organism are oriented towards its continued survival, as an individual and species. Kant, as noted, thus offers a robust teleology of organisms.

Finally, Kant addresses how beyond organisms, teleology obtains. That is, nature, qua whole, is oriented towards the exercise of human freedom and the conditions by which such freedom is performed. Kant also stresses that the teleology of nature may lead one to consider God, although he does not posit that God serves as some cosmological end for nature as such.
Part III: Contemporary Teleology

Contemporary discussion on teleology has to be understood in light of Darwin’s theory of evolution. Although Aristotle and certainly Kant exercise some influence in this conversation, it is Darwin’s shadow which looms large. Why so? Darwinian evolution seemed to account for the presence of organic parts absent any sense of teleology. That is, traits originate in organisms not because they exist for the sake of organism. Rather, a trait obtains because of natural selection: through a process of random, non-goal directional mutations, a certain species comes gradually to possess some trait, which trait just so happens to aid the survival of the members of that species which possess it. More fit to survive, such species do so in larger quantities and do so with the pertinent trait. Hence, a current member of that species now possesses the relevant, survival-enhancing trait, although not because the trait is teleologically oriented toward the organism and its fulfillment. The trait is found today because of natural selection and genetic inheritance. Furthermore, for many Darwinians, this process, as well as other evolutionary processes, has nothing to do with teleology.\(^{123}\) Aristotelian natural teleology—which posits the genesis of teeth as a prime indicator of nature’s teleology—is thus called into doubt, and so the teleological tradition subsequent to Aristotle is likewise questioned, critiqued, and sometimes

outright rejected. In short, our current understanding of science and nature, insofar as it follows from evolutionary theory, does not readily welcome teleological notions.\textsuperscript{124}

Given this framework, what exact conditions are placed on the possibility of teleological concepts today? To start, natural teleology must be just that, natural, and not allow for mention of God, Intelligent intentional design, etc. Any teleology hinting in that direction is thus problematic.\textsuperscript{125} Furthermore, qua natural, such teleology must accord with the natural sciences. Recourse to a vital force or other such explanations are de facto off the table. Likewise suspect are any inherently metaphysical claims which seem beyond empirical science.\textsuperscript{126} In this same vein, some contemporary thinkers on teleology want to avoid commitment to notions such as backwards causation or minded, conscious intentionality operative in non-rational (and non-organic) things.\textsuperscript{127} Also, in this intellectual climate, talk of planetary or particle teleology, such as we saw with Aristotle, seems absurd. The idea of nature intentionally acting for the sake of a goal, such as human, rational life of moral freedom, as did Kant, is likewise absurd.\textsuperscript{128} In this manner, then, cosmological or evolutionary teleology is untenable, for there is no conscious agent directing these processes towards a future goal. Such, in brief, are the limitations placed on teleology post-Darwin.

\begin{footnotes}
\footnotetext[124]{In fact, some, pursuant to Darwin, see teleology as not merely problematic but in fact defunct. “From the point view of contemporary biology . . . teleology is stone cold dead.” David Hull, “What Philosophy of Biology Is Not,” \textit{Journal of the History of Biology} 2 (1969): 249.}
\footnotetext[125]{See, for example, Mark Perlman, “The Modern Philosophical Resurrection of Teleology,” \textit{Monist} 87 (2004): 7-8.}
\footnotetext[126]{“We expect the purposiveness common to living organisms’ behavior to be analyzable in some non-mental, but naturalistic way.” Christopher Boorse, “A Rebuttal on Functions,” in \textit{Functions: New Essays in the Philosophy of Psychology and Biology}, ed. André Ariew, Robert Cummins, and Mark Perlman, (New York, NY: Oxford University Press, 2002), 69.}
\footnotetext[127]{A human rational agent’s desire for X may explain his actions oriented towards future state S which contains X. It is the current \textit{desire for} X in the future which causes actions concurrent with that desire. Yet without the capacity for rational, future-oriented desires—such as in the case, for instance, of plants, and non-living thing—there is no such desire and so there is no activity towards a goal in mind. Hence to explain the activity of plants, non-living things, etc. by the use of goals implies that some future state is causing current actions, a seemingly indefensible assumption.}
\footnotetext[128]{Ernst Mayr, \textit{Toward a New Philosophy of Biology}, 40.}
\end{footnotes}
One more word is required before proceeding. The contemporary literature on teleology, although it ascribes to the limitations discussed above, is nonetheless multifaceted. There is no one particular contemporary position on teleological issues. Rather, numerous authors, from numerous viewpoints, with numerous presuppositions, address the current questions of teleology.\textsuperscript{129} We will focus primarily on philosophers whose ideas are relevant to, help to articulate, and may provide a useful foil for the notions of final causality in Aristotle and Kant. In what follows, I will try to map out, as succinctly as possible, the central themes of such contemporary philosophy. In this manner, I hope to provide an adequate presentation of contemporary teleology which can readily follow upon the previous discussions on Aristotle and Kant and also help prepare the subsequent discussion on Jonas.

\textit{Contemporary Thought on Causal Explanation and Teleology}

At first glance, the current understanding of causal explanation in teleological discussions seems to reflect Kant’s understanding. On this view, a causal explanation refers to the “antecedent conditions” of some state, $X$.\textsuperscript{130} By referencing such conditions, moreover, the explanation indicates the “causal laws” which are necessary to account for $X$.\textsuperscript{131} Thus, law-like (necessary) conditions must be in place in order for the \textit{explanandum} to be explained properly. We see here, then, an efficient causality model: external causes, operating according to necessary laws, act in such a way so as to cause the state $X$. For example, explaining the parts of organisms and their functions involves reference to the etiology of such parts, both in the organism itself as

\textsuperscript{129} A brief list of such authors includes: Mark Perlman, John Searle, Daniel Dennett, Ernst Mayr, Ernest Nagel, Robert Cummins, Andrew Ariew, Peter Godfrey Smith, Eliot Sober, Thomas Nagel, Francisco Ayala, Michael Ruse, Larry Wright, Ruth Garret Millikan, Lowell Nissen, and Christopher Boorse.


\textsuperscript{131} Ibid.
well as their evolutionary origin in organisms of that species in the first place. For instance, consider the case of the heart in an organism. The question of what purpose the heart serves is superfluous to explaining it. Rather, to explain why a heart is there is to list the causes of origin for the heart. Hence, we see the claim that “explaining the presence of a structure requires specifying its antecedent causes.”

This position follows along the general lines of Kant’s views on causal explanation, then, which, in turn, stems from Newton’s perspective. In other words, when addressing causality in relation to teleology, the terms of physics seem the dominant mode of current causal explanation. As Mark Perlman, says in discussing the possibility of reducing teleology: “Science is generally in the business of reduction.” As physics represents the basic mode of explanation for science, then a reduction of teleology in science would often mean a reduction to physics-type explanations.

However, such an approach is not comprehensive. Ernst Mayr, for example, wants to maintain a healthy distinction between physics and biology such that an explanation of life cannot be summarily reduced to a physical explanation of parts, forces, and inanimate matter. Thus Mayr distinguishes between teleomatic explanations of processes (which refer to automatic and determinate actions of matter) and teleonomic processes (which refer to goal-directed actions of matter).

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133 Nagel says that Item i can have a function ascribed to it; e.g., in a period of plant growth in a nutrient rich environment, chlorophyll has the function of photosynthesis. However, just because there is photosynthesis that does not mean that there has to be a chlorophyll, because photosynthesis is not a necessary antecedent condition for chlorophyll. Thus, addressing the function of chlorophyll does not explain the chlorophyll. See Nagel, *Teleology Revisited*, 308-311.
135 Mark Perlman, “The Modern Philosophical Resurrection of Teleology,” 11. See also Peter Godfrey-Smith, *Philosophy of Biology*, (Princeton, NJ: Princeton University Press, 2014), 15. “Large parts of biology are engaged in the analysis of mechanisms,” a mechanism being “an arrangement of parts that produces a more complex set of in effects in a whole system.” On such a view, measuring the “activities” of the parts “and the relations between them explain how the more complicated capacities of the whole system arise.”
136 See Ernst Mayr, *Toward a New Philosophy of Biology*, 29: A physics-like casual “explanation [done for organisms] will often have to be so unspecific . . . that its explanatory value can certainly be challenged.”
behaviors of organisms and artifacts). The latter type explanations, thinks Mayr, lie within the
science of biology, as separate from a physics of life.\footnote[137]{Mayr states that “biological phenomenon usually consist of sets of causes;” furthermore, some such causes must take into account evolution; and these causes may never be “analyzable completely.” (Ibid., 35) Hence, such causes in biology cannot be reduced to determinate, set causes of physics. Michael Ruse also posits that in its use of “teleological language, . . . evolutionary biology” is autonomous from physics and chemistry. (Michael Ruse, “Evolutionary Biology and Teleological Thinking,” in *Functions: New Essays in the Philosophy of Psychology and Biology*, ed. André Ariew, Robert Cummins, and Mark Perlman, (New York, NY: Oxford University Press, 2002), 47.)} Thus, for Mayr, when addressing organisms, some trans-physics explanations, even teleological ones (or as he says *teleonomic* ones) are called for.\footnote[138]{Yet even Mayr admits the central importance of “physiochemical explanations” grounded “in terms of the laws of physics.” Ernst Mayr, *Toward a New Philosophy of Biology*, 40.}

*Contemporary Thought on Nature and Teleology*

The first issue to bear in mind is the aforesaid notion of natural selection. Whereas Aristotle saw nature as a principle informing and properly directing the motion of things, Darwinism sees natural selection as the “principle” which “guides” the genesis of species and organic traits. (The quotation marks indicate that natural selection is not an intelligible form operating in a goal-directed manner. Positing it as guiding principle means only that natural selection helps account for the development of organisms, not that it operates as a reasonable agent.) According to the current understanding, what nature is today rests largely on the prior process of natural selection, which process is not formal or intentional.

There is also the contemporary understanding of species that we should examine. On the one hand, the taxonomy of contemporary science indicates the acceptance of a wide variety of kinds of organisms. However, one would likely be mistaken to believe such taxonomy indicates an Aristotelian current of thought. Peter Godfrey-Smith points out that such Aristotelian thought sees species as “*typological*” in which “organisms can be divided into types, where each
individual of a type possesses an underlying nature.” Nonetheless, “thinking about species was transformed by Darwin,” and he “exploded” the typological perspective. Rather, species are often thought of today in the following sorts of ways: as groups of organisms with certain similarities, as reproductive communities, as conglomerations with particular “cohesion mechanisms,” as organisms sharing common ancestry, and even as sets of organisms (in an ostensibly mathematical approach), all of which are non-typological. Species, in short, is no longer equated with any Aristotelian sense of nature.

What about the possibility of mind operating in nature in order to account for the apparent purposefulness of organisms? For example, Mayr makes ready recourse to the language of “information” and “planning” to depict the goal-directedness of organisms. It would seem to follow that some sense of mind is at work in natural things, either the minds of such things or else the mind of one who designed them. Mayr, however, rebuts this possibility: the genetic program is purely material and merely resulted from evolutionary inheritance. In other words, it is not minded. Likewise, Nagel makes no mention of a real presence of mind in nature, despite this language of programs, plans, and information. Lowell Nissen does make some limited allowance for mind in nature beyond humans. Nissen says that teleological action follows from a sort of mental representation (e.g., using memory and imagination) of the desired goal; higher order animals are capable of such mind-like representation and so act teleologically. In any

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139 Peter Godfrey-Smith, *Philosophy of Biology*, 100.
140 Ibid., 101.
141 See Ibid., chapter 7: “Species and the Tree of Life.”
142 Also worth mentioning is the fact that today, post-Darwin, species are not considered eternal. There is no particular maple-tree natural form existing as such eternally. The maple tree *species*, a product of evolution, is a recent arrival in the history of the universe, and there is no guarantee of its continued existence.
143 See Mayr, *Toward a New Philosophy of Biology*, 49. A program, which directs a process towards a goal, is “coded or pre-arranged information that controls a process (or behavior) leading it toward a given end.”
144 Ibid., 48. In fact, Mayr also points out that the ascription of minded intentional, goal-directedness to organisms is one large reason for the current critique of teleology. See Ibid., 40.
case, however, contemporary teleology does not readily grant the presence of mind in nature. After all, “virtually all theories of biological function are non-intentionalist;” the functions and teleological actions of organisms are not the result of intentionally minded agents.  

In short, any “naturalist would reject the notion of applying teleological explanations to natural items on the basis of conscious intention.”

Contemporary Thought on the Teleology of Organisms in General

One salient feature of such thought is the use of computational terms. Mayr states that the term “program” is the “key word” in his understanding of teleonomic activity. (“Teleonomic,” for Mayr, refers to an end-directed process governed by a system or program internal to the thing(s) undergoing said process. For instance, Mayr contends that the growth of an embryo into a mature animal—which growth is governed by its DNA programming—or the obtaining of nutrition by an organism are teleonomic processes. Such teleonomic processes, likewise, differ from inanimate processes, such as the orbiting of planets around the sun, in that the latter are not governed internally but occur according to external forces and laws. Mayr terms these inanimate processes “teleomatic.” Mayr thinks that the term, “teleology,” has too much philosophical and even theological baggage and hence jettisons it in favor of his own invented terminology.) In fact, in three different chapters of his *Toward a New Philosophy of Biology*, Mayr brings up the relation between programs and teleonomic. Likewise, Ernest Nagel states that “goal-directed processes in living systems [e.g. organisms] are patently programmed, containing ‘instructions’

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146 Mark Perlman, “Modern Philosophical Resurrection of Teleology,” 33.
for the development [of the organism] . . . and the origins of the programs are left to be explained by evolutionary theory."¹⁴⁹ In short, a common heuristic by which to illustrate natural teleology is the working of designed, often computer-like, machines. In fact, Mayr is explicit in refusing to “draw a line between seemingly ‘purposive’ behavior in organisms and in man-made machines."¹⁵⁰ Moreover, in addition to Mayr and Nagel, there is a wider trend towards offering cybernetic explanations of natural goal-directedness, in which the natural thing is explained in computer-machine terms.¹⁵¹ As says Mark Perlman, “one nice feature of goal directed accounts is that . . . they can apply to artifacts as well as organisms.”¹⁵²

Another basic notion worth mentioning here is adaptability. This refers to the ability of a living thing to re-direct itself towards its goal in the face of obstacles, the current absence of the goal, or other setbacks. Goal-directed organic X, in other words, does not merely act in an absolutely uniform manner but alters its behavior on account of the circumstances. A falling rock is not goal-directed, whereas a cat seeking a mouse is: the rock falls in a set manner; the cat changes its position, its speed, etc. in order to capture the mouse. In fact, X is goal directed insofar as it exercises (or can at least exercise) such adaptability.¹⁵³

¹⁴⁹ Nagel, *Teleology Revisited*, 288. Likewise, a peer of Darwin noted the connection between the adaptiveness of organisms and the “centrifugal governor of a steam engine: “like the machine operating according to the governor, no unbalanced deficiency in the animal kingdom can ever reach any conspicuous magnitude.” R. A Wallace, “On the Tendency of Varieties to Depart Indefinitely from the Original Type,” *Proceedings of the Linnaean Society of London* 3: 62. See also, Christopher Boorse “Larry Wright on Functions,” *Philosophical Review* 85 (1976), 83: “the functions of parts of artifacts” have the “real payoff in their implications for biology.”

¹⁵⁰ Mayr, *Toward a New Philosophy of Biology*, 49. NB. Mayr makes no mention of the fact that organisms such as animals, unlike machines, experience feelings, which feelings play important roles in their goal-directed activity. E.g., a bear *feels* hungry and seeks out food. We will, in chapter three, see that Jonas differs greatly from Mayr on this point, especially when we take into account the emotive factor in animal life and behavior.


¹⁵³ Authors who examine the issue of adaptability include Ernest Nagel, *Teleology Revisited*, Christopher Boorse, “Larry Wright on Functions,” and “A Rebuttal on Functions,” and Lowell Nissen, *Teleological Language in the Life Sciences*. Nagel often refers to this as the plasticity feature of goal-directed things.
Here, we should pause and ask: in contemporary teleology, what is the exact nature of such goals towards which living things and their actions are directed? Mayr offers a concise response: the goal “might be a structure, a physiological function, the attainment of a new geographical position or a ‘consummatory’ act in behavior,” which goals “regulate” the relevant actions in a certain way.\(^{154}\) Recall the house example of Aristotle: the finished house is what explained why the action of putting material together was being done. Thus, the endpoint of, for instance, a “new geographical position” away from a predator is what explains why the rabbit runs as he does; the speed and direction of its running are oriented towards a safe place away from the coyote. Or, the endpoint of the “physiological function” of oxygenated blood helps explain why the heart acts as it does. The heart’s pumping of blood into the arteries is oriented towards the diffusion of oxygen-rich blood all throughout the body.\(^{155}\)

What we also see here is that these sorts of goals are beneficial for the natural things in question. This point becomes clear in the contemporary literature on functions. Consider Ernest Nagel’s contention about end-directed functions: “functions contribute to the ‘welfare’ . . . of either individual organisms or populations of organisms.”\(^{156}\) Likewise, Nagel thinks that any ascription of functions to an organism must consider the “proper working of” that organism: i.e., to see which activities are functions, it is necessary to consider the full health of the organism and then see which actions normally contribute to that state of health.\(^{157}\) In short, the end towards which a function is ordered is the “well-being” of that organism.\(^{158}\)

\(^{154}\) Mayr, *Toward a New Philosophy of Biology*, 45.
\(^{155}\) Larry Wright, in his *Teleological Explanations*, employs the heart example to show the teleological functioning of an organic part.
\(^{156}\) Ernest Nagel, *Teleology Revisited*, 305.
\(^{157}\) Ibid., 309.
\(^{158}\) Michael Ruse, “Evolutionary Biology and Teleological Thinking,” 41.
Nonetheless, the following question could be asked here: do contemporary thinkers see organic well-being as valuable? Does the telos of a living thing constitute a value? On the relation of value to teleology, there are mixed views in contemporary thought. Mark Perlman, for instance, in his attempt to bring Aristotle into current debates on teleology, posits that Aristotle “does not . . . make ends value laden.” In which case, thinks Perlman, Aristotle can be incorporated into current debates: after all, current debates try to see teleology as natural, but since “value is a non-natural property,” then Aristotle can only be permissible insofar as he does not equate ends with value. Peter Godfrey-Smith is even more adamant on this separation of ends and value. Godfrey-Smith examines how traditionally, “the function of something is what is supposed to do, in a sense that things have gone wrong if something else happens.” However, within the current, post-Darwin debates on teleology, “this evaluative way of thinking about functions is clearly out of place” and the evolutionary fact that organic traits developed a certain way and perform certain tasks for organisms “brings with it no implication of goodness or propriety.” Hence, “in our current understanding of things,” we cannot ascribe normative claims to ends and instead must view them as value-neutral.

A contrarian voice is that of Mark Badeau. He posits that there obtains “an evaluative component of biological teleology.” In other words, when biological things (organic parts, the function of organic parts, etc.) are truly teleological, then they are “good” for that thing. “A broader . . . Aristotelian . . . view of nature could reckon objective standards of value as part of

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160 Ibid.
161 Peter Godfrey-Smith, Philosophy of Biology, 64.
162 Ibid., 64-65.
163 Ibid., 65.
165 Ibid., 655.
the natural order. . . [Hence] values would be real ineliminable natural properties, subject to broadly scientific investigation.”\textsuperscript{166} That is, “biological teleology” is value-laden.\textsuperscript{167}

\textit{Contemporary Thought on Organic Growth, Survival, and Reproduction}

In contemporary thought, survival and reproduction are seen as the two main goals of organisms.\textsuperscript{168} Focus on the teleology of organic growth, though limited, does have a place in current thought.

Let us first say a few words on growth and teleology. Ernst Mayr, for instance, lists “ontogeny” as a paradigm example of goal-directed behavior in an organism.\textsuperscript{169} For Mayr, the organism, being structured as it is according to its genetic program, matures in a manner that is informed by that program and so evinces goal-directedness.\textsuperscript{170} A completely non-intentional process thus qualifies as goal-directed for Mayr. However, few other authors seem to extend the range of teleology as far as Mayr.\textsuperscript{171} In fact, Robert Cummins directly opposes Mayr’s position. In critiquing teleology, Cummins states that “teleological explanation of growth and development” failed miserably.\textsuperscript{172} Put differently, such processes, for Cummins, should be explained by other, non-teleological explanations.

\begin{itemize}
\item \textsuperscript{166} Ibid., 657.
\item \textsuperscript{167} Ibid.
\item \textsuperscript{168} See, for instance, Mark Perlman, ““Modern Philosophical Resurrection of Teleology,”” 19; ““The goal-directed accounts” of contemporary teleology state that “the goals of organisms are, at the highest level, survival and reproduction.” See also Michael Ruse, “Evolutionary Biology and Teleological Thinking,” 37. Teleological “adaptions serve the end of survival and reproduction of their possessors.” See also Christopher Borse, “A Rebuttal on Functions,” 69. “All the gross behavior of organisms seems directed to two ultimate goals: individual survival and reproduction.”
\item \textsuperscript{169} Mayr, \textit{Toward a New Philosophy of Biology}, 45.
\item \textsuperscript{171} For instance, Mark Perlman’s review of current debates on teleology does not discuss the issue of growth.
\end{itemize}
That said, let us look at the topic of survival. Ernst Mayr talks of “migration [and] food-getting,” as examples of goal-directed (teleonomic) processes in organisms. In fact, says Mayr, “the occurrence of goal-directed processes is perhaps the most characteristic feature of the world of living organisms.” Which fact, of course, raises the relevant question: What is the ultimate end of such organic, goal-directed activity? For Mayr, such activity follows upon a “genetic program,” such as DNA. Moreover, these programs or codes themselves follow from the evolutionary process of natural selection. And “natural selection does its best to favor the production of codes guaranteeing behavior that increases fitness,” i.e. fitness for survival. In which case, then, the programmed behavior or activity of organisms is done because its favors the fitness for survival of that organism. Migration, food-getting, etc. are therefore actions done by an organism for the final goal of its own survival.

What about organic parts? Are they also seen as directed towards organic survival? Some authors give an adamant yes in response to these questions. Ruth Garret Millikan talks about proper functions. Such functions are the properties of certain parts of organisms which, all things being equal, help ensure the survival of the organism and its offspring. In fact, the function may not always succeed, yet so long as it is performed enough to aid the survival of the relevant organism then the function is proper to that organism. In short, the part is oriented towards the organism’s survival. Ernst Mayr gives a hesitant nod, positing that organic systems and parts

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Mayr, Toward a New Philosophy of Biology, 45.
Ibid.
Ibid., 57.
Other authors also address the issue of organic survival as the goal of organic activity. For example, Ruth Garrett Millikan discusses “mouse behavior, shark behavior, robin behavior, earthworm behavior, and tape-worm behavior.” She further states that the function of such activity is connected to the survival of the corresponding organism, both historically for members of that species and currently for the individual species member in question. See Ruth Garrett Millikan, “In Defense of Proper Functions,” Philosophy of Science 56 (1989): 288-302.
can be considered quasi-teleonomic because such parts have “useful functions” which engender teleonomic processes, which processes are, as we saw, directed towards the survival of the organism.\textsuperscript{179} On the other hand, Robert Cummins does not see organic parts as teleologically oriented: “to explain the presence of the heart in vertebrates by appeal to what the heart does is to 'explain' its presence by appeal to factors which are causally irrelevant to its presence.”\textsuperscript{180} From such a perspective, organic parts just happened to develop in the process of evolution; they are not like Aristotelian teeth which followed from nature’s purposes.

Our next question is the following: is it organic survival or organic \textit{flourishing} which is seen as the end of organic actions and parts? After all, a state of well-being is seen as a final goal of organisms. However, in contemporary literature, one would not readily find an Aristotelian concept of flourishing-fullness as the proper end of organisms.\textsuperscript{181} Two of the more prominent authors, Ernst Mayr and Ernest Nagel, do not make reference to such fullness-flourishing, nor does Mark Perlman’s review of current thought on teleology. This trend of thinking, according to which organisms follow from natural selection, sees continued survival as such as the end of organic existence. In like manner, the experience of fullness-flourishing is seen as unique to minded, intentional humans: I can fulfill myself by mindedly meeting my goals, but my non-minded dog and non-minded plant can never realize such fullness. Michael Ruse says: “Whereas humans have all sorts of different things that satisfy them, not just life and survival but also happiness and pleasure and so forth, in the case of organisms taken generally it is life and survival . . . that counts.”\textsuperscript{182}

\textsuperscript{179} Ernst Mayr, \textit{Toward a New Philosophy of Biology}, 53.
\textsuperscript{180} Robert Cummins, “Functional Analysis,” 750.
\textsuperscript{181} See, for instance, Robert Cummins, “Neo-Teleology,” 160. It was “a misconceived enterprise” to try to locate “entelechies” in organic processes.
\textsuperscript{182} Michael Ruse, “Evolutionary Biology and Teleological Thinking,” 37.
What about the life of offspring and species? Ernst Mayr, for instance, states that “courtship . . . and all phases of reproduction [are] characterized by . . . goal orientation.” As we unpack this statement, we note that there is a set of organic actions oriented towards reproduction. Attracting a mate via “courtship,” is a first activity done ultimately for the sake of offspring. A next set of actions done for this goal include more external actions such as sexual intercourse and more internal actions such as the movement of sperm to an egg and the resultant fertilization of that egg. Finally, there is the actual birth of the offspring and the raising of it by its parents. Moreover, from the perspective of functions, a similar result holds: the function of many organic activities is the reproduction of offspring. “X performs its proper function when it does the sort of thing that has been historically responsible for replication of Xs.”

This last statement segues easily into a related topic: organic parts, too, have a teleological orientation towards reproduction. Ruth Millikan argues that sperm and eggs, as such, have the function of being directed towards combining with each other for the sake of begetting a new organism. Indeed, says Millikan, the “function of a sperm’s tail is to propel it to an ovum.” Furthermore, on this view, statistical success is not an important consideration: even if only one in a hundred sperm reach an ovum, such sperm are still oriented towards ovum (and

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183 Ernst Mayr, *Toward a New Philosophy of Biology*, 45.
184 *External* in this case means the actions of a whole organism done towards another organism, which actions have effects outside of the first organism. E.g., a male dog copulates with a female dog and impregnates her. *Internal* refers to the actions of an organism’s parts, occurring within an organism, whose immediate effects likewise occur within that organism. E.g., the egg is fertilized within a female organism following copulation. Obviously, the distinction between external and internal here is loose; external copulation, after all, is intimately tied to the internal motion of sperm to egg and resultant fertilization. Nonetheless, from a non-reductive perspective, two organisms copulate in an action not intrinsic to either; the fertilization of an egg, however, is intrinsic to the female organism.
185 See Christopher Borse, “A Rebuttal on Functions,” 69, where he states that “parental care” is one of the reproduction-oriented teleological activities of an organism.
ultimately reproduction). And this analysis applies to non-animal organisms, too. The seeds of a fruit, for instance, have the function of helping reproduce members of that same kind. So in contemporary thought, some see organic parts as teleologically oriented towards reproduction.

Contemporary Thought on Teleology Beyond Organisms

This idea, for the most part, is pretty much non-existent in contemporary thought. First, none of the authors accept an Aristotelian view that elements and stars have natures oriented towards their proper place. The motion of such things is purely the result of physical and is not goal-directed. Second, the Kantian notion of nature as a whole moving towards an end is also not found here. Nature may indeed evolve though processes like natural selection, but nature, in this way, is not acting for the sake of any final or ultimate goal. The presence of humanity, consequently, is a fortunate by-product of the process of evolution, not the teleological outcome of some goal-directed work. Granted, some authors do posit that there is an overall progress in the development of the universe and of life. But even for such authors, there is no “overall teleology or cosmic teleology of the universe.” Aristotle and Kant’s contentions about non-organic teleology or universal teleology seem to have no place in contemporary thought.

Contemporary philosophers of teleology also differ from Aristotle in the following manner: they contend that organism, in their basic ontology, are the result of the random

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189 Ibid.
190 See Peter Melander, Analyzing Functions: An Essay on a Fundamental Notion in Biology, (Stockholm: Almqvist & Wiksell, 1997), 47.
191 See, for example, Michael Ruse, “Evolutionary Biology and Teleological Thinking.” 41. “It does not seem very appropriate to talk . . . of the purpose of Mars in circling the sun.”
192 See, Ibid., 54. According to Ruse, most contemporary evolutionary thinkers would never “argue that humans absolutely had to appear.”
194 Ruse, “Evolutionary Biology and Teleological Thinking,” 55.
mutations at work in the natural selection mechanism of evolution. Whereas Aristotle adamantly opposed the possibility of organized and end-directed living beings resulting from spontaneous, non-teleological occurrences in nature, contemporary theorists, following the tenets of Darwinism, accept precisely what Aristotle denied. Aristotle’s concept on nature acting purposefully in the production of organic features and his contention that such regularly functioning features must derive from nature’s purposiveness find little welcome but much ridicule in current, post-Darwin thinking on teleology.

Nonetheless, contemporary theorists do examine human teleology beyond organisms is addressed, albeit not in a rigorously Aristotelian fashion. For instance, there are no attempts by contemporary thinkers on teleology to address human communities as teleologically analogous to organisms. For the most part, human teleology—with its minded intentional goal seeking—is seen as distinct from organic teleology.

Summary and Transition

As noted above, contemporary thought on teleology is deeply connected to Darwinism. Given this evolutionary framework, the scope of teleological explanation is much narrower than the Aristotelian or Kantian perspectives. Within contemporary thought, moreover, efficient causal explanations are a dominant mode, although biological thinking does allow (some would say call) for explanations which address why questions rather than merely how questions. When we address the current concept of nature, we see the central importance of “natural selection.”

195 Issues such as “teleosemantics,” mental representations, the making and use of artifacts all get due attention in current thought. See, for instance, Mark Perlman, “Pagan Teleology: Adaptational Role and the Philosophy of Mind,” in Andre and Cummins, Functions: New Essays in the Philosophy of Psychology and Biology, 263-290.
the absence of an Aristotelian position on nature as a principle, and the overall denial of mind in non-human nature.

Furthermore, we see several salient, fundamental notions of organic teleology today. Much emphasis is placed on the design-like status of organisms and their activity, by which, for example, we can talk about the function of an organic part as similar to the function of the parts of artifacts. In turn, adaptability is a key feature. Moreover, there are a host of goals which count as natural ends and explain natural activity. Likewise, an ultimate end is a state of health; however, such ends are not often seen as value-laden, although some current authors do so.

In addressing specific organic goals, survival and reproduction are primary, although the issue of growth is addressed. Organic activity and parts are directed towards such ends. Indeed, we see here a further development of the function idea, in which a part or activity has a set function of being for the sake of a goal. Thus, a Darwinian influenced teleology places primacy on the maintenance and proliferation of life, albeit not life as flourishing. However, in the cosmos in general or in non-animate natural objects no such teleology obtains, nor does it obtain in the case of life (evolution) in general. On this last point, we see a clear and deep break with Aristotelian and Kantian thought.

Now, our last task is this chapter will be to begin to present Hans Jonas’s own views on teleology in light of the prior discussions on Aristotelian, Kantian, and contemporary teleology. We thus here return to Jonas’s philosophy of teleology, bearing in mind the multi-faceted and long history of teleological thinking from Aristotle onward.

Part IV: Introducing Jonas’s Teleology
Now that we have seen Aristotle, Kant, and contemporary thinkers on teleology, we begin to examine Jonas’s own views. This part of Chapter Two will offer only a brief and basic introduction to Jonas’s thought, since the more detailed and comprehensive discussions of his teleology will occur in chapters three, four, and five. For now, we will focus on his views on causal explanation and teleology and his views on nature.

**Jonas on Causal Explanation and Teleology**

What does Jonas say about causality and explanation? First, he points out those mechanical, causal explanations do not allow room for subjectivity and deny a role to any “psychological expressions.” For instance, a “cybernetic explanation” of eating would not reference any desire to alleviate hunger. It would reference only a physical deficiency in the metabolic system which triggers a casual chain of bodily actions such as limbs moving towards food, which process culminates in the obtaining of food and the correction of the metabolic deficiency. Within this whole chain, moreover, every particular “link” in the chain is both caused by some other external “link” and in turn causes a different external “link”: thus, “physiological stress” causes “nerve stimulation” which in turn causes a “readiness for selective triggering of a behavioral pattern,” such as the aforesaid limb movement. In this case, then, no matter the particular thing being explained (dog, cat, human, etc.), and no matter the type of action being done by that particular thing, the explanation is uniform, done in terms of the individual parts and processes of the thing and their relative interactions. Such explanations see things as akin to machines, such as computers—hence the term “cybernetic.” (We may also note

197 Ibid., 61.
198 Ibid., 62.
199 Ibid., 61-62.
here a ready similarity between such “cybernetic” explanations and Kant’s views on mechanistic explanation, which views are sometimes reiterated in contemporary thought.)

However, Jonas does not think that such explanations comprehensibly describe the world, nor does he think they render final causality superfluous. To start, Jonas asserts that such explanations occur in regard to “the artificial simplifications of the experiments,” or in regard to “the most extreme simplifications . . . of nature itself.”200 Such explanations, in other words, do not treat a living whole as such but rather treat it as if it were merely a collection of interacting, physical parts, which parts fall under the purview of a quantifiable measurements and scientific experiments. Jonas, furthermore, thinks that natural science is led to assume this sort of model because of things like “Occam’s principle of parsimony.”201 With such simple explanations, natural science, according to Jonas, can likewise avoid “anthropocentrism.”202 Indeed, insofar as “goals are not quantifiable,” and such science addresses only that which is quantifiable, then the “testimony of” the human—with its subjective purposiveness—“is consciously ignored.”203 Hence Jonas sees modern science as banishing final causes for the sake of a parsimonious, efficient causality model.204

Yet why does Jonas feel that natural science fails in this regard? In brief, natural science fails because it fails to account for the possibility and presence of subjectivity in nature. As we saw above, a natural explanation of eating did not even address the issue of hunger or desire. Feeling and planning are thus rendered moot within this scientific framework. In fact, any trace

200 Ibid., 72.
201 Ibid., 70.
202 Ibid.
203 Ibid.
204 Jonas also posits that final causality’s banishment occurs because such causal explanations appear overly “anthropomorphic” and not properly natural. Contemporary natural science, thinks Jonas, thus cannot allow room for such non-natural (i.e. minded) casual explanations (Hans Jonas, The Phenomenon of Life, 34-36.) We of course just examined, in our discussion on contemporary thought, a similar point about the preference for completely natural explanations of things and events.
of subjectivity, as we saw above, is absent. However, Jonas is quite adamant that such abstinence cannot square with the phenomenon of life as we know and experience it. In fact, thinks Jonas, any self-reflective scientist will see that he himself, qua part of nature, manifests subjective purposiveness, even while trying to prove its absence from nature.205 Likewise, thinks Jonas, any dog-owner can see clearly that his pet manifests a “subjectivity” not identical with other dogs nor reducible to any parts within it.206 So if science is to be aware of itself and the daily world around it, it must allow for subjectivity and purposiveness according to Jonas.207

As such, Jonas thinks that he is following “a generally ‘Aristotelian’ ontology,” in which the actual and robust presence of goals in nature is assumed and employed to explain the workings of that same nature.208 Yet Jonas, unlike some contemporary thinkers, does not believe that “an ‘Aristotelian’ understanding of being contradicts the modern casual explanation of nature or is inconsistent with it.”209 I think we can flesh out that contention in the following way. Jonas thinks that “modern causal explanation” obtains with greatest success in those cases of simple, quantifiable realities such as “astronomical” events.210 Astronomical events include things such as the orbit of planets around the sun, the speed and trajectory of meteors, the routine appearance of Halley’s Comet in our galaxy, etc.211 All such events are readily explicable in terms of the respective masses of the individual bodies, the number of such bodies in a given

205 Ibid., 70.
206 Ibid., 62
207 This issue, of course, we examined in some detail in Chapter One, part IV. See that part of the dissertation for a further sense of Jonas’s treatment of subjectivity and purposiveness. See also Hans Jonas, The Phenomenon of Life, 33-37, “Note on Anthropomorphism.” There Jonas also examines the idea that the real presence of final causality in human affairs gives proof for the real presence of such causality in “one part of the physical order,” insofar as humanity is part of nature. In other words, purposiveness obtains in the physical world, despite the attempts of modern science to describe and explain that world merely with reference to efficient causes.
208 The Imperative of Responsibility, 69.
209 Ibid., 71.
210 Ibid., 70.
211 Jonas himself looks at the example of the motion of a planet relative to the sun. Phenomenon of Life, 115.
space, and the forces acting upon such bodies. For instance, a meteor moving through space is not a self-moving agent directing itself towards a goal. Rather, it is a material object compelled to move on account of its mass and the forces acting on it. In short, then, with astronomical events we see measurable realities whose activity is explained fairly easily by Newtonian physics. Yet for Jonas, nature is also populated by living beings, holistic entities, selves as it were, who exist over and above material parts. Living beings, therefore, are, for Jonas, self-moving movers, actual and causally efficacious agents acting in the world.\(^{212}\) A Newtonian framework, like the one above, is insufficient to account for living beings and their activity in the world. A tree’s growth is not the same as a meteor’s motion nor is the journey of salmon back to their spawning ground identical with the routine path of Halley’s Comet. A scientist of nature, who really observes phenomena of life such as trees growing and salmon swimming and spawning, will talk scientifically about said phenomena outside of a purely Newtonian explanatory framework. Jonas thus sees science and causal explanation as going beyond classical physics and extending into biological examinations. (Here, we may recall, Mayr’s insistence that biological explanations go above and beyond the explanations of physics.) Furthermore, such explanations, thinks Jonas, must at least grant to the things being explained the “appearance” of goal-directedness.\(^{213}\) That is, a biologist working with a living organism, will address it “as if” it were teleological.\(^{214}\)

Such a procedure has, we readily concede, a certain Kantian tenor. After all, natural things, according to Kant, have to be judged in our experience as if they were teleological. Jonas, then, goes beyond Kant. Given his aforesaid position of the real presence of subjectivity and purposiveness in nature, Jonas thinks a biologist ought to treat living natural beings as really

\(^{212}\) See Chapter One of this dissertation for a discussion on Jonas’s ideas of organisms as non-reductive selves existing co-relative to worlds in which they act in, by, and for themselves.


\(^{214}\) Ibid.
teleological, not because they merely appear so or because goal-directedness is a helpful heuristic by which to explain such beings, but because they are teleological. Jonas thus distances himself from Kant on this point and rather asserts the real presence of ends in organisms, which presence must be acknowledged by science and should be used in scientific explanations of nature. For Jonas, a teleological explanation is legitimate and even necessary, even in contemporary science. Hence, Jonas resembles Aristotle much more than Kant.

The pertinent question now is this: how does Jonas define ends? For Jonas: “an end is that for whose sake a matter exists, and which to bring about or to preserve, a process occurs or an act is performed.” Let us look at several examples to illustrate this claim. A hammer is used for the sake of hammering, be it the hammering of a nail used to support a painting or the hammering of a nail used in building a house. There is a “concept” to which belongs the end of the hammer: i.e., the hammer was built with a certain purpose in mind, hammering, and “this concept [of the hammer and its purpose], as with all artifacts, precedes its [the hammer’s] existence and was the cause of its origination.” (As Kant would say: the object is grounded in an antecedent concept.) Thus, to understand a hammer is, in part at least, to understand it as something oriented towards hammering. The hammer, then, is fulfilling its telos when it is used for hammering, regardless of the further purpose or skill of such hammering. A second example could be motion in animals, say a bear hunting for fish in a stream. This “act is performed” for the sake of obtaining and eating edible fish. This condition of having (and consuming) fish would qualify as another example of an end for Jonas.

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215 See especially The Imperative of Responsibility, chapter three, “Ends and their Status in Reality.”
216 Ibid., 51.
217 Ibid., 52.
218 Ibid.
219 We will look in more detail at such organismic examples in chapter three of this dissertation.
More importantly, as we move forward, we need to bear in mind Jonas’s positions that to explain nature, recourse must be made to ends—“that for whose sake a matter exists”—as really present and operating in nature. Explaining actions and things in the world calls for final causes which help best explain the *explanandum* under consideration.

*Jonas on Nature and Teleology*

So, what does Jonas say about nature? On one level, Jonas is talking about nature as a whole: the spectrum of all non-artificial beings in the world, seemingly ranging from sub-atomic particles to organisms, to stars, and to planets. For example, Jonas posits that in pre-conscious reality, there is manifest some, albeit quite analogous, form of appetitive “striving.” One instance of this could be the “striving” of atoms towards becoming DNA molecules, hence towards the advent of life itself. However, since no selfhood or subjective agency obtains at this level of reality, then to what can we ascribe responsibility for such striving? Jonas states that “‘Nature could be called its [this process of striving] impersonal subject—an unconscious total subject.” Hence nature, for Jonas, is an efficacious totality, duly affecting its members and the process within it. Nature offers “a valid testimony” of itself insofar as it “lets . . . emerge . . . in man” purposive behavior. In this way, nature “reveals in itself” how final causality is to be found within it.

On the other hand, Jonas posits ideas that seem to contradict this notion of nature as a whole. For example, Jonas contends that “diffusive appetitive striving” does not require the “hypostatization” of a “‘Nature.’” In fact, Jonas opposes the whole idea of an “initial unity [of

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220 *The Imperative of Responsibility*, 73.
221 Ibid.
222 *The Phenomenon of Life*, 37.
223 *The Imperative of Responsibility*, 73.
minded subjectivity] in a metaphysical, all-embracing subject.” He then continues: “In other words, pantheism is not a necessary complement of panpsychism.” Consequently, Jonas here is allowing for “a scattering of germinal appetitive inwardness through myriads of individual particles.” Here, we see from Jonas the idea that subjectivity, mindedness, and purpose could arise and obtain absent some overarching “Nature” that informs the origin and development of natural things.

So how do we resolve this dilemma for Jonas? One thing to bear in mind is that Jonas, immediately subsequent to these aforesaid statements against the idea of “Nature,” discusses how “purpose in general is indigenous to nature.” Jonas goes so far as to state that this coincidence between nature and purpose is such that “nature evinces at least one purpose—life itself.” In this same vein, he discusses the “volition” here ascribed to nature. Jonas, therefore, is talking about nature as some sort of unity that can possess and “evince” purpose and can likewise have some “volition.” A second thing to bear in mind is the previously presented quotation on pantheism. Jonas there appears to be saying that if “Nature” equals some sort of pantheistic reality, and such pantheism is not a necessary or even helpful posit, then “Nature” is likewise not a helpful posit. Finally, Jonas contends that “nature is one and testifies to itself in what it allows to come forth from it.” Here, we see some sense of nature as unified.

In short, I think that Jonas is trying to avoid pantheism or some sort of Platonic idea of a world soul. Nature is not on par with other ensouled beings such as organisms. Hence, any

224 Ibid.
225 Ibid.
226 Ibid.
227 Ibid., 74.
228 Ibid.
229 Ibid.
230 Ibid., 69
ascription of mind, purpose, agency, volition, etc. to nature, if used at all literally, would have to be the most extended use possible of such terms. On the other hand, I do not think that Jonas is using “nature” as a purely metaphorical term, meant in no way literally or actually. Thus, he speculates on nature with very extended notions.

Nonetheless, we can still ask: is there a more precise sense of nature we can articulate for Jonas? A helpful hermeneutic to understanding this claim is the concept of the Aristotelian mean. Such a mean is the mid-point between extremes, e.g., courage is the proper, virtuous mean between cowardice and rashness. So, what can such a mean tell us about Jonas? On the one hand, consider Cartesian dualism as an extreme view. According to this view, humans, with our minded subjectivity, stand outside and above the rest of nature, which is purely material and lacks such minded subjectivity. The case of humans in this view thus makes manifest an acute species particularity, i.e., minded subjectivity is only particular to the human species. On the other hand, a species-neutral physical depiction of the world is an oppositely extreme view. Here, all nature, including life, is merely the arrangement of material parts. In short, a human being, a dog, and a rock, qua composed of such species-neutral matter, are essentially—physically speaking—the same. Given these extremes on nature, we now move to see Jonas’s middle way.

When Jonas indicates the “oneness” of nature, we realize that his is not a species-neutral monism, nor he is talking about dualism or absolute species particularity. Instead, in the vein of Aristotle, we could talk about analogies obtaining in nature. That is, a rock, qua natural, is analogous to a tree insofar as both are composed of the same sort of matter on a fundamental level. The tree, insofar as it can operate over and above such matter, is however specifically different from the rock. Moreover, the tree is analogous to a dog, for both are materially akin,
both are metabolic, both exist over and above their parts, etc. The tree, however, is non-feeling, non-sensing, and stationary, whereas the dog is feeling, sensate, and mobile, indicating a further differentiation in the chain of nature.\textsuperscript{232} Moreover, insofar as life arose from matter (albeit in a most mysterious way), the matter in the rock is akin to the matter in the tree and in fact is akin to the matter of all living things, even human beings. Mind does not make humans unnatural in this sense, i.e., sundered from the material world, as it did for Descartes. Nor does Jonas adopt Kant’s Transcendental Idealism, which parses out the world into the phenomenal area of Newtonian laws and the noumenal area of freedom. Rather, Jonas sees freedom as obtaining the whole way down in life. And insofar as the germs of life are found in pre-organic matter, then likewise are the germs of freedom found there, too, albeit only analogously to the full freedom obtaining in the case of humans.\textsuperscript{233}

In like manner, Jonas also sees that mindedness is present—albeit analogously and in varying degrees—throughout all of living nature. Here, we see Jonas as distinct from Kant and from contemporary authors. In fact, depending on the possible relation between “mind” in Jonas and “soul” in Aristotle, Jonas’s position on natural mindedness may exceed Aristotle’s. Be that as it may, Jonas does not believe in a uniform sense of mindedness in nature but rather a gradational one.\textsuperscript{234}

A further word is called for in regard to this notion of gradational natures. Jonas does indeed posit that the natures of certain things “set” ends for them.\textsuperscript{235} He likewise posits that

\textsuperscript{232} See chapter one of this dissertation for a more complete discussion on the grades of nature
\textsuperscript{233} See Mortality and Morality chapter 1, “Evolution and Freedom: On the Continuity among Life-Forms” for a further discussion on this theme.
\textsuperscript{234} See, for example, Hans Jonas, Morality and Morality, 60, for a discussion on how “knowledge” obtains most fully in the case of minded human agents, but it can also obtain in less minded non-human organisms, and in fact the precursors to mindedness (and knowledge) are “present in nuce in life’s most primitive forms.” This issue of mind in living nature is one we will discuss more in chapters three and six as it pertains to Jonas’s views on teleology.
\textsuperscript{235} Hans Jonas, The Imperative of Responsibility, 81, n2.
natural things strive to survive as full members of their kind.\textsuperscript{236} And human nature, thinks Jonas, can never be so altered so as to eradicate the centrality of responsibility. Stated in Heideggerian terms: humans, by nature, are beings-responsible-for-others.\textsuperscript{237} Given these positions, we see, in this initial glance, Jonas as at least quasi-Aristotelian: there are specific natures which inform what things are, how they act, and how they are fulfilled.

One final point must be made before we proceed. Jonas, writing post-Darwin, reflects in several places on evolution and its relevance for an understanding of nature. Hence, Jonas does not allow for Aristotle’s concept of the eternality of species. However, unlike contemporary biology, he does not see the random process of natural selection as being the complete explanation of the development of life, especially life as minded and free. For instance, he disputes the notion that the “forming of organic micro-molecules” could have been “an accident” and speaks instead of a “goal-orientation” at work in the genesis and development of Life.\textsuperscript{238} Thus, thinks Jonas, some form of intelligence may have obtained in the original processes of evolution rather than them merely being chaotic mutations. He also disputes the mechanistic, algorithmic model of natural selection by which chance and odds are seen as the key factors for describing life; he instead wants to maintain interiority as a much more essential feature of life.\textsuperscript{239} In short, Jonas, in his understanding of nature, adopts a particular approach to evolution.\textsuperscript{240}

In sum, then, Jonas sees nature as a gradational whole which ranges from the non-organic to the human and which manifests correspondingly gradational features such as freedom...

\textsuperscript{236} Hans Jonas, \textit{The Phenomenon of Life}, 106. Animals strive to preserve their specific “qualities” of life. This is an issue we will examine in great detail in chapter three. For now, we merely note it as an example of Jonas’s non species-neutral view on nature.


\textsuperscript{238} Hans Jonas, \textit{The Imperative of Responsibility}, 74.

\textsuperscript{239} See Hans Jonas, \textit{The Phenomenon of Life}, second essay, “Philosophical Aspects of Darwinism.”

\textsuperscript{240} We shall look more at this facet of Jonas’s thought in chapters three and five.
and mindedness (knowledge). Such is Jonas’s middle way of nature, which still allows for particular modes of being for individual species.

Summary and Transition

Jonas, like Aristotle, sees final causality as an essential part of scientific explanation. In this way, he differs from both Kant and from much contemporary thinking. In turn, Jonas’s sense of end as “that for the sake of which” pertains to both artificial and natural things and their activity. On the topic of nature, moreover, Jonas sees nature in one way holistically and in another way specifically. Nature, in any case, has its own integrity for Jonas, and includes humanity, even human mindedness and freedom. This position of Jonas’s also affects his understanding of evolution and natural selection. Hence Jonas posits a gradational account for nature, rendering him again much more similar to Aristotle than to either Kant or contemporary thought.

With this initial sense of Jonas in mind, we now move, in Chapter Three, to examine his view on organic teleology.
Chapter Three
Jonas’s Philosophy of Organic Teleology

Since the general framework for the history of teleology is established, our next task is to analyze Jonas’s thought on final causality. Given his attention to the philosophy of organisms, the starting point for such a discussion will be his views on the teleology of organisms. Hence, this current chapter will look at what Jonas says about teleology and organisms.

As we prepare for this discussion, it is important to bear in mind the following. First, this chapter will flesh out prior points made in Chapter One concerning Jonas’s “existential interpretation of biological facts.” Thus, we will build upon and expand our discussion from the first chapter on Jonas’s philosophy of life. Secondly, this chapter will also flesh out points made in Chapter Two concerning the general philosophy of teleology. That is, such points will be brought into dialogue with Jonas, to help inform and illuminate our analyses of his ideas on final causality. The previous two chapters will function in the background of this current chapter, providing some framework and points of reference.

The format of this chapter will be as follows. In part one, we will discuss some general points about Jonas’s views on the teleology of organisms. One such point is Jonas’s distinction between serving a purpose and having a purpose. This distinction illuminates a decisive difference between organisms and machines and thus helps clarify the sort of teleology obtaining in organisms. Another such point is the operation of mindedness and awareness in the purposeful behavior of organisms. This, of course, highlights the gradational scale of mindedness in the community of organisms and the manner in which this scale of mindedness plays out in the teleology of such organisms. To close this part, we will address two final points: how organic teleology differs from cybernetic teleology and Jonas’s possible extension of teleology to include...
plants. In part two, we will examine Jonas’s thoughts on (A) the teleology of organic parts and
(B) the teleology of organic activities. Evidently, there is a considerable overlap between (A) and
(B). After all, as Jonas himself discusses, organic parts exist as they do based on the activity they
perform. Nonetheless, there are certain types of questions and issues especially germane to either
A or B, as we saw with our discussions, in the prior chapter, on Aristotle, Kant, and
contemporary philosophy. This discussion will yield a more robust understanding of the ways in
which organisms are teleological according to Jonas. In part three, following on these
examinations of organic parts and activities, we will address the teleology of the organism as
such. What are its ultimate goals? What role does teleology play in explaining the whole
organism and its life? Finally, in part four, we will address issues particular to the teleology of
humans and animals. The locomotion, sensation, and emotion of animals, as well as the rational
and moral activity of humans, indicate a wider scope of teleological behavior in these sorts of
organisms. Thus, we will examine how qualities specific to animal life open new types of
organic goals. We will also examine how human’s complex intelligence and freedom also opens
up new goals and how humans are teleologically oriented towards the true and the good. Finally,
we will explore some novel types of human goals, such as tools, while also seeing Jonas’s sense
on the possible limitations of such novel goal-setting.

Part I: General Considerations for Jonas’s Philosophy of Organic Teleology

*Having a Purpose versus Carrying out a Purpose*

To start, we need to address the distinction between having a purpose versus carrying out
a purpose. Many entities, both animate and inanimate, may carry out purposes. For example, a
torpedo launched towards an enemy ship carries out the purpose of the naval forces that launched it.\textsuperscript{1} Likewise, a hammer carries out the purposes of the person using it, who may use it to hammer nails for constructing a house, a shed, a barn, etc.\textsuperscript{2} In both cases, the object is merely an instrument used by an external agent in order to accomplish some goal which that agent desires. Moreover, living things can also carry out purposes. Jonas employs the example of soldiers in wartime. “Military training,” thinks Jonas, is designed to “mechanize” soldiers.\textsuperscript{3} The well-trained soldier follows and completes the orders given to him, much the same as an instrument or tool. In this way, he has “abdicated his ‘person’, with the spontaneity of its own purposiveness . . . In other words, the commander can regard the pilot during his mission as his robot, his tool.”\textsuperscript{4} Therefore, it is not qua person that X is the “carrier” of the purposes of his superiors but rather qua soldier, one who is subordinate to and operates for the sake of his commanding officer.\textsuperscript{5}

Although Jonas does not mention further examples, I think we can talk here also about farm animals, guide dogs, house, garden, and agricultural plants, and a host of other organic examples. In such cases, the living thing is used by external human agents for the sake of some goal of that same agent: e.g., I have a primrose plant in my home because I think it adds to the home décor. The plant helps fulfill my purpose of having a well decorated home. I disregard or at least subordinate the purposes and integrity of the plant, just as the commanding officer disregards the purposes and integrity of the person as such when issuing orders for his soldiers. Living things can be carriers of external purposes, regardless of their own internal status and purposiveness. (In

\textsuperscript{1}The Phenomenon of Life, 121. 
\textsuperscript{2} The Imperative of Responsibility, 55. 
\textsuperscript{3} The Phenomenon of Life, 121. 
\textsuperscript{4} Ibid. 
\textsuperscript{5} Ibid.
fact, even in cases of non-human agency, this situation still obtains, e.g., when a lion uses a zebra for food.)

To illustrate further these points, we turn to Kant’s moral philosophy. Kant famously stated, in his Second Categorical Imperative, that persons should never be treated merely as a means but rather should be treated as ends in themselves. For Kant, only non-persons, i.e., things, could be treated merely as means, that is, merely as the carriers of external purposiveness. The subject, as such, is not the mere carrier of purpose. Only insofar as he is rendered into an instrument does someone become something, i.e. a carrier of external purposiveness, which is precisely what Kant condemns. Now, bringing Kant into dialogue with Jonas, what do we see? Recall that Jonas posits that all organisms are, at least to some extent, free subjects.\textsuperscript{6} For Jonas, any organism, qua subject—which is what it is by being an organism at all—cannot qualify \textit{merely} as a carrier of external purposiveness. Only insofar as it is rendered tool-like, insofar as it is treated as an instrument, can that organism be a carrier of external purposiveness. In other words, qua themselves, living things (organic subjects) are not just carriers of external purposiveness. That is, the purposefulness pertinent to them as such is not an external purpose they carry out. Their purposefulness obtains because they have purposes “intrinsic” to themselves.\textsuperscript{7}

The primrose plant’s purpose, for instance, in growing towards the sunlight is not external to it. The plant’s growth in this way does not occur because the plant carries out the purpose of its owner who would prefer plants to cover more of the sun-lit window. Rather, the plant’s growth occurs precisely because of its own attempt to gain energy through the reception of sunlight and to process that energy through photosynthesis. The continued living and

\textsuperscript{6} Recall our discussion from Chapter One, Part III, on the “selfhood” of organisms.
\textsuperscript{7} \textit{The Phenomenon of Life}, 121.
flourishing of the plant is the purpose that explains its actions, a purpose intrinsic to the plant as such, irrespective of how it accords or not with the purposes of agents around it. The organism, as such in and of itself, is what acts for the sake of a telos.

Jonas’s position, of course, is similar to Aristotle’s, since Aristotle also posited that organisms, qua purposeful, are oriented towards their own nature-specific maturity and fullness of form. Such is the aim for them and their actions, regardless of how it benefits something else. The bird collecting twigs has a purpose for itself, i.e. constructing its own shelter, a purpose intrinsic to it and its life, regardless of who may benefit from this. (e.g., the home-owner whose lawn is now freed from fallen twigs) In addition, for Kant, the organism, as such, is a purpose; organic purposefulness is necessarily intrinsic to the organism. In short, Jonas follows upon the philosophical tradition and addresses how organisms are purposeful intrinsically, rather than merely being the carriers of external purposes. For Jonas, the organism, in its purposefulness, is not reducible to the tool status of enacting external purposes.

Mindedness and Organic Purposefulness: Humans

Hence, organisms, according to Jonas, have rather than merely carry out purposes. Yet such a position leads readily to further points about Jonas’s thought that require examination. As a way of illustration, consider the following example of having a purpose. Suppose I have the purpose of playing basketball tonight. This means that I have a concept in my mind of playing basketball later. After work, I then head to the gym and play several games of pickup basketball. My traveling to the gym is done for the sake of the playing basketball and is evidently

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8 See De Anima II.4, 415b4-5, and 21-22, as well as Physics II.2, 194a36-b3 and Metaphysics XII.7 1072b2-4 on the distinction between the aim of an action (e.g., the status of being healthy is the aim zebra’s action of eating) and the beneficiary of that action (e.g., the lion who eats the healthy zebra is the beneficiary of that action).

9 The Critique of the Power of Judgment, § 64 5:370.
purposeful. In short, we see purposeful activities, inherent to a subject, that are structured by an anterior concept, i.e., the concept of playing basketball. Such a point reminds us of Kant: “an end is the object of a concept insofar as the latter is regarded as the cause of the former (real ground of its possibility); and the causality of a concept with regard to its object is purposiveness.”\textsuperscript{10} We can also recall contemporary thinker Lowell Nissen who thinks that some form of human-like awareness is needed for purposeful behavior.\textsuperscript{11} In talking about purposefulness, therefore, we tend to ground such purposefulness in mindedness, e.g., human, conceptual mindedness.

Now for Jonas, does mindedness play a central role in the teleological activity of organisms, human or non-human? Does conceptual awareness—i.e. awareness such as exercised by humans who employ concepts—ground all purposiveness, insofar as purposeful action in organisms stems from conceptual cognition of a goal and the means to it, the way it did for me and my playing basketball?

We will first see how Jonas addresses these questions in the case of human beings. In chapter three of \textit{The Imperative of Responsibility}, Jonas addresses the question of “purpose beyond subjectivity, what sense does it make?”\textsuperscript{12} Jonas further asks if “one can speak meaningfully of non-mental purposes?”\textsuperscript{13} In response, he offers a paradigm of goal-directedness: “we know of goals in general first and foremost through what we know, that is, are aware of in ourselves—hence of conscious goals only.”\textsuperscript{14} After all, it is obvious that “conscious intention complete with the idea of a goal” is what we often refer to when we speak of purposefulness.\textsuperscript{15}

\begin{enumerate}
\item \textit{Critique of the Power of Judgment}, § 10 5: 219-20. Kant, as we saw, modifies this general definition in the case of organisms, but the main point still holds: the primary example of final causality is a case of concept-rooted action in which the object of that action accords with an anterior concept.
\item Lowell Nissen, \textit{Teleological Language in the Life Sciences}, 228.
\item \textit{The Imperative of Responsibility}, 72.
\item Ibid.
\item Ibid.
\item Ibid.
\end{enumerate}
Purposefulness would primarily mean having a goal in mind, the way that humans do, insofar as humans are emblematic of purposive beings. Something without a mind would lack goals in mind and so could not be purposeful or behave purposefully. (As we will see presently, Jonas does not consider human mindedness and the human experience of having goals in mind as the main or only examples of purposefulness, and so he does not deny purposefulness to organisms lacking human mindedness or something akin to such mindedness.)

Nonetheless, we need to say more about the connection between human mindedness and purposefulness. In that human purposefulness is paradigmatic of organic purposefulness in general, we ask, exactly what sort of mindedness obtains when we humans act purposively? Jonas states that not all human “striving” is done for the sake of conscious goals. We act for ends of which we may not be aware fully, and we may so act in ways outside our complete consciousness. We can still exercise purposeful behavior even in cases where we do not have clear concepts in mind of the goals we are pursuing: we often act without fully cognizing why we are doing so. We at times feel ourselves led towards certain ends and cannot grasp exactly why this is the case. Habitual behavior may be illustrative here, e.g., brushing teeth. We may not be readily aware of what exactly we are doing and so cannot be aware of why we are doing it. Nonetheless, it still makes sense to talk about teleology here: I brush my teeth for the sake of having healthy teeth (and for the sake of health in general). I can have varying degrees of success in this activity: I can brush my teeth well and so achieve a healthier set of teeth; or I can brush my teeth poorly and so fail to have such teeth. In other words, human activity can be purposeful

16 Ibid.
17 “But even in the brightness of our intensified mentality we know of the more or less conscious, of degrees of awareness; and to speak of a dark urge, even of unconscious wishes, and struggles in ourselves, is not considered at all nonsensical.” Ibid., 73.
even if not done in a fully conscious manner with explicit concepts in mind. The case of humans, therefore, illustrates that there are varying grades of mindedness that ground purposefulness.

A further example we can discuss is driving a car. This activity is clearly goal-directed: we have cars precisely because of their ability to get from point A to point B. Nonetheless, when driving, one does not assume a high level of awareness. A driver, for instance, who is aware of the larger context of his commute—the total number of cars on the road, an estimate of the possibility for an accident, the exact speed of the cars around him, etc.—will actually be unable to focus well enough to drive. A certain, not hyper-focused awareness is called for when driving. One is aware of and responds to his surroundings in a calm, albeit still engaged, manner. An appropriate word is non-deliberate: I do not deliberate about my awareness nor do I deliberately affect it. When driving, things pass through my field of vision, I respond accordingly, but I am not overly cognizant of this fact. I can, in fact, “space out” while driving and travel awhile without directly realizing that I have done so. Thus, we have the phenomenon of asking oneself, while driving, “how did I get here?” Yet despite this non-deliberate (perhaps limited) mode of awareness, driving is still inherently teleological. Even when I space out, I still stay on the proper road towards my destination. We again see that purposeful human activity is done according to varying modes of mindedness.

**Mindedness and Organic Purposefulness: Organisms in General**

With that point established about varying modes of mindedness in human purposiveness, we now ask: what kinds of mindedness, if any, ground the purposefulness of non-human organisms? Is it in any way a conceptual type of awareness? How does it relate back to the mindedness grounding human teleology? The quick answer is that insofar as Jonas allows for a
gradational system of minded, teleological activity in the case of humans, then he has no need to
give definite concepts or complex intelligence an absolute role in organic purposefulness in
general. He allows for a range of mindedness as grounding teleology. A cat’s behavior of
stalking and consuming prey is sufficiently akin to human behaviors such as brushing one’s teeth
or driving a car to be mindedly purposeful. Granted, human behaviors are more complex—
performing them can be complex, learning them can be complex, the context in which they are
performed can be complex. Likewise, there may be concepts at work pertinent to such behaviors;
e.g., I have concepts about how I can stop from spacing out while driving. Nevertheless, the
actions are not necessarily concept-rooted, at least in the immediate performance of them. There
is, rather, a more general type of consciousness in such goal-directed activity, the sort of
consciousness that other organisms, such as cats, can likewise manifest. The organism as aware
and responsive then seems capable of some form of ‘mined’ teleological activity.

We should clarify the use of scare quotes around ‘minded.’ Jonas talks of “psychic”
functioning as the further reaches of mindedness in the organic community. This extension may
indicate a pan-psychism: there may be “units” of “germinal, appetitive inwardness,” that pre-
exist and inform the genesis and ontology of subsequent, higher life forms. For our purposes, in
any case, “mind” or “mindedness” in scare quotes will be a shorthand for discussing Jonas’s
extension of some form of psychic striving that is connected to (i.e., not discontinuous with) full
human cognition and yet obtains throughout living nature.

Yet what is the exact nature of such a non-human “mind” that grounds teleology? The
work of Evan Thompson is a useful tool for clarifying Jonas’s contention, in that Thompson is

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18 Jonas, in Chapter Three of The Imperative of Responsibility, employs this example of feline activity to
demonstrate animal purposefulness.
19 The Imperative of Responsibility, 73
20 Ibid.
very familiar with Jonas’s work, employs Jonas’s philosophical biology, and incorporates Jonas’s ideas into current discussions on cognitive science and organic existence (e.g. the autopoietic understanding of the organism). Here is how Thompson begins his work, *Mind in Life*.

The theme of this book is the deep continuity of mind and life. Where there is life, there is mind, and mind in its most articulated forms belongs to life. Life and mind share a core set of formal or organizational properties, and the formal or organizational properties distinctive of mind are enriched versions of those fundamental to life . . . From this perspective, mental life is also bodily life and is situated in the world. The roots of mental life lie not simply in the brain but ramify through the body and the environment.  

How, though, does such organic mindedness in general relate back to human mindedness? For Thompson, organisms are “self-organizing and autonomous dynamic systems. Such systems bring forth or enact meaning in continuous reciprocal interaction with their environments.” Moreover, “this sub-personal account of cognitive systems echoes the personal-level account of the correlational structure of intentionality.” The structure of embodied human mindedness or consciousness is reflected in the structure of non-human, organic awareness. (Embodied human mindedness means “that cognition is the exercise of skillful know-how in situated and [bodily] action.” Basic human behaviors, such as learning to tie one’s shoes and then employing that knowledge subsequently, could thus be emblematic of embodied human mindedness.) In other words, a phenomenological description of human consciousness as embodied leads to the realization that non-human organisms manifest similar modes of consciousness.

22 Ibid., 26.
23 Ibid.
24 Ibid., 11.
We can see this last point clearly if we address two different albeit related positions. (A) There is first the issue of the structure of consciousness. Mind, in this analysis, is a dynamic reality that exists as consciously directed towards intentional objects. In this way, the most relevant issues are not, for instance, about mind-body interaction or about reducing the mind to the brain. Such are issues about the static existence of the mind as such. Rather, the focus here is on the ways that we are consciously interactive with the world. Mind, when seen as object-oriented and dynamically functioning, calls for an account of the structures of its activity, not an account of its existence per se, regardless of how it functions. Indeed, for Thompson, mind is such structured activity.

Hence, when we look at consciousness beyond humans, we are not looking for some feature of non-human organisms that we can isolate and term mind. Instead, we are looking at how organisms interact with the world to see if such interaction is done in a way analogous to our own embodied consciousness. Does a bear hunting salmon consciously interact with its environment in ways that are similar to how a fisherman interacts with his environment? Are there similar structures of consciousness which we find present (albeit in varying degrees) in both cases? The answer, for Thompson, would be yes: there is structure of being-aware-of-something-meaningful in both cases. The activity of fishing, in other words, is a conscious experience for both agents, in which their consciousness is structured by being directed towards a meaningful entity (fish is a source of nutrition, be it directly so or through selling it to obtain money for the sake of buying food). It is not just “shiny thing” or “swimming entity” that the human and the bear are aware of. They are aware of something as it is significant to them (i.e., relevant to their drives). Their need-based consciousness of their environment leads to a particular focus on and response to meaningful entities of that environment.
(B) The second issue concerns what we take as the prime example of minded function. For Thompson, mind is not a solitary reality generating, by itself, abstract ideas. Rather, mind’s capability to perform abstract conceptuality depends on its embodied, environmentally-interactive consciousness. An abstract thought is abstract precisely because it abstracts from the initial conscious experience of the agent. To think about the idea of computer-functioning in general is to consider, in abstract form, the computers one consciously interacts with in one’s everyday world, i.e., the computers we see, know how to use, know how to repair, etc. To doubt is to call into question what one learns about in his everyday world; e.g., I doubt that this news report I am hearing is actually true. My embodied consciousness leads me towards the world around me, not immediately inwards to the abstract realms of my own thoughts. Abstract and inner-directed consciousness, such as Cartesian mindedness, is derivative, a result of the basic modes of embodied consciousness.25

When we combine points (A) and (B), therefore, we see the following. Embodied consciousness, in its basic structures, can be found, in varying degrees, in organisms in general. Likewise, such consciousness is paradigmatic of mindedness; abstract, Cartesian mindedness is derivative from it. Consequently, ‘mindedness,’ qua embodied consciousness operating in the structures of meaningful-responses to the world, obtains throughout the entire community of life.

Leon Kass, himself deeply influenced by Jonas, reiterates this theme. (We turn to Kass here, because he, like Thompson, provides a helpful articulation of Jonas’s thought.) Kass points out that organic activity is inherently rooted in some level of awareness.26 An organism acts insofar as it responds to what it senses in its environment. The cat pursues a mouse that it sees.

25 Thompson is explicitly following Merleau-Ponty in this regard. Mind in Life, 16.
The cat manifest a degree of consciousness towards the mouse, which consciousness grounds the cat’s purposeful activity of pursuing the mouse. Kass, in fact, extends this sort of awareness throughout the range of animal activity: “Discriminative action implies discriminative awareness. And discriminative awareness, too, is present—if only in rudimentary form—even in the simplest forms of life,” such as “single-celled animals.”27 We can talk about some level of “mindedness” at work here and doing so does not require us to talk about concepts or full human-like self-consciousness. Rather, the goal-directed activity of organisms—such as the cat stalking prey or the single-celled organism pursuing sugar-rich nutrition—arises out of some sense of awareness, which is generally and structurally similar to, but certainly not identical with, the full conceptual awareness of specific human purposiveness.

Therefore, just as human purposefulness is grounded in gradational modes of awareness, so, too, is organic purposefulness, insofar as such purpose-grounding awareness ranges “from the barest irritability to the richest intellection.”28 Jonas consequently posits that “purpose is . . . extended . . . beyond human and animal . . . consciousness . . . into the physical world as an innate principle of it.”29 Granted, it is difficult to designate the exact mode and extent of “minded” purposefulness as we descend into lower organisms.30 Nonetheless, for Jonas, some form of “mindedness” obtains throughout life—as our discussions on Thompson and Kass helped articulate—and consequently grounds organic purposefulness, even in the case of amoebae sensing and responding to sugar-rich food. Purposefulness rooted in organic “mindedness” is thus “indigenous to” life.31

27 Ibid., 45.
28 Ibid.
29 The Imperative of Responsibility, 75.
30 Ibid; “how far its [purpose’s] sway in living beings reaches down can remain an open question.”
31 Ibid., 74.
Cybernetic Explanations and Organic Explanations

So embodied consciousness grounds organic purposefulness for Jonas. Yet Jonas also posits that such awareness or “mindedness” is not computer-like. Hence, our next discussion is to see how cybernetic explanations differ from the teleological ones found in organisms.

A cybernetic explanation relies on the idea that when a thing acts teleologically, it acts in a manner similar to computers or machines. Such things act in a programmed, definite manner towards certain end-states. Jonas discusses the example of a torpedo that is designed to not only move towards a target but also to react to the changes in its surroundings and in the target by altering its course accordingly. The torpedo adjusts to hit the target in the most efficient way possible.  

Hence, the torpedo receives and responds to “feedback.” The machine’s function changes according to the feedback it receives during the performance of that function. If the machine is on a course of failure—if it is moving too slowly or, conversely, too quickly—then it will “self-regulate” to re-attain a better course of action. The machine, in this case, is not like a rock falling which moves only according to physical forces acting upon it. Something apparently internal to the machine causes its alteration—and causes it in such a way to increase the likelihood that the machine will achieve the goal intended for it. The machine’s actions and corrections, consequently, can be measured according to varying levels of success and/or failure.

Jonas, moreover, says that such machine-activity is seemingly analogous to the activity of an animal. It sees a target—as well as obstacles in front of the target and the motion of the target

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33 Ibid. This issue—of how organic mindedness and its grounding of organic teleology—is an issue we will address in more detail in Chapter 6. Here, we offer a quick overview of reasons to support Jonas’s claims; there, we will tackle the complexity of this issue in a much more thorough fashion.
34 Ibid.
itself—and adjusts itself in response. Likewise, the animal moves various parts in the cue-
response behavior, much the same as machines do in their activity towards purposes. Of course,
a torpedo does not exercise this controlled motion of various, limb-like parts but instead moves
in one uniform manner. However, as Jonas mentions, the “power engine, with its levers and
joints and its voracious fuel consumption, was” akin to an animal body. In addition, animals,
like machines, are manifestly different from rocks: they move themselves towards certain ends.
Finally, the animal’s corrective, responsive motions—indeed its entire behavior relative to a
goal—can be measured in terms of success or failure. In short, an apparent similitude obtains
between the goal-directedness of a cybernetic machine and the goal-directedness of animals, i.e.,
a sensing of a goal, a coordinated self-directed movement toward a goal, and adaptiveness in
regard to obstacles of such a goal.

Nevertheless, Jonas is quick to posit that such appearances are not really accurate. To
start, Jonas points out that a machine is an un-invested entity. It makes no difference to the
machine (e.g., the torpedo) whether or not it achieves its goal (e.g., hitting and destroying the
target). Secondly, Jonas focuses on the machine-animal analogy’s understanding of feedback and
response. The analogy states that just as the machine receives information and reacts to it, so
likewise an animal receives information (e.g. sense data) and reacts to it (e.g., it moves toward
the espied prey). However, says Jonas, such an analogy breaks down insofar as the animal,
unlike the machine, also experiences need. The animal needs to evade a predator in order to
survive and needs to find water in a barren landscape in order to survive. Need is an omnipresent
factor in the life of an organism, whereas need does not obtain for a machine. It has no life, and it
consequently does not experience any sort of need relative to its basic survival.

35 Ibid., 110.
36 Ibid., 126. “Living things are creatures of need.”
This last point bears further consideration, especially in light of the fact that Jonas was both a phenomenologist and heavily influenced by Heidegger. For Heidegger, the phenomenon of being in a mood does not occur in clean-cut, subject-object sort of way. When I am in a mood of neediness, my entire way of being in the world is colored and affected by this sense of need. The mood seems to envelop me; I can talk about being in a mood, that is, about being involved in something that, experientially, lies outside and beyond me. My mood, my sense of need, does not merely reside in me. I am enmeshed in that state in which I happen to be found. My entire existence—in that it always is a being towards, a being with, and a being relative to what is around me—is involved in this state of need, insofar as everything I am towards, with, or relative to makes present this sense of need. Hence, from a Heideggerian perspective, something that experiences need exists in a state of neediness, a state in which one is involved.

Transferring these ideas over to Jonas and his extension of Heidegger’s thought to life, we note immediately that insofar as the organism experiences need, which Jonas says is basic to its life, then the organism, following Heidegger’s analysis, will find itself in a state of neediness. What it is and what it relates to is colored and affected by that neediness. The needy organism exists in a world that shows up and is structured relative to that need. The organism moves through its state of need to a state of satiation or satisfaction, at least temporarily speaking.37 (I say temporary, because, as Jonas is fond of saying, the being of the organism is its own doing, and it must constantly be doing in order to be at all.)

In any case, the organism’s state of need is a fundamental component to its teleological activity. The organism, existing in a state of neediness, which state is constant, though sometimes more pronounced than others, moves in that state towards a goal that can satisfy its

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37 Ibid. “Living things have needs and act on needs.”
need. The teleological motion is thus precipitated by the state of being in need. Jonas, moreover, sees this state of need as inherently *emotional*: for instance, an organism needing food feels the “pangs of hunger.”\(^{38}\) In fact, absent that affective state\(^ {39}\)—i.e. were the organism somehow to be found in a state of satiation-completion—then there would be no motion towards need-satisfying goals. The sensation of the organism, consequently, is not a sufficient condition to move it towards a goal and to continue in that action while responding to its environment. Nor is it sufficient to account for the organism altering which goals it seeks and the manner in which it seeks them. The goal-directed organism does not merely see and act. *It exists in an affective state, from which state it sees and acts.* “The cybernetical model reduces animal nature to the two terms of sentience and motility, while in fact it is constituted by the triad of perception, mobility, and *emotion.*”\(^ {40}\) The seeing and acting are thus rooted in something more primary, and alone they cannot account for what the organism does. The organism’s teleological orientation and behavior arise out of its affective state of neediness.\(^ {41}\)

This affective state of being-in-need, however, is not found with machines. They have, as we saw, no basic needs. They likewise have no sense of care or interest. They lack all affectivity and emotion. They do not and cannot exist in affective states. There is no being-in as such for a machine, in that a machine does not care. Nevertheless, that state of being-in-need was, we said, constitutive for the teleology of organisms. They act for goals from within their states of

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\(^{38}\) Ibid.

\(^{39}\) The term “affective states”—my own term—refers to those states of being in which some emotion(s) play a decisive role in the structure of the state and the way it is experienced. For example, an affective state of depression is one in which my mood is sad or apathetic, things appear meaningless or joyless to me, and I find myself removed from the normal pleasures of life.

\(^{40}\) *The Phenomenon of Life*, 126. Emphasis mine. In fact, in structuring the activity of the organism, “emotion is more basic than” perception and mobility. (Ibid)

\(^{41}\) See also, *Philosophical Essays*, 199. There, Jonas discusses want rather than need. Nonetheless, the same structure obtains: the organism is in an affective-state from which it acts for the sake of goals. “The organism basically is ‘in want’” and hence, “teleology is the concomitant of want (or vice versa).” Organic teleology is rooted in affective states.
neediness. The disinterested and disengaged machine, for which the issues of life have no bearing or relevance, is quite distinct from the organism on this point.42

Indeed, for the machine, such a removal from the issues of life (care, need, being-in, etc.) is important and beneficial to its functioning. A machine is reliable and employable precisely because it is never in a hungry, angry, tired or lonely mood. Its calculative and computational abilities are not tied to any affective state; such machine functions are not prone to human error, unlike the rest of us in our affective mood-states. A machine is designed intentionally for its ability to act unlike an organism, to function apart from the cares and concerns that surround and structure the organism in its being-in-the-world. A machine is therefore not animal-like; hence its teleology will not be animal-like either, in that it does not arise from (nor is connected at all to) any affective state of neediness or any affective state at all. The goals of the machine and its pursuit of such goals, whatever they may be, are structurally disconnected and distinct from the goal-directed activity of the needful organism.43

Nonetheless, we should pause to address the fact that Jonas’s analysis seems incomplete. After all, many animals and seemingly all plants do not have emotions. Hence, any application of affectivity, even in an extended sense, to such organisms is difficult, if not impossible. A lion may be afraid and act teleologically to survive in face of that fear, but what sense does it make to say that a spider or a sunflower plant does the same? Just because the spider and sunflower experience need does not imply that they are feeling entities Therefore, there is further

42 Ibid. “There is no analogue in the machine to the instinct of self-preservation.”
43 A point of clarification. Obviously, computer-like machines have many capacities not found in normal machines; e.g., a computer is much more complex than a snow-blower. Nonetheless, they both carry out the purposes of their users and neither, in and of themselves, experience need (or anything at all for that matter). The complicated and interconnected programs of a computer do not render them, for that reason, any more organic than the aforesaid snow-blower.
discussion required concerning Jonas’s idea in that organic teleology, as rooted in affectivity, differs from cybernetic teleology.

The first point to be made in response is that Jonas does not, in this analysis, address plants and their organic (as opposed to cybernetic) mode of teleology. Recall the quotation presented above: “The cybernetical model reduces animal nature to the two terms of sentience and motility, while in fact it is constituted by the triad of perception, mobility, and emotion.” Clearly, Jonas is talking about animals here as opposed to computers. He is not, therefore, attempting to ascribe to plants anything like affectivity which could ground their teleology in a properly organic, non-cybernetic manner. Yet the fact that Jonas’s analysis neglects plants does seem to indicate its incompleteness. In other words, does Jonas offer any way of accounting for how plant teleology could differ from cybernetic teleology? In the following section, we will address how Jonas’s thought on teleology in general can include plant teleology. And in Chapter 6, we will address more specific questions that concern Jonas’s approach to plants and their teleology, as different from cybernetic teleology.

But what about lower animals, such as insects? They do not seem to have emotions; how exactly do they figure in Jonas’s understanding of the tri-part constitution of animal teleology? Perhaps a helpful concept to consider here is how such lower animals evince behavior that, on the level of appearances, are akin to emotion-laden behavior in humans. Bugs seem to squirm when captured; is that similar to a human (or dog) writhing in pain? Cockroaches, equipped with “minute sensory hairs,” move rapidly away from an impending threat, (such as a downward moving foot); might that be similar to the fear-responses, e.g., flight, experienced by humans and cats and bears, etc.?44 “The most powerful chemical sensitivity known is found in the male silk

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44 *Biosphere*, 552.
moth, [which] can detect a single molecule of the sex attractant, \textit{bombykol},” could this be similar to the lust that grounds human sexual activity?\textsuperscript{45}

I am reminded, at this juncture, of ideas from Wittgenstein and Kripke concerning emotions and the detection of their presence in human agents. In short, both thinkers contend that if something acts and responds as if it had emotions, then likely it is a feeling being. Analyzing c-fibers or neurological reactions are beside the point, as it were. The explicit behavior of the entity in question is what can be addressed and determined to be either emotion-laden or not. Thus, transferring these ideas over to our discussion on the possible emotionality of lower organisms, we can say the following: in looking at the potential affectivity of basic animals, maybe we should see if and how their behavior seems emotion-laden. After all, post Descartes, emotions were not often ascribed even to dogs and cats, despite their obvious and apparent affectivity. Since the search for emotionality looked inward, and there was little access to or knowledge about the interiority of such animals (if such interiority were even acknowledged), then inner states, such as emotions, would not obtain for those animals, despite external appearances (e.g., this dog seems to be whimpering \textit{in pain}). So the move beyond a strictly interior analysis of emotions opened the door and provided credence for the idea of animal emotionality. Perhaps a similar approach—the proverbial “if it looks like a duck, moves like a sounds like a duck…”—will provide a further understanding of the extent of emotions in the animal kingdom.

Given Jonas’s aforementioned extension of mind with life, we should also avoid addressing the apparently “emotional” activity of lower organisms as being merely a biochemical stimulus-response mechanism. Jonas’s contends that such “minded” organisms are

\textsuperscript{45} Ibid., 553.
world-forming and world-inhabiting selves, vested in and “concerned” about their survival. A fear based response enacted by a human agent—e.g., avoiding one’s boss at work—could be explained merely as the result of bio-chemical reactions occurring in the body that lead to the movement of limps, but such a reductionist explanation fails to account for the person’s being-in-the-world (her job, its tenuousness, her awareness of that tenuousness, her relationship with her boss, etc.) and how it is in and according to such being-in-the-world that the person feels and acts from fear. A similar non-reducibility and state of being in the world would hold for lower animals as well, according to Jonas, in their experience of emotion and enactment of emotion-laden behavior. The aforesaid cockroach, out of “fear,” may flee an imminent threat in its environment (e.g., a foot coming down toward it), just as the worker, out of fear, flees from an imminent (or at least perceived to be imminent) threat in her environment. Lower organisms, in this manner, may thus exist in and act from the sort of affective states discussed above. If so, then maybe spiders, qua “affective,” exercise an emotion-laden teleology different in kind from the a-emotional teleology described in the cybernetic model.

As we close this section, one final point will be made. Obviously, Aristotle and Kant had no knowledge of and hence could not employ computer-analogies to the teleology of organisms. Given Aristotle’s bio-centric approach, I think it unlikely that he would have even if such analogies were available. Likewise, Kant reserves for the organic its own teleological integrity, importantly different from explanation per se.46 On the other hand, the rational calculus of a computer-machine—with its seeming goal directed activity informed by information feedback systems—serves in contemporary thought as a ready analogue (or even paradigm) for

46 Recall his famous dictum about there being no Newton even for a blade of grass.
teleological activity. In this way, the contemporary position stands as precisely what Jonas criticizes: it sees organic activity as caused by the intake of and response to information—both initially and throughout the course of its action—without regarding the affective states of the acting organisms. Even without a Heideggerian analysis of being-in, the mere fact of feeling is left quite underdeveloped in the contemporary understanding of organic teleology. The organism is reduced to calculating entity, operating merely according to the perception of goals and the means to achieve them. Thus, Jonas’s point on distinguishing cybernetic from organic teleological explanation highlights the crucial oversight in contemporary thought regarding the role of emotions in organic activity and life. Jonas offers a helpful addition to our current understanding of how organisms, in their goal-directed activity, differ from machines, even computers.

The Extension of Teleology in Organisms

Before we close this part of Chapter Three, we must address one last set of questions. What is the role of plants in Jonas’s philosophy of organic teleology? After all, as we saw, Jonas does not include plants in his discussion on the difference between organic and cybernetic teleology. Hence, although Jonas analyzes the phenomenon of Life and the teleology found within it, which would seem, of course, to include plants and their teleology, his analysis of organic versus cybernetic teleology pertained specifically to animals. Should we assume, then, that all of Jonas’s ideas on organic teleology do not pertain to plant life or pertain only in a small way? Does Jonas see plant-organisms as qualitatively distinct from animal (or even amoeba) and perhaps even non-purposeful?

47 Recall our discussion in Chapter Two, Part III, on the concept in contemporary thought that computer language, such as programs, was the best way to explain organic teleology
On the one hand, there are good reasons to exclude plants from Jonas’s presentation of organic teleology. First, as we just saw, Jonas appeals to emotions, a distinctly animal characteristic, in order to differentiate organic purposefulness from cybernetic purposefulness. Absent the feeling of need and its role in organic teleology, what sort of teleology could be found in plants? Secondly, we note that Jonas does not attempt a removed perspective on the activities of non-animal organisms to see how teleology may be present within them. He offers no explicit examples that easily demonstrate that plants act purposefully. In this manner, Jonas differs from the other philosophers of teleology: e.g., Aristotle discusses plants growing leaves, and Kant devotes an entire chapter to the teleology of trees. Instead, his philosophy of biology first concerns more general features of all life and then narrows in on animals and humans in particular. He even offers a penetrating analysis of amoebae and their identity conditions throughout their metabolic processes. Thirdly, Jonas discusses how plants, unlike animals, lack a centralization of their operations, a core part that governs and directs their actions, above their constant changes. Jonas posits that there is a loss of “original individuality” within “the vegetable kingdom;” even a highly developed plant lacks the centralized individuality of an amoeba. The amoeba, in fact, in virtue of its simple structure, is more cohesively integrated. Hence, the plant would not qualify as a full self, capable of its own agency and activity. Thus, its actions are—more properly speaking—"governed from without" by such things as the wind and governed from within by its more basic cells. In this vein, the plant seems to be an epi-phenomenon of the more real and basic cells composing it. In that case, there would be no plant

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49 Ibid., 200.
50 Ibid., 205.
51 Ibid., 205, n. 9.
teleology, as there would be no plant, as such, that structures and informs its own internal teleology. From this perspective, plants seem absent from Jonas’s analysis of organic teleology.

On the other hand, there are reasons to think Jonas does include plants in this analysis. First, there is a strong implication that Jonas positions plants fully within the organic sphere, with all the philosophical ramifications that pertain thereto. For example, we see Jonas’s discussion of an “ontological revolution.” When organisms first appear, they make manifest a radically new way of being. All organisms are thus ontologically similar insofar as they are ontologically distinct from inanimate matter. In fact, Jonas posits that trees are a prime example of this new, ontologically distinct mode of being. Plants, consequently, appear to warrant the same philosophical consideration as other organisms. Secondly, Jonas posits that all organisms, by the very structure of their nature, are teleological. In fact, he writes that “the purposiveness of organisms” is “effective already in all vegetative tendency, awakening to primordial awareness in the dim reflexes, the responding irritability of lowly organisms.” The “vegetative tendencies” of “lower organisms,” involves therefore the exercise of purposefulness. Organisms, as such, are purposeful. As Jonas scholar, Nathalie Frogneaux, says: “bio-morphism [the perception of organisms in terms of their metabolic activity and structure] allows us to detect the functionality of organisms and also the immanent purpose at work in living beings.” Frogneaux thus sees metabolic activity and structure as indicative of the purposefulness intrinsic to organisms, even in their vegetative ones. Thirdly, in his essay on “To Move and to Feel: The Animal Soul,” Jonas posits a similarity between the nutritive activities of plants and the nutritive

52 The Phenomenon of Life, 81.
53 See Memoirs, 238-239
54 The Phenomenon of Life, 90.
55 Ibid. Emphasis mine.
56 We will, in Part III of this chapter, discuss more about how teleology structures organisms.
57 Nathalie Frogneaux, Hans Jonas ou la vie dans le monde, (Bruxelles: De Boek, 2001), 171. (emphasis mine)
activities of animals. Both are actions done for the sake of obtaining external food sources, elemental nutrition from the soil in the case of plants, plants themselves or other animals in the case of animals. The fundamental, life-sustaining, and obviously teleological activity of food-getting is common to both animals and plants according to Jonas. Thus again, we see good reason to think that Jonas includes plants in his analysis of organic teleology.

In short, we have two different and opposed interpretations on Jonas’s thought concerning plants and their teleology. On the one hand, there are ideas from Jonas that seem to exclude plants from his analysis of organic teleology. On the other hand, there are different ideas from Jonas that seem to include plants in that same analysis. Given this interpretive conundrum, it may be wise to turn to the following statement from Jonas:

The fact that metabolism occurs for the sake of the production of energy and that the primary form of this metabolic activity, plant photosynthesis, serves as the basis for the entire web of life on earth, does not require here any further explanation. Nonetheless, we should say that the following descriptions are mainly suited for the model of animal metabolism. Not everything of this model applies, without modification, to plants. Here, Jonas is saying that the existential interpretation of metabolic organisms takes animals as its prime example. Hence, the “descriptions” of metabolic activity and life, which he is about to discuss in more philosophical detail, primarily concern animals; not all such descriptions are readily suitable for plants. Nonetheless, Jonas does not say that such existential descriptions are completely unsuitable for plant life. Rather, they must be modified in order to apply properly to plants. From a more classical perspective, we could say that Jonas is using the tool of analogy: metabolic life of animals is the prime analogate, and plant-life metabolism is analogous, though certainly not tantamount, to animal life.

59 Hans Jonas, Philosophische Untersuchungen und metaphysische Vermutungen, (Frankfurt am Main: Insel, 1992), 83, n. 1.
Consequently, we may be able to offer some reconciliation between the opposing interpretations. Granted, Jonas does draw important philosophical distinctions between animal and plant life: for example, the former is emotion-laden and mobile, whereas the latter is not. Granted, too, is the fact that when talking about the philosophy of organisms in general, Jonas’s main focus is animal life. However, such a preference does not negate the place of plants within his philosophical biology. Insofar as the basic philosophical (i.e., existential) structures of organic life obtain in the case of plants—with their constant, metabolic activity in their surrounding environment for the sake of staying alive in a complete manner particular to their species—then likewise can there be a teleology that obtains in plants, albeit much less robust than the teleology of animals. For instance, plants are also creatures of need—albeit not felt-need as is the case with animals—and so their teleological activity is more akin to the need-based, purposeful behavior of animals than it is to disinterested, cybernetic teleology of machines. The animal may feel its need and may have much greater freedom and awareness in its purposeful behavior, but the plant’s activity is of the same general type. Thus, Jonas “argues that all organisms, on some level, exhibit concern with their own being and pursue a telos.”

Part II: The Teleological Parts and Activities of Organisms

Now that we have seen some general ideas from Jonas on the teleology of organisms, we turn to a specific issue, namely the teleology of organic parts and organic activities. From the start, it is important to note that parts and activities are not, within the actual existence of the

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60 Hans Jonas’s Ethic of Responsibility, 74. Nevertheless, this ambiguity on the part of Jonas concerning the role of plants in his philosophy of Life is an issue we will take up more directly in Chapter 6, when we offer a critical analysis of his thought.
organism, readily separable. After all, a basic activity, such as respiration, is done by the lungs of an animal. The activity is connected inherently to the part (breathing is always performed with the lungs), and the part is inherently connected to the activity (the lungs cannot be understood without this function of breathing). For Jonas, for whom the being of an organism is its own doing, parts and activities do not obtain independently of each other. The part is structured by the activity it performs, and the activity is grounded in the corresponding part. Nevertheless, insofar as we have distinguished parts and activities in our prior examinations in Chapter Two on philosophical teleology, then so, too, will we address, in distinct sections, Jonas’s thoughts on the purposefulness of parts and his thoughts on the purposefulness of activities. We thus offer separate analyses of what stand together in the actual existence of organisms.

_Preliminary Observations about the Parts of Organisms and Teleology_

We start with Jonas’s ideas on the teleology of organic parts, He first makes some telling remarks about the etymology of the term, “organism.” Jonas contends that the term derives from the Greek root, _erg_, meaning “work.” That is, an organ (deriving from _erg_) is “something which performs a ‘work’ . . . or with which a work is performed.” As such, then, the organ is a tool-like, because its’ very being and identity is constituted by its being directed toward and carrying out certain tasks. For instance, the heart has the work of pumping blood in animals. If we talk “of ‘organism’ . . . [in] the original, literal sense of the word, we would already be talking about a purposive entity, for ‘tool’ cannot be thought of without the idea of ‘purpose.’”

Now Jonas does not take this etymological study as proof of the real purposefulness of organisms and their

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61 The Imperative of Responsibility, 58.
62 Ibid.
parts. This study does demonstrate, however, that for Jonas, an organ (or any organic part) can be shown as purposeful insofar as it adequately resembles the more noticeable purposefulness of artificial tools, such as hammers. The hammer, teleological in its “origin and . . . being,” stands as a paradigm for any organic part qua teleological, in that it functions for the sake of a goal. In other words, Jonas’s own task is to see if organic parts, despite not being intentionally willed in their origin and being as are hammers, can still qualify as teleological.

Nevertheless, an important caveat is required here. The hammer is paradigmatic insofar as its work clearly is goal-directed. On the other hand, it is not paradigmatic for the teleology of organic parts insofar as it is (A) completely non-“minded” and (B) intentionally designed, made, and used by external agents. Jonas, as we saw, sees some form of consciousness, no matter how rudimentary, as foundational for organic teleological activity. We also need to go back to the issue of how Jonas differentiates between having purposes and carrying out purposes. Thus, an organic part is not necessarily teleological, despite its seemingly close resemblance to a tool or a machine part, since organic teleology includes features beyond mere artifact teleology. Since that artifact, tool, or part (and the relevant machine to which it belongs) is not minded and merely carries out, rather than possesses, purposes, resemblance to it does not guarantee genuine purposefulness for the organic part. For the organic part to be purposeful, qua organic, its possession and exercise must relate back to the “mindedness” and purpose-havingness of the relevant organism. After all, a tool or machine may be teleological in its “manufacture,” but it is not teleological “in its functioning,” because it is a non-minded carrier of external purposes. The tool-machine does not, properly speaking, function by itself at all and hence has no true

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63 Ibid. “The success story of a name naturally proves nothing of a substantive issue.”
64 Ibid.
65 Ibid.
66 Ibid., 65.
teleological function as such. If, therefore, organic parts are to be purposeful, then they must be purposeful in ways that are both similar to and distinct from tools and machine parts. The organic part, like the tool, must be goal-directed and act for such goals, but unlike the tool, the part must have its own purposes and “mindedly” function inherently, i.e., not in a pre-programmed manner according to the purposes of an external agent.

That background information established, we now turn to Jonas’s examination of purposeful organic parts. Jonas, at first, seems to adopt an evolutionary-type perspective in defense of the obvious teleology of organic parts: such parts have evolved and function as they do for the sake of the organism to which they belong. They have evolved in a manner that serves the purpose of the survival of the whole organism. Here, we see concepts used by Darwinian thinkers on the question of teleology. For example, Michael Ruse and Mark Perlman both posit the survival of the organism as the ultimate end of evolved organic parts. So is Jonas merely following Darwinian thought in defending the teleology of organic parts?

The answer is not a simple yes or really a yes at all. Immediately after positing the abovementioned ideas, Jonas writes: “Stating matters thus asserts nothing yet about the kind of causality at work, [for example] whether it is teleology (‘final causes’).” But why does Jonas not accept that such seemingly goal-directed activity is teleological? Jonas looks at the “the reigning theory” of evolution and examines its account of the “genesis” of organic parts, both in

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67 A tool is always the tool of someone, some external agent who possesses and employs it for his own sake. The activity of the machine is not its own but rather its carrying out the intention of the external agent. A car must be started and driven intentionally by someone. Its function is really just an extension of the intention of the agent; hence is not a genuine function for it at all. On the other hand, organs do not need to be “started” and “driven” intentionally by agents. Rather, a heart, to some extent on its own, pumps blood. I say to some extent, because this operation hinges on and is tied to other operations within the organism, a point we will return to later. However, the main point still holds: the organic part functions inherently—though not totally so—whereas the tool’s or machine’ function belongs really to the external agent.

68 The Imperative of Responsibility, 65.
69 See our discussion from Chapter, 2, Part III.
70 The Imperative of Responsibility, 65.
terms of their “ontogeny” and their “phylogeny.”

In doing so, Jonas finds that from neither perspective can we say that organic parts were purposefully made. The ontogenesis of organic parts is “the causally necessary execution of genetic determinations . . . contained in the seed.” The phylogenesis of organic parts follows from “the concurrent mechanics of random variations . . . and natural selection.” In both cases, “no teleology . . . need be invoked,” and any talk of organic parts being purposeful because of their genesis is relying merely on the apparent purposefulness of such parts. Hence, Jonas does not see the theory of evolution, as commonly understood, as capable of grounding the purposefulness of organic parts.

We should clarify more about this last contention of Jonas’s. We first note that in this way, Jonas’s position here resembles Robert Cummins’s contention that the mere presence of a part seemingly beneficial for the organism does not, as such, demonstrate the innate purposefulness of that part. If an organic part arises solely as the result of the random mechanics of evolution, and if the part’s operation can be explained through an efficient causality model, then the part is not really teleological at all. Of course, some may contend that the contribution of a part to the survival of the whole is sufficient for qualifying the part as teleological, regardless of the random genesis of the part. Jonas, though, does not accept this idea and contends that if part-teleology means something, it must mean more than mere benefit.

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71 Ibid., 66.
72 Ibid.
73 Ibid.
74 Ibid.
75 Ibid.
76 As we will see, Jonas accepts the idea of a gradual development of life from basic life-forms; he just thinks that the common view on this process is not sufficient to account for the purposefulness of organisms and their parts. Jonas does not deny the general thrust of the theory of evolution; rather, he tries to bring other perspectives into dialogue with it, so as to render it better able to explain the phenomenon of life as we experience it today. In Chapter Five, we will give a more thorough examination of Jonas’s views on evolution and teleology.
77 See Cummins’s comments discussed in Chapter 2, Part III, page 137.
78 See, for example, Robert Augros, “Nature Acts for an End,” The Thomist, 66 (2002): 549. “The organs of animals are so obviously made for definite purposes that even a nonspecialist can figure out what kind of life an animal leads simply by looking at the equipment it has been given by nature.”
for the survival of the whole. Organic parts, if teleological, must instead arise and operate in some purposeful manner.

Jonas’s position relates back to Aristotle. For Aristotle, spontaneous events may occur that just so happen to aid the survival of a non-rational organism. For instance, recall our discussion from Chapter Two, Part I on the horse surviving a battle by going to drink at a nearby stream. This fact of abetting survival does not, in itself, indicate the operation of purposefulness, because the causality is not done for the sake of survival. The horse went to the stream for the sake of drinking water, not for the sake of surviving the battle. Similarly, from Jonas’s perspective, the evolutionary account states that organic parts did not develop for the sake of the organism and its survival but rather develop because of antecedent causes (i.e., “concurrent mechanics”) that fully account for their genesis. There is no final-causality at work; the fact that such parts prove essential for organic survival is purely spontaneous, not purposeful. Hence, Jonas must look elsewhere in order to establish the purposefulness of organic parts.

“Minded” Teleology and Organic Parts

As would be expected, Jonas turns here to an analysis of “mindedness.” In short, Jonas contends that organic parts, even vegetative ones, are purposeful insofar as the exercise of “mind” is found in them. Unpacking this contention will be our current task.

We have already discussed the range and basic structure of such “mindedness” for Jonas. Now we need to understand exactly how it pertains to organic parts and their purposefulness. To start, we note Jonas’s idea that the presence and operation of “mind” in organic parts is not like human consciousness. Jonas regards such an ascription of full mindedness as “the height of folly.” (The Imperative of Responsibility, 72)
My heart is not purposeful because I consciously intend it to be so, nor are the kidney of a dog or the root of a tree purposeful because of such intentionality. These parts, even in fully rational agents, function outside of such intentionality.

Nonetheless, insofar as they are found within living things, such parts will belong to the relevant “contexts of organic mindedness.” The first such context concerns the fact that the development of these parts is not totally mechanistic or random; some form of “mindedness” was present from the start of the process of life itself. Jonas leaves open the precise form of that “mindedness”, e.g., whether it is a panpsychism or not. Nonetheless, there is, for him, some directional-type activity at work: the basic life forms are oriented towards greater expansion and complexification. Jonas does not think such a process follows an *a priori* blueprint: there is no plan that basic life form A evolve into B or C. However, A’s evolving does indicate that it senses something more towards which to strive. Hence, as this complexification and expansion of life forms continued and increased, there was always, according to Jonas, some element of “mind” at work informing this process towards previously unknown or unplanned forms of life. As organisms and their parts developed, therefore, they did not do so because of completely mindless and random mutations nor because of environmental conditions that forced such development. Instead, Jonas thinks they developed because of a “sensing” and “striving” process.

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80 Ibid.
81 NB. Contexts of organic mindedness is my own term and not Jonas’s. It is being used here to describe the several different ways in which “mindedness” (and hence “minded” purposefulness) pertains to organisms as well as their parts and the operations of such parts.
82 *The Imperative of Responsibility*, 73
83 Ibid., 75. Here, Jonas talks about a “laboring towards something” performed by nature in the first development of Life. That is, basic life forms are merely the beginning of a “tortuous” process towards higher and higher types of organisms.
84 Ibid., 73-75. Analogously, one may try to move beyond his current mode of life—his job, his circle of friends, his daily routine, etc.—and not know exactly that towards which he is moving. That is, he is not pursuing an explicit dream or desire but rather following a vaguer motive towards a different manner of life. As Jonas himself says, there may be some not fully conscious, “dark urge” which spurs him towards these new modes of life. (Ibid., 73) In a way that he cannot readily understand or articulate, he senses a new sort of life to try to achieve. The not fully conscious striving of the human agent is thus analogous to the striving of the basic forms of life.
of life towards expansion and complexification, towards a furthering of life itself.\textsuperscript{85} The genesis of organic parts is a “minded” process.

Consequently, such parts can be purposeful. Such parts, after all, arise because of the basic striving for life. As Jonas says about the original formation of Life: “nature evinces at least one determinate purpose—[L]ife itself.”\textsuperscript{86} The very process of Life coming to be at all and growing is no mere accident but rather is “a purpose” of the larger nature from which it arose.\textsuperscript{87} Even at this rudimentary level of the genesis of life, then, are “mind” and purpose present, insofar as the two, for Jonas, obtain together.\textsuperscript{88} In addition, such minded purposefulness becomes more pronounced as we move to higher and higher life forms. “Purpose is set free” in life, as it becomes more real, robust, and articulated in the ascending grades of life and their more complex forms of “mindedness.”\textsuperscript{89} Therefore, we see the context in which individual organisms and their parts arise: they are the result of “minded,” purposeful striving in life. They follow from and connect back to prior processes of development that “mindfully” had striven for the formation of such parts, albeit not deliberately or explicitly, as discussed above.

In this way, organic parts will likewise manifest a similar sort “minded” purposefulness. That is, they likewise will be oriented towards the continuation and flourishing of life. For instance, even on the level of plant-organisms, we see the following case of end-oriented parts. “The vascular plants (tracheophytes) comprise the vast majority of today’s plant species. The tracheophytes have two types of specialized conducting tissues: xylem, which transports water and minerals, and phloem, which distributes organic food from one part of the plant to the

\textsuperscript{85} Ibid., 73. Jonas’s ideas on evolution and how he conceives of “mind” functioning in evolution are topics we will take up in Chapter 5.
\textsuperscript{86} Ibid., 74.
\textsuperscript{87} Ibid.
\textsuperscript{88} See our discussion in Part I of this chapter on how Jonas connects mind and purpose.
\textsuperscript{89} \textit{The Imperative of Responsibility}, 74.
other.\(^{90}\) At their basic structure, most plants possess tissue-parts that function for the sake of basic nutrition. In more complex organisms, the same pattern obtains. For example, coelomate organisms, such as worms, possess a “gut [that] has specialized regions along its length. . . There are regions whose primary functions are grinding, swallowing, digesting, and absorbing food; there are others for the temporary storage of food, and yet others for the concentration and elimination of waste.”\(^{91}\) The “gut” of such organisms is directed toward the full range of essential metabolic activities. We see again how organisms possess basic parts that orient toward the intake and proper processing of nutrition. As Jonas says, such parts, manifests a sense of “aim and urge” towards basic nutritive processes.\(^ {92}\) They “strive” toward certain goals, in and of themselves.\(^ {93}\) In short, given the overarching context of the “minded” and purposeful development of life, organic parts are therefore inherently teleological for Jonas.\(^ {94}\)

To avoid confusion here, we perhaps should be clear on what Jonas is not saying. He is not saying that organic parts are purposeful because an agent makes them intentionally. Also, he is not a Transcendental Idealist; the purposefulness of organic parts, according to Jonas, is not a heuristic but an actual feature of the world. We note, too, that God is no intelligent designer for Jonas (as we will see in greater detail in Chapter Five), and nature is not God-like for Jonas, even if it is mind-like.

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\(^{91}\) Ibid., 452.

\(^{92}\) *The Imperative of Responsibility*, 73.

\(^{93}\) Ibid.

\(^{94}\) Of course, Jonas’s position here—that life and organic parts develop in a “minded”, purposeful, albeit non-designed or intentional fashion—is rather controversial. For example: what sense does it make to say that “mind” operates in the formation of amino acids? We see no current evidence of mind really at work in such building blocks of life; why should we assume mind was present eons ago in the origin and formation of them? And yet Jonas feels he must accept that rather extreme view in order to posit purposefulness for organic parts at all. Does such an extreme position therefore weaken Jonas’s overall presentation on teleology and organic parts (and organisms in general)? For now, I merely note these problems. However, in Chapter Five, where we offer an in depth discussion of Jonas’s thought concerning evolution, we will re-asses these questions, seeing if Jonas’s can answer them or at least work around them or whether they indicate some important flaws in his project.
However, we need to examine a further context of organic “mindedness” and purpose. This is the context of the organism itself to which such parts belong. After all, a part is such because it is part of a whole, and the whole organism’s relation to the part is another dimension worth analyzing. So what relevant features of the whole organism are significant for this analysis? Jonas, as we have seen, posits a non-reductive, holistic view of the organism. It exists and operates above its component parts, all of which are in a continuous state of exchange with the surrounding environment.\(^95\) In fact, Jonas thinks that such holistic, formal causality is essential for what an organism is at all.\(^96\) The en-formed organism is the immediate context in which organic parts exist and operate. Yet such a context is not a mere placeholder or static background for the parts. The dynamic, organizational structure of the whole is manifest and operative throughout the entire organism, including all of its parts. As Leon Kass says in his presentation of Jonas’s thought: “the joinings and motions of the material parts are caused and governed by the organization” of the whole, en-formed organism.\(^97\) “Even at the cellular level and even in the simplest organisms . . . the sequence of reactions is ordered and directed by structural and functional arrangements” of the en-formed organism itself.\(^98\) Organic parts function under and according to the dynamic arrangement of the whole. And that whole, as a subject-like and “minded” organism, is likewise “mindedly” purposeful in its actions. It acts for the sake of goals. Hence, the parts belonging and subordinate to the whole organism will also be goal-oriented towards the whole organism, as their function accords with the larger, “minded”

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\(^{95}\) See our discussion from Chapter One, Part III on Jonas’s understanding of the holism of organisms.

\(^{96}\) See Hans Jonas, *Memoirs*, 224-225. Jonas states that “in organic configuration, the material element ceases to be the substance . . . and is now only the substrate.” The form “itself is that which actively draws material into itself and pushes it out of itself and builds itself from it.” Thus, “the organism is always . . . the form of a determinate manifold of matter” and “alone is the concretion of its [the organism’s] unity, where unity is taken not as a logical attribute, but rather as a productive completion.” Leon Kass, in his interpretation of Jonas, calls this situation in organisms, “The Primacy of Form.” Leon Kass, *The Hungry Soul*, 40.

\(^{97}\) Leon Kass, *The Hungry Soul*, 42.

\(^{98}\) Ibid.
purposefulness of the whole. In this manner, the final causality of the organism connects to the formal causality of the organism. The formal part-whole organization of the organism, which informs and governs the structure and activity of the parts within the whole, likewise informs and governs the purposiveness of those same parts and their activity.

We now should bring together these two contexts and see what follows for our discussion on the teleology of parts. We note that organic parts are inherently goal-directed, both because of their “-minded” formation and because of the “mindedness” and wholeness of the organisms to which they belong. Hence, when we posit the existence and operation of “mind” in the two organic contexts—i.e. (A) the original development of life forms, including organic parts, and (B) the context of the whole organism to which such parts belong—we see the following. Context A informs the general striving of organic parts towards the continuation of life. Context B refines and specifies that striving so that the function of the part is tied up with the existence of the particular whole organism to which it belongs. Hence, given A and B, parts will be oriented towards immediate and final goals. “A digestive tract [organic part] is for digesting [immediate goal] and for thereby keeping the organism alive and in good shape [ultimate goal].” In which case, says Jonas, “it is meaningful and not just a metaphor borrowed from our subjectivity, to speak of the immanent, if entirely . . . involuntary, purpose of digestion and its apparatus in the living body, and to speak of life as the end-purpose of just this body.” For Jonas, even basic,

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99 The Imperative of Responsibility, 51. NB. In the following part of this chapter, we will see how this two-fold teleology plays out in the holistic structuring of the organism. There, we will offer a more detailed analysis of how the ultimate telos of the organism serves to unify and integrate it. Here, we merely note this integrated structure as the proper context for organic parts and their respective functions.

100 Ibid., 75. Also worth noting here is Jonas’s anti-Kantianism. That is, Jonas does not think it merely a heuristic to conceive of the digestive organism as purposeful; the purposefulness of the digestive system is not just a helpful tool for us to understand them. The system, insofar as it developed from and belongs to minded, purposeful life-forms, is really a purposeful entity.
nutritive parts of organisms qualify as purposeful. He has robust sense of the teleology of organic parts as being oriented towards immediate and ultimate goals.

As we reflect on Jonas’s position, we note some Aristotelian features. Nature could be seen the “minded” source of organic-part development.\(^{101}\) We see ideas akin to Aristotle’s famous statements in *Physics* II.8 on teeth: nature has granted to animals teeth suited for mastication; such a fact, furthermore, demonstrates that nature acts purposefully. Thus, the teeth that nature causes in animals are purposeful, i.e., they exist for chewing food (and ultimately for the survival of the teeth-possessing organism).\(^{102}\) Jonas, then, harkens back to Aristotle’s point that nature acts for the sake of ends and generates purposeful organic parts such as teeth.

Yet we could not as easily relate Jonas’s analysis to Kant or to contemporary thinkers. Granted, both Kant and contemporary thinkers examine part-teleology and use examples similar to Jonas’s own.\(^{103}\) Like Kant, Jonas does talk about mind’s connection to nature as fundamental to an understanding of part-teleology. However, there are some important differences. Unlike Kant, Jonas does not think that nature is structured phenomenally according to the mind and that the teleology of organic parts follows from nature being structured thusly. Rather, mind is really present in nature, and so Jonas has a realist, not idealist, presentation of part-teleology. In addition, Jonas, like contemporary thinkers, believes that parts can arise through evolution, and does not accept, as did Aristotle, the idea of the eternality of species. Nonetheless, he does not accept the idea that evolution, in a non-minded, random, and mechanistic fashion, could account

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\(^{101}\) As Jonas says, the digestive system is a “gift of nature” that possesses a purposeful function. (Ibid., 56) In fact, Jonas in several other places in this same work, discusses how nature has granted to organisms certain end-directed parts. For example, he talks about how legs “are given by nature,” and “legs fulfill their purpose in walking.” Ibid., 57.

\(^{102}\) Aristotle, *Physics*, II. 8, 198b.

\(^{103}\) See, for example, Chapter Two, page 50 for a discussion on the heart organ as demonstrative of part-teleology in contemporary thought.
for the genesis and development of life, including organic parts. Thus, Jonas’s teleology of organic parts links more closely to Aristotle rather than Kant or contemporary thinkers.

*The Teleology of Organic Activities in General*

Nevertheless, Jonas does not merely discuss the teleology of organic parts; he likewise examines the teleology of organic activities. Hence, we will analyze Jonas’s thoughts concerning teleological organic activity.

Jonas’s stock example is walking, which he posits as an inherently teleological: “one walks in order to arrive somewhere.” Of course, this statement is most readily applicable to the case of humans. In fact, there are numerous “in order to’s” that the human subject aims to achieve in his walking. I walk to the grocery store in order to purchase food; I purchase food in order to cook it; I cook it in order to consume it; I consume it in order to be nourished, etc. Moreover, I can be aware of each step of this process. When I start walking, I have in mind not only the store to which I am going but also the food I will purchase and how I will cook it. Likewise, I can “will” each stage of this end-directed process; I subjectively decide to go to the store in the first place. Thus, “it is . . . clear that the action-texture here considered is really purposive in the subjective sense, that is governed by preconceived goals . . . and that here the ‘for the sake of which’ . . . indeed tells us what the train of events is about.” In short, human walking is paradigmatic of organic teleological activity.

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104 *The Imperative of Responsibility*, 51.
105 Ibid., 58: “that one walks ‘in order to’ get somewhere is surely convincing where the subject is human.”
106 Ibid: “each . . . ‘in order to’ leads to another.”
107 This sequence of means and goals is what we were previously discussing in the distinction between immediate and ultimate goals.
108 *The Imperative of Responsibility*, 58.
109 Ibid., 59.
Nonetheless, Jonas recognizes that transferring this sort of purposefulness to the activities of non-human organisms is not immediate. After all, (A) the “minded,” subject status of non-human organisms, which status is ingredient to the purposefulness of human walking, is disputable (i.e., it is controversial to claim that organisms are minded), and (B) there are non-teleological explanations able to account for the activities of such organisms. Jonas needs to address (A) and (B) to demonstrate that the activities of non-human organisms are adequately close to the paradigmatic human case to qualify as purposeful.

Now we have already seen that Jonas criticizes contention (A). Indeed, we just examined his views on the holistic, “minded” organism-subject that exists above and governs its component parts. In short, in his defense of the teleology of organic activities Jonas, as he did in his discussion on the teleology of organic parts, centers his ideas on the context of the whole, “minded” organic subject. The organism, human or otherwise, is holistically structured with some “minded” capacity that helps direct its own life and activity. The extension of “minded” subjectivity throughout the organic community coincides with the possible range of purposeful behavior. Since we have already discussed at length these concepts, we will consider them adequately established and move on to Jonas’s response to contention (B).

To account for non-human organic activity, there can be the following perspective: a “necessitarian chain of stimulus and response, which in all of its steps is determined by objective causality alone.” Viewed thus, when an organism moves towards a food source, what is really occurring is that the intake of external sense data sets off a chain reaction that leads ultimately to the parts of the organism being moved in a direction towards that food. This would be a reductionistic and mechanistic model of explaining organic activity. The organism as such is not

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110 Ibid.
111 Ibid.
the agent; rather its parts are duly affected and in turn duly affect other parts, in such a way that
tends toward activities such as stalking prey or fleeing predators. A metaphor may illuminate this point. Suppose a machine composed of interconnected parts such as balls, inclining planes, interlocking gears, shafts, and some limb-like extensions. Further suppose that a ball is pushed by the force of the wind down the inclined plan, hits and activates the gears, which then turn the shaft, which then causes the extensions to move in a certain way and direction. A causal link here began with some sufficient, pushing force. However, neither in the origin of this causal link nor in its later stages do we see any goal-directedness. Each link in the chain is merely pushed in a certain direction that affects another link, but not for any overarching purpose or goal. This pushing metaphor also can be applied to non-physical causes. One could say that his anger forces him to lash out or his libido drives him to sexual encounters. The psychological impetuses alone, absent any purposiveness on the part of the agent, account fully for the behavior. In all of these cases, some force moves the person. Granted, unlike the machine scenario, the initial force here is internal. However, in both internal and external force scenarios, some non-teleological force pushes the relevant entities and is the real cause of the action.

Jonas, though, adopts the opposite position. For him, the antecedent casual forces are not sufficient to explain the activity of an organism, e.g., a cat stalking its prey. A stimulus-response mechanism—sense data of mouse being spotted leads to a chain reaction on the part of the cat of a motion toward the espied mouse and an attempt to consume it—cannot, alone, explain this behavior. Instead there must be some pulling force, not just pushing force, involved.

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112 The Imperative of Responsibility, 59. Jonas thinks that the mechanistic explanation is insufficient because it fails to address and account for the holistic status of a feeling feline which cares for its own survival and acts for the sake of that end. The holistically structured organism, i.e., the cat, is not merely some conglomeration of parts that have casual connections to each other. The organism, as such, is a real agent that senses and responds to stimuli. 112 Ibid.
Metaphorically speaking, there must also be something in front of the organism, not merely behind it, that leads the organism to act as it does, a “guiding and goal-setting force” as it were.\textsuperscript{113} The food source, as such, stands as a goal in front of the organism—temporally and spatially speaking, of course, as well as metaphorically—and the organism acts for the sake of that goal. The goal exercises a pull on the organism, helping to cause it to act for the sake of that goal.

Now, the pull is not such as to overwhelm the organism and totally determine its actions. If that were the case, we would be back to a mechanistic model in which forces compel actions, and holistic entities, as such, do not exercise causal agency. Granted, there is a causal force here, since the final cause does influence the behavior of the organism towards it. However, given Jonas’s aforesaid insistence on the subject-status of the organism as agent, then the goal, even if a particularly attractive food-source, cannot \textit{totally} cause the organism’s activity. The goal exercises some pull on the organism, which responds, in its subject-agency, to this pull. The organism, qua subject, responds, whereas the objects moved by antecedent forces react.\textsuperscript{114} The organism seeks out and tries to achieve the goal, rather than being fully pushed or forced by other factors.

A further point of clarification is required here. Jonas talks briefly about the idea of “setting” goals.\textsuperscript{115} Individual organisms themselves do not set basic goals, e.g. nutrition. Rather, such goals are set by nature for the organism from the start of its life.\textsuperscript{116} By nature, the organism must pursue such goals. However, humans, although bound to pursue basic goals, can, because

\textsuperscript{113} Ibid.
\textsuperscript{114} Hence, for instance, reactions pertain to Newton’s Third Law concerning massed bodies as such, whereas responses pertain to living beings as such and their various activities.
\textsuperscript{115} \textit{The Imperative of Responsibility}, 81, n. 2.
\textsuperscript{116} Ibid, 83-84.
of our greater freedom and mental capacity, set before ourselves new sorts of goals. E.g., I can think about my future and posit the goal of living in a new city in five years. My awareness, capable of contemplating the future, permits me to set a specific goal for myself, rather than merely having my goals determined for me by nature. Nonetheless, non-human organisms are still the agents who pursue goals, even though they did not originally set them in general. The organism is determined, by nature, to pursue general, basic needs, but it does exercise agency in its specific response to such goals. Thus, the rabbit appearing before the coyote: the coyote itself is the one who pursues the rabbit as the proximate goal of its actions, in order to achieve the more general goal of nutrition, which goal is set for the coyote by its nature. In short, non-human organisms, though given by nature certain ends, still in and of themselves exercise purposefulness in their particular action toward, and realization of, such ends.

In any event, we can now articulate more fully Jonas’s views on the purposeful activity of non-human organisms. Jonas talks about how the activity of birds collecting sticks is obviously done for the sake of providing shelter, and the bird’s collecting of worms is likewise done for the sake of providing nutrition. The non-human organism as such acts for the sake of certain goals, similar to how, as we saw, a human organism walks in order to achieve certain goals. Granted, human walking is more complex; there are more goals in mind for the human and the human is cognizant of the various steps required to achieve the final goal (points we discussed above). The bird’s action is not nearly as complex, and the bird does not cognize the various steps of its activity beyond the immediate ones. However, the bird’s collecting twigs is of the

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117 See Ibid, 84, n. 4.
118 In Part Four of this Chapter, we will discuss more on this issue of the novel, human faculty of goal-setting as well as its limitations.
119 The Imperative of Responsibility, 59.
120 Ibid.
same type of activity as the case of human walking, since, it, too, is activity done by an organism for the sake of realizing a certain goal. The bird’s gathering twigs that will be useful for a nest is similar to my walking to the hardware store to buy tools useful for home-construction. Such a common sense view is ultimately correct, so long as we avoid the mechanistic reductionism discussed above and keep in mind the issues of goal-setting and the general/specific difference in animal purposiveness, also discussed above. Just as it is obvious that I walk for the sake of a goal, so, too, is it obvious that organisms—as such, in way not reducible to the efficient causality of pushing forces—act for the sake of intrinsic goals.

Finally, there is still an issue pertaining to organic parts that we need to discuss further. After all, organic parts themselves perform their own particular work. Such activity is evidently goal-directed. Hence, it appears that the part, not the organism, is really the one performing the teleological activity here. Such may be a ready critique of Jonas’s holistic-centered views on organic teleology. Jonas, however, denies the first premise about parts acting as such. For him, it is not the case that the legs walk, but rather one walks with his legs. Likewise, it is not the eyes that see but one who sees with his eyes. The legs and eyes are like instruments of the subject-agent who employs them. Thus, I myself employ my various organs when I walk, swim, bike, eat, run, etc. Even stationary activities, like seeing, are rooted finally in the subject-agent organism and not in the part.

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121 *The Imperative of Responsibility*, 57. NB. This is not to contradict our previous contention that organic parts differ from tools in important ways. After all, we saw the two relevant contexts of minded purposefulness in which such parts function inherently, contexts not found for the non-inherently functioning tool used by agents totally external to it. So to say that an organic part is tool-like, here, is really to say that it tied to the larger, formal, and systematic operation of the whole. Thus, though it has more inherent functionality than a hammer, an eye still does not fully operate per se. And, more importantly, an eye’s function of receiving light is not the same as seeing, since seeing involves recognition of X by some Y, not some eye, as will be shown presently.
We see here a point discussed before: organic parts and their functions are subordinate to and governed by the whole organism. Granted, the various functions of the eye—such as the work of the retina of transforming light rays into impulse signals for the brain—can be seen as actions performed by the eye alone. Parts, hence, are the ones doing organic action, e.g., converting sense data into impulses. Nonetheless, given Jonas’s holistic approach to organisms, the particular actions of organic parts are not done independently but are involved, ultimately, in the life and activity of the whole organism. The light rays received by the eye are then transferred to another part of the organism, the brain, and then this information is processed and understood. An integrated structure of the whole organism informs the entire process of seeing; the eye alone is not sufficient for doing so. The organism is the one who sees, not the eye. This can also be explained when we consider that the organism is the one who responds to what is seen and acts accordingly. The organism moves towards food, moves around obstacles, moves away from predators, and in short behaves in a certain way toward various objects pursuant to what it has seen. The organism is the seeking and mobile agent in this case.

In sum, the organism’s holistic activity is teleologically oriented towards certain goals, such as seen food sources. A cat sees a mouse; its action of seeing is directed toward the mouse. Likewise, pursuant to this seeing, the cat may itself move towards the mouse in order to capture it. These two cases—as well as numerous others besides—demonstrate the holistic activity of organisms as directed towards certain goals.

*The Teleology of Basic Organic Activities and Growth*

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122 See our discussion on pages 183-189 of this chapter about the context of organic wholeness as governing the operation of parts.
Nevertheless, what does Jonas say about the issue of basic organic activities, such as growth? Does he see foundational, vegetative processes, e.g., the intake and chemical breakdown of food, as being teleological?

Let us start with a consideration of fundamental life functions, such as nutritive activities. We addressed before the issue of the digestive system as a teleological part; now we will see if the digestive process is similarly teleological for Jonas. The immediate answer is, of course, yes. After all, if the digestive system is purposeful, it is purposeful because it acts for the sake of certain ends, both immediate and ultimate. Even in a plant, we noted the presence of tissue that served to transport food and water requisite for the survival of the whole. The transporting of food and water—an activity done constantly through the use of such parts—is thus directed towards the plant’s survival. The plant, qua “minded,” is a subject-like, en-formed, and holistic agent that dynamically organizes itself so that fundamental processes, such as the intake and transporting of food and water, are consequently directed towards its own survival. In short, Jonas allows for the vegetative actions of organisms to be purposeful. They are not, for him, chaotic nor are they random, since they are tied inherently to purposeful parts belonging to purposeful organisms.

For such actions to be random or chaotic would mean that a generally purposeful entity, whose parts are directed purposefully towards its survival, somehow acts in a non-purposeful manner, disregarding the primary orientation of its being (i.e., the end of its own existence) and likewise not employing properly the purposeful tools (organic parts) through which its actions are performed. It would be akin to the following scenario. Imagine a machine whose parts are designed for the sake of its well-functioning operation, and which in itself (insofar as it is a

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123 See *The Imperative of Responsibility*, 75.
“self”) acts ultimately for the sake of its owner, according to the intention of that owner. Now further suppose that the machine generally performs chaotic or random actions (leaving aside the question of malfunctioning parts for the moment and supposing it to be operating normally). It seems impossible for such a machine to act typically in a non-purposeful manner, given its inherent purposefulness. Likewise, does it seem impossible for the inherently purposeful organism to act non-purposefully, even in its basic life-functions.

Now we move to discuss the possible purposefulness of organic growth. First, we recall that Jonas thinks contemporary theories of organic genesis follow a comprehensively mechanistic framework. That is, the organism just grows according to a pre-programmed set of antecedent causes. To understand Jonas’s concepts more clearly, we can distinguish them from his contemporary, Ernst Mayr. (Though Jonas is not explicitly responding here to Mayr, Mayr’s thought provides a helpful foil for Jonas’s.) For Mayr, the DNA of an organism is a program-like feature (i.e., carrier of information) that fully directs the development of the organism. The organism tended towards a fulfillment of the program’s model. Viewed in this way, there seems to be something Aristotelian about Mayr’s ideas, a point he himself is keen to make.\(^\text{124}\) If so, would not Mayr’s ideas be similar to Jonas’s in this regard, given the Darwinian and DNA world that Jonas addresses, as well as his Aristotelianism? Jonas, however, avoids, as we have seen, any use of cybernetic language in depicting organisms and their teleology. He also does not wish to reduce the casual agency of the organism to the operation of DNA. Indeed, he thinks that the formal, holistic structure of the organism operates beyond DNA in organizing and directing the organism.\(^\text{125}\) In turn, he posits that such a model presents organic growth as being merely the


\(^{125}\) See *The Phenomenon of Life*, 97-98. Jonas does accept that DNA informs the growth of organisms; he just denies the proposition that DNA is the *sole* cause of such growth, which, for him, would reduce away the organism as such. Leon Kass likewise picks up and expands this idea of the en-formed organism existing and operating over and above
consequence of antecedent, efficient causes. To use the metaphorical language employed earlier: the activity would be pushed by the basic proteins and patterned information of DNA. Consequently, the proteins and pattern, as well as the subsequent cellular, molecular, etc. growth, are all engaged in activity that can be fully accounted for by some antecedent cause that necessitates a consequent effect. In which case, we would be back to the situation of individual objects “pushing” one another and thus rendering some sort of chain reaction. These type of chain reactions, following requisitely one upon the other, does not accord with Jonas’s sense of organic subjects who are holistically en-formed and operate in a holistic manner. It likewise undermines the possibility of organic agency as such, in which organisms pursue, on their own, certain goals, rather than being merely the epi-phenomena of the activities of their components. Finally, Jonas, as we saw in Chapter One, sees freedom as integral to organic existence, which means that the necessitarian perspective, even of organic growth, cannot fit into his thought. In short, then, Jonas cannot accept the DNA program model, with the coded DNA as the sole source of organic growth.

As to what Jonas does accept and posit about organic growth and teleology, he provides no ready answer; no section of his work directly addresses this topic. However, I think we can say some words on what his views might be. Obviously, Jonas would not say that an organism intentionally and consciously causes its own growth for the sake of some goal of full organic existence. But some sense of “mindedness” would likely be at play here. One way, perhaps, to talk more coherently about this point is to bring Aristotle into further dialogue with Jonas (while avoiding the reduction of form to DNA that Mayr posits). For Aristotle, the organism grows


126 The Imperative of Responsibility, 66.
127 See Chapter One, pages 47-52.
according to its form, the fulfillment of which stands as the proper end of the form. The form directs and completes the process of organic growth. To see form as “minded” might be a tool available to Jonas to discuss how organisms grow from embryonic stages to mature adults without exercising intentional, human-like, fully conscious causality.\textsuperscript{128} Yes, growth is basic and not readily akin to the intentional, more subjective, goal directed actions of organisms, such as sensation for animals. Nonetheless, insofar as Jonas thinks that trees can purposefully employ leaves for the sake of collecting water and animals can purposefully employ a digestive tract—both of which activities are very far removed from our ordinary sense of purposiveness—then it would follow that he may allow room for some analogous purposiveness to obtain in the original growth processes of an individual organism. After all, Jonas does allow for the development of Life in general to be “mindedly” purposeful, and he does see individual organisms as following from and connecting back to this “minded” purposiveness.\textsuperscript{129} If so, then individual organic growth could likewise be “mindedly” purposeful. The embryo develops into the fetus and the various branches grow from the tree trunk: both do so for the sake of a healthy, organism, and do so according to respective “minded” structure of their holistic, formal existences. As stated above, once we adopt the concept of an Aristotelian form, we have some way of talking about how this basic, non-intentional activity of growth can be purposeful in some way for Jonas. 

Of course, this presentation is mainly speculative and not indented as the final world on Jonas’s thoughts concerning the teleology of organic growth. If such speculations are indeed accurate to Jonas’s philosophy, then they likewise indicate the fact that such a philosophy faces

\textsuperscript{128} The reason we add the qualifier, “as minded,” is that Jonas, as we have seen throughout this chapter, insists on the presence and operation of “mind” in all organic teleology. This could be akin to how Aristotle himself believed in some intelligent structure that informed the development of the organism in a formally patterned, rather than chaotic or discombobulated, fashion.

\textsuperscript{129} See our discussion on pages 183 through 189 of this chapter.
significant criticisms, such as, what sense does it make to talk about “minded” forms that govern organic growth? In Chapter Six, we will attempt to defend Jonas’s ideas on the “minded” teleology of organisms. Such a defense, however, may not fully address these sorts of criticisms. Nonetheless, given the scope of this dissertation, a more fleshed out presentation and defense of Jonas’s thought on these points must be left in abeyance.

Summary and Transition

Jonas posits a wide-ranging sense of teleology for organic parts and activities. Even on a basic, nutritive level, living things and their components have a teleological structure: they exist and operate for the sake of final causes, immediate and ultimate. Jonas’s philosophy is clearly akin to Aristotle’s thought and is likewise rather different from the thought of his contemporaries. Insofar as digestion and the digestive system are purposeful for Jonas, then we grasp how he offers a robust view of the “minded” purposiveness of organic existence.

Part III: The Holistic Teleology of Organisms

We have just analyzed Jonas’s thought on the robust teleology of organic actions and parts. Nevertheless, there are teleological issues pertinent to the whole organism, considered as such, over and above the discrete part and activity focus of the preceding discussions. In this part of Chapter Three, we will address such issues. Our first task is to examine how a telos serves to structure the holistic existence of the organism.

Teleology and the Structure of the Whole Organism
What does it mean to say that an organism for Jonas is structured by its *telos*? To begin, we look at the issue of structural integrity. A bridge, so as to remain sound and functional, must possess a structural integrity. A sufficient number of bridge-parts must obtain in good working order and connect properly for the whole bridge to hold together. Absent even a small number of such parts and connections and the integrity of the whole is harmed. Likewise, the addition of strong parts—e.g., the beams framing the supports for the center of the bridge, especially in proper relation to adjacent parts—serves to strengthen the integrity of the whole. For the bridge to function as such, i.e., as a safe, stable pathway over a body of water, there must be an adequate integrity of the whole. The bridge works insofar as it is structurally sound.

Keeping in mind this concept of structural integrity, we can proceed to look at teleology and organic structure. The important structure to examine is the basic identity of the organism as such: the organism as a unified whole, a systematic coordination of its various functions. Another way to discuss organic identity is to say that it opposes a reductionism in which all, true organic activity and metaphysical status lies within the parts of the organism. When there is genuine organic identity, the whole organism, over and above its parts and their actions, has a genuine ontological status: the organism, as such, is a real being. For Jonas, such a holistic structure entails a *telos* connected to the whole. “At all events, the teleological structure and behavior of the organism is not just an alternative choice of description; [rather,] there is no organism without teleology.”

We need to focus on this idea that the teleological presentation of organisms is not merely an “alternative choice of description.” That is, grasping the systematic, united function of the organism is not possible unless there is some overarching *telos* towards which such functioning tends and aims. Otherwise, it is not systematic but just the mere

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130 Phenomenon of Life, 91
“incidental result” of different, individual functions. Hence, the telos serves to hold the organism together, so that it maintains its “structural integrity.” With the presence of a telos, we have a full, unified organism, just as in the presence of certain, key parts and their connections we have a full, working bridge. Any theory on living things must bear in mind that the organism is intelligible only in light of its telos.

One could be tempted to say of Jonas here that the telos could be a heuristic that may or may not actually obtain in the organism itself. That is, there could be a theory that posits that the organism as such only appears to be teleological. For such a theory, we could suppose the organism as having a holistic telos, yet in truth, there may be no inherent, overarching purpose present to orient and order its causality. This would be akin to Kant, for whom the organism was necessarily teleological but for whom, as well, the organism was such only in our experience, which experience structured the organism as being teleological. However, Jonas’s position does not accept this heuristic approach and embraces a more Aristotelian sense of teleology. Hence, for him, the telos in the whole organism is not merely a posited telos or one obtaining only in to our experience. Rather, it is a truly present and operative telos, one that actually serves to hold the dynamic structure of the organism together in its various functions.

To understand better this idea, we turn to the following quotation from Joe Sachs: “living beings do not have purposes, they are purposes.” Granted, as we discussed earlier, Jonas explicitly says that organisms have purposes, especially as being distinct from machines that carry out purposes. Why would Sachs be germane for Jonas? Jonas’s interpretation of the basic dynamism of the organism means that for him, the organism is always active. That is, the

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131 Ibid., 78.
133 Joe Sachs, Aristotle’s on the Soul and Memory and Recollection, (Santa Fe, NM: Green Lion Press, 2001), 28.
organism’s purposeful behavior is foundationally constitutive of what the organism is, since, after all, the being of the organism is its own doing. The organism is not some static entity that may or may not engage in goal-directed activity and may or may not realize such goals. In order to be at all, the organism must continuously both pursue and achieve a wide variety of goals (as we have been discussing throughout this chapter). Purposeful behavior, therefore, must obtain in the organism’s basic ontology. “Teleology comes in where the continuous identity of the being is not assured by mere inertial persistence of a substance, but is continually executed by something done, and something which has to be done in order to stay on at all . . . Organic individuality is achieved [in this way] . . . and is thus teleological.”\textsuperscript{134} However, it is the not the case that organism is a hodgepodge of various purposes pursued and achieved independently. Rather, such purposes are themselves united in all being directed towards the ultimate purpose of the life of the organism. In fact, purposes contrary to that final end are, in this way, dysfunctional, as they harm the functioning of the whole.\textsuperscript{135} Thus, to say that the organism is a purpose is to say that the organism holds together well in an integrated fashion because its ontologically fundamental activity is oriented towards itself and its own life.

Viewed from the “structural integrity” angle, we see the following. To start, we recall the distinction discussed in Part Two concerning immediate and ultimate goals. For example, the stalking of prey has its own, immediate end (obtaining food), and the processing of food has likewise its own, immediate end (the turning of food into nourishment). In fact, the former end (obtaining food) is directed towards the latter end (turning food into nourishment). However, nourishment is not the ultimate end for the animal, since nourishment itself is done for the sake

\textsuperscript{134} Philosophical Essays, 198-199.
\textsuperscript{135} Jonas, in fact, states that what is good for the organism here is that which benefits it in its realization of this final goal. The Imperative of Responsibility, 54.
of the life of the animal itself. Staying alive in their full specificity thus stands as the ultimate end of the activities done by the animal.\textsuperscript{136} The various, immediate goals achieved by the animal (e.g., obtained food-source, nourishment, etc.) are subordinate to this final end. The subordinate ends must possess a further orientation beyond themselves in order for their corresponding activities to function properly. Such immediate, subordinate goals stand, therefore, both as ends and as a means to a further end, whereas the life of the organism stands only as an end. The various activities and ends tie together, like the parts of a bridge, in that they all are oriented towards and finally culminate in an ultimate end (the life of organism in this case, the safe, functioning, pathway over water in the case of the bridge). “Every organ in an organism serves a purpose and fulfills it by its functioning. The overarching purpose jointly served by all the special functions is the life of the organism as a whole.”\textsuperscript{137} The ultimate telos serves as the necessary capstone by which the organism exists as a dynamic whole rather than being a discombobulated jumble of parts and behaviors or a merely fortuitous synchronization of disparate functions. Jonas says that such a situation, of non-holistic, unintegrated organisms, where there is “teleological indifference,” would amount to a “flow of momentary constituent parts . . . and thus the continuity of the whole is an abstraction.”\textsuperscript{138} Instead, the organism is unified because the organism functions always, even on the level of its parts and basic activities, for the sake of itself and its life.\textsuperscript{139}

\textsuperscript{136} Almost everything an animal does is oriented toward its own survival; however, sometimes an animal can act against its own survival for the sake of protecting its offspring. Nonetheless, in terms of the intrinsic teleology of the organism, rather than ends extrinsic to the organism itself, such as its offspring, then survival is the end sought. 
\textsuperscript{137} The Imperative of Responsibility, 65.
\textsuperscript{138} The Phenomenon of Life, 78.
\textsuperscript{139} We will see in the following section that more properly speaking it is a full, flourishing life that stands as the ultimate organic end.
Before closing this section, we should relate our conversation back to Jonas’s teacher, Martin Heidegger. Heidegger’s Dasein can realize its own “structural integrity,” i.e., grasping itself as a whole, so long as it chooses its existence in a consistently resolute fashion. Dasein’s foresight of death is the key that fosters this authentic resolve. When Dasein faces up to its own mortality, instead of having its death “dispersed among the they,” then it is able to re-evaluate and re-structure its life and possibilities in light of its finitude. Confronting the ever-present possibility of death allows Dasein to solidify holistically its individual existence. Dasein’s past, present, and future become meaningfully integrated pursuant to this resolute owning-up to its mortality.

Jonas, as usual, presents a unique interpretation of Heidegger in this regard. That is, Jonas sees the organism as having a temporal, Dasein-like existence. Hence, for instance, the organism strives to stay alive not merely now but also into the future. Just like Dasein, the future is a key aspect of the organism’s existence. Our question, then, is what allows for an organic structural whole throughout its past, present, and future? As we have seen, the organism, for Jonas, is constitutively purposeful: in everything that it is and does, the organism is oriented towards its continued survival. But such constitutive purposefulness cannot be seen as momentary or even sporadic, since the organism is also, like Dasein, structured according to its temporal existence. Hence, that temporal structure holds together insofar as throughout the entire course of its history, there is, for the organism, a continuity of purposeful activity and function.

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140 Here, I am extending Jonas’s own thought by a comparison with Heidegger in order to illuminate an implicit set of concepts contained within Jonas’s thought.
142 See our discussion in Chapter One, Part I, on Dasein, authenticity, and death.
143 *The Phenomenon of Life*, 85-86.
144 Ibid., 85: “The self-concern [of the organism], accentuated by want, throws open as well a horizon of time . . . the future into which organic continuity is each moment about to extend.”
145 Ibid., 86: “the anticipation of imminent future . . . is more fundamental than the retention of past in memory.”
“The goal organisms continually move toward is their own existential persistence.”\textsuperscript{146} The end-state of survival is the proverbial capstone for the temporal integrity of the dynamic existence of the organism.

\textit{Fulfillment, Entelecheia, and Organic Teleology}

Thus, the living organism is the end of organic parts and behaviors. Yet does Jonas think that it is mere life that is the ultimate end of organisms? Or rather does he think that some state of flourishing is the ultimate end of organic teleology? At first blush, Jonas seems not to embrace the idea that the \textit{telos} of living thing is its completion, fulfillment, or perfection. First, his main discussion on teleology concerns how organisms strive to stay alive. The life of X, as such, seems to be the \textit{telos} of X, without any reference to fulfillment or perfection. Second, Jonas also critiques “the classical” position concerning \textit{telos} as completion.\textsuperscript{147} He asks whether “there can be a completion and perfection of a living being?”\textsuperscript{148} For Jonas, the answer is no, because such a completion “would mean cessation of want, therefore of the [living] being itself, which is the dynamics of want and satisfaction.”\textsuperscript{149} Given Jonas’s continuous insistence on the dynamic nature and structure of organisms, it makes sense for him to rebut the idea of organic \textit{telos} as a state of completion, in that this is seemingly a state of rest and as such would result in organic destruction, not flourishing.

However, a deeper analysis of Jonas’s thought actually reveals his sympathy for the idea of \textit{telos} as completion, provided that we understand organic completion in a proper way. To start, we turn to Jonas in his essay on “What does Good Mean in ‘Good Physician?’” Here, he

\textsuperscript{146} See Theresa Morris, \textit{Hans Jonas’s Ethic of Responsibility}, 71.
\textsuperscript{147} \textit{Philosophical Essays}, 199.
\textsuperscript{148} Ibid.
\textsuperscript{149} Ibid.
indicates that the good of something occurs when it is in good working order. “This living body—snake, bug, or bear—is complete in its proper parts, all in good working shape, each doing its proper work in proportion to the others and to the whole. It is then a ‘good’ specimen of its species.”150 By the criteria of “wholeness and excellence,” this specimen, qua working well, is also then a fulfilled member of its species, completing the functions particular to its kind.151 What we see is that for Jonas, the completion of an organism is not a state of rest but rather a state of continuous (and kind-specific) activity. The most fulfilled bear is that bear which performs its bear-like functions well. The organic being in its specific doing is what is fulfilled.

A state of completion for Jonas, then, refers to a dynamic state of proper functionality. According to Theresa Morris, this point hearkens back to the Aristotelian concept of entelecheia. As Morris understands it in relation to Jonas, entelecheia denotes the ultimate telos of living things. From the perspective of the whole organism, all parts and actions are oriented ultimately towards the perfectly formed, species-particular, full actuality of the organism, towards its entelecheia in other words.152 As translated by Joe Sachs, the term refers to “being-at-work-staying-itself,” a term Jonas would find deep resonance with.153 For Jonas, being is dynamic: to be is to be at work, most fundamentally the work of metabolism. Moreover, we have also seen Jonas’s insistence on the continuous identity of the organism over time, even on the level of amoebae. The whole organism, as such, maintains itself through its metabolic work, as well as other types of work. And staying alive, according to Jonas, is performed best when done in a perfected manner proper to the species of that organism (as we saw above in the example of

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151 Ibid.
152 See Theresa Morris, Hans Jonas’s Ethic of Responsibility, 73.
153 Joe Sachs, Aristotle’s Metaphysics, (Santa Fe, NM: Green Lion Press, 1999), li.
“good” organic functioning). Consequently, if entelecheia is the fullest sense of an ultimate organic telos, and entelecheia is a dynamic state of species-particular activity, then Jonas would likely embrace this Aristotelian sense of teleology and the idea of an active state of full functionality (or flourishing in other words) as the final end of organic goal-directedness.

**Species Particular Flourishing as the Ultimate End of Organic Teleology**

Nevertheless, we need to discuss more about species-particularity and flourishing in Jonas’s thought in order to understand better his position on fullness as the organic telos. For this discussion, we focus on two different sets of ideas of Jonas’s. In the first set, Jonas talks about animal existence and how it is more multifaceted and complex than mere plant existence but also more precarious. The ascending scale of organic qualities found in animals—greater freedom, as well as awareness, locomotion, and feeling—bring with them corresponding hazards, unknown on the plant level of life, e.g., injury to a limb that prevents locomotion and thus may end in the death of an animal. It’s riskier to be an animal than a plant. Nonetheless, Jonas thinks that such precariousness is a price which life is willing to pay. In other words, life, on any level, is not the “mere assurance of permanence.”

The key point here is that living things strive to survive as members of their species, not just stay alive in general, despite the precariousness and problems that attend that status. Therefore, when looking at animal life, Jonas says the following: “perception and emotion are never to be judged as means merely, but also as qualities of life to be preserved.” A rabbit attempts to stay alive as a rabbit with its sensitive, mobile, and emotive faculties functioning

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154 *The Phenomenon of Life*, 106.
155 Ibid.
156 Ibid.
well. “The feeling animal strives to preserve itself as a feeling, not just metabolizing, entity: i.e., it strives to continue its very activity of feeling.”\textsuperscript{157} The rabbit’s qualities of life, beyond mere survival, are essential to the ultimate end of its activities. The rabbit’s \textit{entelecheia} is to be a full, flourishing member of its kind, one whose “minded” capacities—the sensible powers of its soul as Aristotle would say—are working optimally. Such is the goal towards which the rabbit and its activities are oriented.

It is worth noting that Jonas repeats twice more this contention about organisms striving for a specific quality of life rather than mere survival. In his essay on “The Burden and Blessing of Mortality,” Jonas discusses this quality of life issue as it pertains to humans. He talks about how not merely emotions but “faculties of the psychological order,” such as “understanding and will,” are “aspects of the end” of the relevant organism, i.e. man.\textsuperscript{158} Humans, like animals, exhibit an inherent goal-directedness towards states of species-particular flourishing. Likewise, in his essay on “Evolution and Freedom,” Jonas contends that “feeling, perception, and motility are faculties accompanying the phenomenon of self-preservation they serve.”\textsuperscript{159} That is, these specific qualities not only help the animal achieve its own individual end; possessing and fully employing such qualities are constitutive of that very end.

We can expand on this point, I think, by likewise considering a second set of ideas from Jonas. Here, we focus on pets in particular. In \textit{The Imperative of Responsibility}, Jonas posits that there is a residual Cartesianism that sees animals as non-subjects, i.e., mere objects. Hence, someone might suggest that animals do not exhibit any individual subject. Jonas, however, thinks

\textsuperscript{157} Ibid.
\textsuperscript{158} \textit{Mortality and Morality}, 93.
\textsuperscript{159} Ibid., 73-74.
that any pet-owner will merely “laugh” at that suggestion.\textsuperscript{160} In other words, Jonas is saying that Fido has his own personality and that it differs from Rover’s, Charlie’s etc.

How, though, does this understanding of the subjective personality of pets pertain to organic flourishing? We just saw Jonas’s concept that organisms, especially animals, strive to maintain their quality of life. Their ultimate \textit{telos} is their state of life in which they possess and exercise their emotive capabilities, among other similar qualities. This point about animal emotions segues readily into the aforesaid statement on the subjective personality of pets. It would be apt to say that my dog, Sassy, in her subjective personality, \textit{wants} me to walk her around the neighborhood. In fact, she often runs to the front door in lieu of her food bowl. She only goes to eat the food after I command her to come back from the front door. Clearly, her behavior is not merely oriented toward nourishment. In running to the door and excitedly jumping up and down, Sassy acts for the sake of something other than food, e.g., the pleasure of walking or the delight of using her olfactory capacities in exploring the neighborhood. Her basic needs can be met though the eating of the available food, and yet she still strives for something more. Indeed, she manifests much more energy and attention in regard to being walked than she does towards being fed. Put in Jonas’s terms: her subjective personality is such that she wants to continue to not only be alive but also \textit{enjoy} life by walking. The \textit{telos} of her actions, in other words, is not mere survival but survival in an emotionally fulfilling way. Her personality manifests a decided interest in walking and it is that interest, sometimes beyond mere nutrition, that she seeks to satisfy. She aims at a state of flourishing in which she possesses and fully employs her kind-particular qualities.

\textsuperscript{160} \textit{The Imperative of Responsibility}, 62
Would this idea, for Jonas, apply also to lower animals than do not seem to possess all the affective and sensitive features of dogs? I think that the answer is yes, insofar as there are some features in such organisms, e.g., motility or web-weaving in a spider, that could be considered part of their kind-particular entelecheias. A spider might be directed toward the full use of its legs (i.e., have some “desire” for that full-fledged capacity or having a systematic process of healing those legs when injured), although it is currently alive with sufficient nutrition.

So lower animals have species particular entelecheias toward which they aim; what about plants? Granted, Jonas’s position on plants is complicated. It is difficult to present a totally consistent theme from Jonas about plants and their teleology. Granted, as well, is that plants do not manifest higher qualities beyond the basic nutritional ones. In other words, should we not think that a plant’s survival may just be its engagement with its specific qualities and that there does not seem to be an additional state of flourishing, above mere survival, to which the plant could be oriented?

I think, however, that Jonas might allow for a limited sense of plant entelecheia. After all, plants possess an amazing ability for self-repair and healing. A plant when injured, may perform activities that allow it to return to a fuller functionality.\(^{161}\) The injured plant may still be alive (albeit in a weakened state), and yet something in the plant is active for the sake of an additional goal. The fully functioning plant, possessing and employing its specific capacities, may well be

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\(^{161}\) A fascinating example of this is the Pará rubber tree. When the bark of this tree is cut open, causing latex to escape from the plant, a particular protein is then produced which joins with the escaping latex in order to repair the open fissure. Amazingly, this process can occur within twenty minutes of the original damage to the bark. “Yet this process is not unique to the rubber tree. Further studies of the hardening mechanism in this plant species as well as species from the genera Euphorbia and Campanula, in which the hardening of the latex partially occurs even within a few seconds, should show commonalities and differences between the hardening mechanisms in different systematic plant groups.” A Nellesen, M. von Tapavicza, J. Bertling, A.M. Schmidt, G. Bauer, and T. Speck, “Self-healing in Plants as a Model for Self-repairing Elastomer Materials,” in Polymers from Renewable Resources, 2 (2011): 149-150.
the proper end of such plant self-repair, the ultimate goal towards which it strives. Theresa Morris’s discussion on Jonas posits this same claim: the entelecheia of “the plant is expressed in the fully formed and thriving adult plant, at its peak, capable of sustaining itself and reproducing itself.”162 Hence, insofar as Jonas allows for plants to exist and operate as such, and insofar as plants act for the sake of a healthy, full state of living with full possession and use of their specific abilities, then it would follow that for Jonas, plant teleology is directed toward some form of plant entelecheia. Such an entelecheia is nowhere nearly as robust and complex as animal (and especially human) entelecheia, yet it is still a real entelecheia for these plants.

That said, we should re-state the main ideas we have thus far examined. First, Jonas allows for entelecheia—a dynamic state of kind-particular, healthy, and full functioning—to be the proper end of organisms and their functions, rather than it being state of static existence. Second, animals and to some degree plants strive towards this entelecheia as the ultimate end of their activities. Thus, as said before, it is not duration but “‘duration of what’” which is the supreme teleological question of organisms.163

Before closing this section, we need to ask: how does Jonas compare other thinkers on this teleological issue? Evidently, he agrees with and incorporates Aristotle’s thought. In fact, Theresa Morris devotes several pages of her work to articulate this coincidence of thought.164 In comparison to Kant, I think Jonas’s discussion goes beyond Kant’s, yet I do not think it contradicts it. Kant explicitly states that the organism purposefully acts for the sake of growth and continued survival, whereas Jonas sees organisms, especially animals, as acting purposefully for the sake of continued flourishing. However, nothing in Kant’s thinking would oppose Jonas

162 Hans Jonas’s Ethic of Responsibility, 73, emphasis mine.
163 The Phenomenon of Life, 106.
164 Hans Jonas’s Ethic of Responsibility, 71-74.
on this score. Finally, however, Jonas certainly seems to differ from contemporary thinkers on this topic. Granted, thinkers such as Ernest Nagel posit that a state of health is the proper end of organic functions. Nonetheless, in terms of differentiating human from non-human teleology, survival as such is seen as the main goal for non-human organisms. Only with the human case is there a real teleological orientation towards happiness, fulfillment, or flourishing. Jonas, by opposing this idea returns to a classical sense of organic teleology.

Summary and Transition

We have seen that a teleological structure is basically constitutive for organic identity. The organism has a structural integrity capped off by its telos. Moreover, this telos is not mere survival but survival in a kind-particular, full manner. Organic parts and activities are directed ultimately towards the flourishing of the whole organism as such. Jonas returns to a classical sense of organic teleology.

Nonetheless, new questions arise as we reflect on Jonas’s position about kind-particularity. After all, different kinds of organisms possess different sorts of abilities: do these specific abilities pertain to new types of teleological activity? Addressing that and other similar questions will be our next task in part IV of this chapter.

Part IV: Issues of Animal and Human Teleology

165 Ernest Nagel, *Teleology Revisited*, 305.
166 See our discussion from Chapter Two, page 54.
On the animal and human level of organic existence, we see unique functions and behavior, e.g., feeling, mobility, complex intelligence, and robust freedom. Our current task is to see the various ends towards which these animal and human functions tend. That is: what are the new sorts of ends opened up by the unique capacities of animal and human organisms?\(^\text{167}\)

**Animal Teleology: Sensation, Emotion, and Locomotion**

Our first focus will be on animal teleology. To start, we note that Jonas twice draws the following line between animals and plants: the former differ from the latter because they can perceive the world, feel in response to the world, and move throughout the world.\(^\text{168}\) Now, we want to see the ways in which such abilities are teleological according to Jonas.

For our purposes, the important point here is that animals, on account of such unique abilities, have opened up for them a whole range of end-directed activities heretofore unknown in the organic community. Take, for example, the animal ability to sense the world. In this fashion, the animal directs itself beyond what is immediate to it and is oriented instead toward what is remote. A squirrel, for example, may see nuts that it could gather or tree it could climb. Indeed, the animal’s seeing is directed toward everything falling within its line of sight. An animal whose sight is directed only towards the physically immediate cannot, in fact, see; a squirrel whose eyes are directly touching a tree is, like a person covering his eyes with his hands, prevented from seeing. To see is to engage visually with the further reaches of one’s environment; such is its proper *telos*. And such sense-based, remote engagement is, likewise, the

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\(^{167}\) Higher is being used here as a synonym for animals and humans.  
\(^{168}\) See *The Phenomenon of Life*, chapter three, “To Move and to Feel: On the Animal Soul.” See also *Mortality and Morality* chapter two, “Evolution and Freedom.”
proper telos of other forms of sense-abilities in animals.\footnote{\textit{Engagement} is used here to indicate some form of interaction done by the animal in regard to objects in its environment. The looseness and possible ambiguity of the term is actually beneficial, in that it is difficult to define exactly the way in which animals act, through their senses, on objects removed from them.} A shark picking up and responding to the scent of blood in the water or a beaver hearing the slap from the tail of a fellow beaver warning of imminent danger are both relevant examples: the shark’s capacity to smell and the beaver’s capacity to hear are directed towards mediate, sensual engagement with the environment of the respective animal. An animal can sense in order to be informed about its surroundings, i.e., to grasp whether food (a bleeding creature in the case of the shark) or foe (a human hunter in the case of the beaver) are present therein. This sense-based, remote engagement is a new type of end for organisms, something not experienced on the sub-animal level. After all, if a plant “senses” sunlight or the presence of nutrition in the soil and responds accordingly, the “sensed” object is necessarily immediate to the plant. Thus, even when granting to plants the ability to “sense,” we see that this ability cannot aim at a remote-engagement.

But what about touch and taste? These two senses may not open up novel ends the way that seeing, hearing, and smelling do. An animal who tastes food with his mouth and senses and responds to the texture and feel of the food performs an activity not entirely different from a plant. The textual sensitivity of the touching and tasting animal is more acute, but in and of themselves, the ability to touch and taste do not seem qualitatively distinct from plant activity. Of course, when looking at how the whole animal responds to something touched or tasted—e.g. it spatially moves away from a hot object touched or spits out a rotten object tasted—we see actions distinct from plant behavior. Yet in terms of the sense-abilities opening up novel goals, the main focus for Jonas is on seeing, hearing, and smelling, since they, in and of themselves, orient towards ends unknown to plant life.
But animals do not merely sense the world; they also directly act in and on it. That is, animals move about spatially within their respective environments. Horses gallop, cats stalk, dogs bound, birds fly, fish swim, snakes crawl, squirrels jump, and in one way or another, animals exercise locomotion. Our task is to illuminate the ends towards which such locomotion is directed. The first such end is of course the finding and consuming of food. A bear lumbers through a forest in order to find berries and other edibles to consume. Squirrels move, both on the ground and in and between trees, in order to find nuts. The stationary squirrel will be the hungry (and ultimately dead) squirrel. In fact, even the presence of humans proximate to such nuts does not necessarily deter this end-directed locomotion. Moreover, this sort of activity is distinct from the osmosis-like obtaining of food performed by plants and single-celled organisms. Such plant-activity involves only a limited form of spatial motion: a tree, in exercising its phototropic activities to gain energy from sunlight, does not move its entire self into a new spatial location, but rather a part of it moves toward that light and absorbs the energy-laden sunlight while the tree stays continuously rooted in the same space. In obtaining nutrients from the soil, the tree likewise stays put and absorbs them through its roots. Photosynthetic and nutrient-collecting behavior involve no striving by the whole organism towards mediate goals. On the other hand, animals, in order to obtain energy-laden sources of nourishment, must engage in locomotive activity whose end is external to the animal itself. Hence, we see with animals that it is not merely activity directed to a food source but rather activity directed across a spatial distance towards a mediate food source. In short, we see reiterated the same pattern noted above: new types of goals, i.e., spatially distant goals, enter into the organic community concurrent with a unique animal ability, in this case locomotion.
We should note that animal locomotion is also done for the sake of avoiding danger, not only for obtaining food. Squirrels also run away from sources of danger, such as humans or larger animals. However, we should ask: what is the precise goal to be achieved through such activity? The goal here is being in a safe place; the animal seeks shelter and security removed from actual or potential threats. To be clear, this safe place is relative. First, it is relative to how readily and quickly the endangered animal can move there: an initial secure location for a climbing mountain goat might be atop a precipice; later, the secure location may on a different side of the mountain. In addition, the secure location is relative to how inaccessible and remote it is from the same predator. Nonetheless, granting these modes of relativity for the secure location, it still stands as the direct goal for the endangered and mobile animal. Moreover, since plants lack locomotion, no such secure locations, relative or otherwise, exist for them. In fact, for a plant endangered by excessive sunlight, the only location available to it is the currently harmful one. Thus, animal locomotion helps engender a new sort of organic goal: the secure remove distant from danger.

Finally, we should consider briefly how animal emotion pertains to organic teleology. To do so, we recall our prior discussion on the distinction between organic and cybernetic teleology: the former is based on need, the latter is not.\textsuperscript{170} The animal feels the need to obtain nourishment or avoid danger, which then leads to the larger emotional range to animals: they feel hungry, they fear danger, and they experience pain and pleasure, etc.\textsuperscript{171} Moreover, the animal experience of

\textsuperscript{170} See pages 15-19 of this chapter.
\textsuperscript{171} See \textit{The Phenomenon of Life}, 126: “This basic self-concern of life, in which necessity and will are bound together, manifests itself on the level of animality as appetite, fear, and all the rest of the emotions . . . the passion of the chase, the fury of combat, the anguish of flight, the lure of love.” Jonas, in order to be clearer, should have specified that animal organisms, such as bugs, may not fit readily into this analysis, though, as discussed earlier in this chapter, there is, perhaps, some good reason to assign something like affectivity to such animals. Be that as it may, Jonas still needed to provide further refinement and discussion to this point.
emotions leads to the animal exercise of locomotion. For example, the lion that pursues the zebra does so because it is hungry and wants to alleviate that hunger. It is not merely sensation, then, but rather sensation plus emotion that accounts for animal locomotion towards a mediate goal, e.g., a food-source. Consequently, the emotions of animals play a decisive role in their unique teleological activity: the activity directed towards spatially distant goals, food or safety, as we discussed above. Absent such emotions and the animal would likely not move toward these novel goals. Thus, though emotions do not set novel organic goals organisms as do sensation and locomotion, they still play a critical role in the activity toward and realization of such goals. They are a key component to the unique teleology of animals.

**Human Teleology: Complex Intelligence and Truth**

Now that we have analyzed the unique aspects of animal teleology, we turn to discuss unique aspects of human teleology. Before doing so, however, we need to bear in mind the following: humans, as rational animals, also experience the goals and goal directed activity described above. Human sensation is oriented towards mediate engagement; human locomotion occurs for the sake of obtaining mediate goals; and human emotion is crucial in the initiation and continuation of such goal-directed actions. Granted, human goal-directed activity is not exactly like animal activity. Human locomotion to work, for example, is not done for the sake of obtaining directly a food-source or of avoiding danger. The obtaining of food or the avoiding of danger are more removed from this behavior of going to work. However, there is still the end-state of having money to buy food, shelter, etc. which stands as central goal of human movement to and from work. Hence, when Jonas examines the unique aspects of human teleology, he is not looking at these sorts of action analyzable in more basic, animal-like terms. Instead, he addresses
unique human capacities—our complex intelligence and our heightened freedom—and examines the sorts of human-particular goals that arise coincidental to such capacities.

That said, we turn to our present discussion. Jonas begins his discussion on human intelligence by looking at the artistic endeavors of man. Insofar as humans make art, we are capable of employing a strong sense of memory. We can recall a prior sense experience and from that produce art reflecting the thing(s) originally experienced. With the use of art, we can become present (intentionally at least) to absent things. Jonas, furthermore, contends that in our artistic endeavors we employ another uniquely human function, i.e., imagination. We can gather together the memory of things seen; likewise, we have the capacity to create images about things, both experienced and un-experienced. Thus, we can imaginatively represent the world to ourselves and can form an understanding of it through the use of such images.

Jonas, however, thinks that these artistic and imaginative capabilities of man also involve an eidetic component. ( for Jonas, indicates the “form” of a thing, which form “remains identifiable and continuously represents [this] . . . same thing.” Human art and imagination show that we can abstract from the sensed object and contemplate its . Through the use of art and imagination, we can contemplate what something is, even if it is physically absent. The idea of something becomes the new object of consideration. What also becomes apparent here is that humans are able to formulate entire systems built upon abstract concepts, and then we can even make comparisons among and adjudicate between rival systems. Put differently, we can move from the sense object as primary to the eidetic object, abstracted from the sense object, as

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172 The Phenomenon of Life, 170-171.
173 Ibid.
174 Ibid., 162
175 Ibid., 167-170.
primary in our intention. Thus the idea of something becomes an intentional object for the human mind.

Jonas further posits that in our minded activity we also have an interest in objectivity. For example, the art we make is not merely for the sake of some subjective expression but rather is directed primarily towards a novel expression of the eidos of the thing depicted. The art done in this way thus opens up for us the depicted thing in its objectivity and truth. After all, says Jonas, “image–making is . . . placed under the larger class of man’s efforts for truth.” As Robert Sokolowski might put it: we artistic human beings, with complex intelligence and abstractive abilities, are “agents of truth.” The intellectual orientation evidenced by our artisanship—that is, the proper use of our abstractive abilities qua human—is directed towards experiencing and knowing the truth. In our ability to grasp the eidos of something, we aim at the objective truth about it. Our eidetic activities are oriented towards objective truth.

Jonas pushes this analysis further when he discusses the human approach to death. We make graves for our dead; we bury and honor them with elaborate ceremony. We do so because we have formed beliefs about posthumous existence: i.e., the possibility of it, where and how it

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176 Ibid., 167. “Eidos as such . . . becomes the real object of apprehension.” See also Mortality and Morality, 80: “the eidos as such . . . becomes the real object we experience.”
177 Jonas, in his essay on “The Nobility of Sight” in The Phenomenon of Life, elaborates on this interest in objectivity. With our ability to see things over distance and from multiple perspectives, we can grasp such things objectively. “Objectivity emerges pre-eminently in sight.” (Ibid., 144) See also Theresa Morris’s Hans Jonas’s Ethic of Responsibility, 81: “With sight is enabled the philosophic and scientific perspective of objectivity.”
178 The Phenomenon of Life, 158-159: “in the pictorial representation the object is appropriated in a new, non-practical way, and the very fact that the interest in it [the object] can shift to its eidos signifies a new object relation.”
179 Mortality and Morality, 81: “As the re-creator of things “in their own image,” homo pictor submits to the criterion of truth.”
180 The Phenomenon of Life, 175.
181 See, for example, Robert Sokolowski, Introduction to Phenomenology, (New York, NY: Cambridge University Press, 2000), 120.
182 Ibid., 120-121. “A human life” is one “in which reason illuminates the things around it” and serves “as a dative for the way things appear in the whole we call the world.” In this sense, “man [is] a player in the game of truth, one who [can] claim and confirm, quote and infer, deceive and unmask, deliberate and decide.”
may occur, etc.\textsuperscript{183} We seek to understand an \textit{eidos} of something profoundly metaphysical.\textsuperscript{184} In this way, we humans have a metaphysically-directed nature. Our minded orientation is directed towards the most basic questions of the universe, such as \textquote{\textit{What am I—beyond what I do and experience at a given time?}}\textsuperscript{185} We want not only to know the \textit{eidos} of something sensible; we also seek to know the \textit{eidos} of Being itself, beyond our sense experience.\textsuperscript{186} Humans seek out, through enterprises such as \textquote{religion, ethics, and metaphysics}, objective truth about everything that is.\textsuperscript{187}

We should briefly recap what we have seen. Humans, with our imaginative, artistic, and abstractive abilities, are directed towards objective truth, both about the things directly experienced and those beyond our direct experience. Through the use of art, images, and abstract ideas, we want to know the nature of reality.

However, our main focus ultimately concerns teleology, and so we ask: what does the aforesaid presentation tell us about human teleology? The answer to that question has already been implied, insofar as we discussed our aiming at and orientation towards truth in our activities such as art or ceremonies for the dead: we act as we do for \textit{the sake of} knowing the truth. Just as a plant’s action of photosynthesis and a squirrel’s motion towards nuts aim at the obtaining of basic nutrition, the human actions described above aim at the obtaining of truth. Jonas, of course, does think that humans do still exercise teleology in their nutritive activities. For Jonas, we humans do obviously feel hunger and from that affective state, we move toward eating; in fact,

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\textsuperscript{183} \textit{Mortality and Morality}, 83: \textquotemdash\textquote{With graves, the question takes on concrete form \ldots where am I going?}"
\textsuperscript{184} Ibid., 84: \textquote{Metaphysics arises from graves.}"
\textsuperscript{185} Ibid., 83.
\textsuperscript{186} For Jonas, we humans—\textquote{with our complex intelligence and abstractive ability to perceive eidetically—ontologically consider ourselves and what we are. Questions such as \textquote{what is my place and part in the scheme of thing} or concerns \textquote{with the unpaintable image of [my] own conduct and the state of [my]self} are foundational exercises for our individual existences. (\textit{The Phenomenon of Life}, 185)
\textsuperscript{187} \textit{Mortality and Morality}, 84.
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this affective state is fundamental to our being in the world, even though such states are often overlooked in philosophy. Rather, the main point here is that insofar as humans uniquely possess and exercise abstract intelligence, that unique possession and exercise tends toward a goal heretofore unknown in the organic community, namely truth. By nature, insofar as we have “purposes beyond the biological,” we humans aim at the truth.

In which case, it follows that human fulfillment is tied to our experience of truth. For Jonas, one’s participation in the truth helps him achieve his full human telos. After all, living properly means “not to feign and dissimulate one’s designs . . . to speak one’s mind and not to hide it, [and] to be frank and open.” This fact of truth’s pertinence to fulfilled living can be seen in two different contexts, (A) one’s existence with himself and (B) one’s existence with others. For (A), I am perfected insofar as I am sincere with myself in “the confrontation of the self with itself.” I honestly apprise my current state of being co-relative to the “image of man” that I should be incarnating, and I try to respond accordingly. Likewise, for (B), I perfect my existence in a community insofar as I am sincere with others and avoid “crafty, verbal dealings of . . . communal life.” After all, “to be true . . . means to be genuine and reliable and undisguised,” and so human flourishing is tied to human honesty, or “moral truth.”

Yet it is not merely in such contexts that truth obtains in human flourishing. Even when we conceptually bracket off such contexts, the attaining of truth is essential to human flourishing. Jonas, in this regard, agrees with Aristotle. Granted, Jonas does not agree with Aristotle’s

188 See ibid., 44.
189 The Phenomenon of Life, 178: “the issue of truth or falsehood” does not pertain to animals.
190 Mortality and Morality, 79.
191 Ibid., 181.
192 Mortality and Morality, 84.
193 Ibid.
194 The Phenomenon of Life, 181.
195 Ibid., 180
196 Ibid., 181.
contention that civilization, once in proper order, ought to gear itself toward fostering philosophers and philosophical contemplation. More importantly, Jonas thinks that the Aristotelian notion of contemplating finite, eternal and immutable cosmological principles is no longer feasible because of the “hypothetical character of modern science” and “the idea of potentially infinite progress [that] permeates the modern ideal of knowledge.” Nonetheless, Jonas, in the main, agrees with Aristotle’s contention that a proper human goal is the contemplative life. If we are agents of truth, then contemplating the truth as such, especially in its most fundamental and necessary features, is constitutive of our human perfection. This contemplative life, says Jonas, must also avoid being “deaf to the demands of reality.” The disinterested philosopher who contemplates the geometric proportion of the stars while neglecting moral issues of his day is not Jonas’s picture of the fulfilled human being as an agent of truth.

For Jonas, human fulfillment is always tied to direct human action in the world (a point noted above in regard to communal existence and a point we will flesh out in the subsequent discussion on human responsibility). Contemplation, consequently, must relate properly to, and not neglect or fail to foster, such action. Jonas talks about how human knowledge should be connected to “love” and a sense of “reverence.” That is, human knowledge should be used for understanding the situations of our fellow human beings and also should acknowledge and be

197 Ibid., 206.
198 Ibid., 207.
199 Ibid., 206.
200 See The Nichomachean Ethics Bk. 10, ch. 7 where Aristotle talks about how contemplative lives are best geared towards what is best and most worthy of study.
201 The Phenomenon of Life, 205.
202 After all, Jonas himself, during the horror of WWII, fought against the Nazis in the British Army. In addition, Jonas directly responded to the pressing contemporary issues of the threats posed by modern technology, especially to the natural world.
203 Ibid., 197.
responsive to the good to which we bear responsibility and which demands reverence from us. Thus, the proper direct action we are discussing here refers to human acts that help instantiate such love and reverence. Such a qualification to contemplation, however, does not undermine its centrality to human flourishing. After all, the flourishing of an organism is the proper exercise of its species particular abilities, and Jonas, as we have seen, is clear that human organisms have a species-particular ability to grasp the truth. If a flourishing bear is the one that performs best his specific work of catching salmon and eating berries, then the flourishing humans is he who performs best the work of obtaining, knowing, and instantiating the truth.204 The flourishing human state of being-at-work-staying-itself includes the perfected use of man’s mental capacities in grasping objective truth. The truth stands as the proper telos of our complex intellectual activities, and being perfected agents of truth is part of our properly human entelecheia.

**Human Teleology: Freedom and Responsibility**

Our next task is to expand upon a topic discussed briefly above, namely how humans, because of our intellectual ability, are likewise capable of a new kind of freedom, heretofore unknown in the organic community. Humans are capable of the following three modes of freedom: (A) the freedom of directing our minds towards various objects of thought; (B) the freedom to reformulate sense experience into differing sorts of images (as discussed earlier in our examination of imagination); and (C) the freedom to “transcend” the limits of “the sayable . . . the finite . . . the sensible . . . [and] the temporal.”205 We have already seen how this freedom

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204 Recall Jonas’s point, discussed on page 207 of this chapter, about the flourishing bear being the one that is properly functioning, in good working order.
205 *Mortality and Morality*, 174.
plays out in our human orientation towards the truth. Now we will see how this freedom also involves a directionality towards the Good.

To start, we need to see the connection between human freedom and action. The first such connection which Jonas examines involves the aforementioned first form of freedom (i.e., point A from above about freedom of mind) allows us to not be determined by the pressing necessities of the “body” or the immediate “situation.”\(^\text{206}\) To illustrate this point, we can consider the work of another Jewish thinker, Victor Frankl, in his *Man’s Search for Meaning*.\(^\text{207}\) One of Frankl’s main points is that even in circumstances such as Auschwitz, where basic needs are unmet and basic dignity attacked, humans can still determine their own attitudes and responses to the situation. For instance, Frankl could focus on love and care, in lieu of anger and resentment\(^\text{208}\), and with that attitude employ his medical skills for the benefit of fellow prisoners.\(^\text{209}\) The ability to determine one’s attitude in a given situation leads to the ability to orient one’s actions therein. The second connection between freedom and action is the following: because we can formulate our own images of the world (the form of freedom discussed in point B from above), we can act in new ways based on such images.\(^\text{210}\) By imagining X in a novel way, I am liberated from a “preprogrammed behavioral response to it.”\(^\text{211}\) Actions such as “making, dancing, singing, speaking, [and] writing” are based on this imaginative freedom.\(^\text{212}\) We sing because we imaginatively experience the world in a certain way. The third and final point of connection (the form of freedom mentioned in point C from above) pertains to the

\(^{206}\) Ibid., 175.
\(^{208}\) Ibid., 49-50.
\(^{209}\) Ibid., 62.
\(^{210}\) Mortality and Morality, 175.
\(^{211}\) Ibid.
\(^{212}\) Ibid.
Insofar as we are free to examine “the infinite . . . [and] the eternal,” we experience ethical demands that transcend the considerations of our immediate situation. Our natural desire for food while we are hungry may be subordinated to the moral claim that the food we would take belongs to another and that stealing, regardless of hunger, is always wrong. Hence, our moral action is to refrain from taking the nourishment our bodies naturally would lead us to consume. Our transcendent freedom positions us next to absolutes that override the biological claims immediate to us and leads us to act as moral agents. The three modes of mental freedom, forms A-C from above, thus correspond to three modes of free, human activity we have examined here.

But Jonas does not see human freedom as isolated; rather, he places it in close connection to responsibility. With great freedom comes great responsibility. In Heideggerian terms, Jonas could discuss humans as “being-responsible-for” and “being-responsible-to.” Yet, what do “being-responsible-for” and “being-responsible-to” mean? The former pertains to our human actions and taking ownership for such actions and their consequences. When I perform action X, I am responsible for X and the outcomes of X. Furthermore, this responsibility for my actions

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213 Ibid.
214 Ibid., 174-175.
215 This sort of free action, however, is not to be confused with the free actions of organisms, even animals. For Jonas, freedom does indeed go together with organic existence, in that, first of all, organisms are free in regard to the matter they contain here and now. Organisms are not tied to this matter as such, the way that inorganic entities are. A second grade of freedom (which incorporates this first degree of freedom and also goes beyond it) arises with animal existence. Animals, unlike plants, are not tied to this particular space and possess the freedom of mobility. They can freely move in various ways: fast or slowly, directly or indirectly, steadily or intermittedly, etc. They are also free to pursue various goals, such as nourishment-sources distant from them. Human freedom as discussed above is a qualitatively new level. It involves a freedom from pressing, basic organic needs and desires. It involves a freedom from a single determinate manner of experiencing the world (i.e., a manner structured by such basic needs and wants). It involves a freedom to experience—albeit mentally—things beyond one’s own immediate world and even beyond human existence in general. And it involves the freedom to be moved by this transcendence. In short, it is the freedom of minded, moral human agents.
216 See Mortality and Morality, 101: “responsibility, therefore, is complimentary to freedom.”
217 Jonas, in this way, prefigures Spiderman, whose “great power” coincides “with [his] great responsibility.”
218 These formulations of “being-responsible-for” and “being-responsible-to” are not Jonas’s own. Thus, the quotation marks indicate my extension of his thought found in Mortality and Morality, not a direct quotation.
219 Mortality and Morality, 101. “What I am naturally responsible for are the consequences of my actions.”
arises “to the degree that they affect a being . . . of some value.” I am not responsible for the condition of a rock I drop, because there is no value placed at risk. However, were the rock to strike a person, a valuable being, then I would have to assume responsibility for him, insofar as my action of dropping the rock duly affected him. Valuable persons and things, within my sphere of free (and hence moral) activity, demand of me that I exercise responsibility for them.

On the other hand, “being-responsible-to” arises ontologically, not ontically: “the valuableness of Being as a whole . . . is that to which I have always been responsible in all my potential actions.” My actions can only be performed within the context of Being and the value found in Being. Such ontological value places a claim on me to respect it always in whatever I may do. Qua free, I can choose to disregard this imperative of responsibility, yet the foundational structure of “being-responsible-to” still obtains. In a sense, Jonas’s Being functions here in a manner similar to how the concept of God functions for the Christian who must make an account of himself before the Almighty. Similarly, for Jonas, we all must make an account of ourselves before Being, which has placed on us a responsibility to honor the value found within it. “Being of the whole in its integrity is the authority to which our act is responsible.”

Therefore, our responsibility demands that we respect value, both in individual beings and in Being itself. But we must also recall how for Jonas, that which is valuable in itself is also

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220 Ibid.
221 Ibid., 104: “It is the [valuable] being of this or that thing for which the individual act incurs responsibility.”
222 Ibid.
223 Here, we are reminded of Jonas’s “ontology of value” as discussed at the end of Chapter One. Being, especially living Being, is valuable and so our actions towards it must take into account that value and respond accordingly.
224 See The Imperative of Responsibility, 75, for a discussion on how we can decide to disregard the demands placed on us by Being.
225 Mortality and Morality, 102 “a commandment can proceed from the Being of things themselves.”
226 Ibid.
good. Thus, we are responsible for the “Good,” and “its . . . prerogative to be.” We are responsible for respecting what is good in reality and also for ensuring its continued existence. Hence, we are, in virtue of our free human nature, placed under the demands of Being and called to respect the Good found within Being. Being places on us ethical demands; our actions ought to acknowledge and foster the Good. The freedom of humanity is not totally indeterminate but rather is structured according to a foundational responsibility-to and a consequent responsibility-for. Because this sense of responsibility is found for any possible actions we perform, then such actions are always directed towards the Good to which we are ultimately responsible.

Since our main concern is the teleology of man according to Jonas, we need to indicate the teleological nature of what we have just discussed. Framed in teleological terms, man, qua free, aims in his actions at what is good: free “will is for the good and must be informed by a conception of what is the good.” Just as the actions of organisms in general are directed towards their own individual good (i.e. a state of flourishing survival), so, too, are my moral human actions directed towards good, i.e., the good of those entities for which I am responsible and the ultimate Good of Being to which I am responsible. Jonas distances himself from Heidegger (and indeed much of existentialism), for whom our actions have no ultimate teleological structure. Rather, he returns to the classic idea that humans are called to the Good. Only by denying our humanity (i.e., our state of being-responsible-to that coincides with our natural freedom) can we tend away from the Good in our actions. The _telos_ of my minded human action is ultimately the truth, and the _telos_ of my free human action is ultimately a proper _

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227 Ibid.
228 See Ibid., 103 for a discussion on how we must consider the future effects of our actions and see if and how they accord with this demand of being.
229 The former is foundational in that it obtains for any possible actions. The latter is consequent in that it obtains for us insofar as we act in such a way as to actually affect beings of value around us.
230 _The Phenomenon of Life_, 197.
participation in the Good. I am, in virtue of my mind, oriented toward knowing reality as such. I am, in virtue of my freedom, oriented toward being a responsible and ethical agent. Hence, we can say that for Jonas, humans are agents of the Good, in addition to the truth. Jonas sees human action (and ultimately human life) as being teleologically oriented toward an intellectual and moral participation in the true and the Good.  

Such a position indicates that Jonas attaches a certain axiological significance to teleology. We saw in Chapter One the axiological significance that followed from the purposiveness of organisms: i.e., the discussion on objective value and good as found in purposive, living nature. Now we want to clarify the specific relevance for humans of this axiological significance. In brief, insofar as humans are teleologically oriented by nature towards the Good, then our human teleology involves us in an ethical sphere. Since, “we can form the concept of a specific ‘good’” for things based on the ends “properly belonging to the nature of the things themselves,” then insofar as we grasp the end of human nature, i.e. a participation in the Good as discussed above, then we can also adjudicate the moral status of particular actions and ways of life by how well they foster or oppose that proper end of man. In this regard, Jonas is like Aristotle: the end dictates how we should live, ethically speaking.

That said, we want now to see how the human orientation to the Good pertains to the proper human entelecheia. To start this discussion, we can contrast the human situation with that of other organisms. Plants and animals, even more sensitive and intelligent ones, are not moral

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231 This dual orientation of man is something Jonas addresses in his essay on “The Practical Uses of Theory.” (The Phenomenon of Life, 188-210). Jonas asserts that theory and practice are not ultimately separate but that “theory is thoroughly immersed in practice.” (Ibid., 209) If so, then what we know and how we know it must play out in how we should and in fact do act. Our minded humanity thus tends towards knowing what is true and putting that knowledge into practice in accordance with what is good.

232 Philosophical Essays, 86.

agents. They cannot be held responsible for what they have done or what they have failed to do. Their entelecheia, therefore, will not involve a full and proper use of responsibility or other moral faculties. A non-human organism is fulfilled absent meeting any moral obligations. On the other hand, the moral obligations of the proper exercise of responsibility are always relevant for humans. To be fully human is to be good, here seen in a moral, not merely species-particular, sense, as was the case with more basic organisms. The healthy, fully functioning tree and the mobile, emotionally satisfied dog are both complete in their respective species-particularity. Yet physical and emotional fulfillment are not sufficient for proper human flourishing. Humans must also exercise well their innate responsibility-to and responsibility-for. In which case, just as human teleological fulfillment required participation in the truth, then likewise will such fulfillment require also a corresponding participation in the Good. Our specific mental freedom and capacity for responsibility, given their centrality to the structure of human existence, must be employed often and well in order for us to be fulfilled. The entelecheia-end of my activities is the perfection and actualization of my response-abilities.

Human Teleology: The Making and Use of Tools

Our next topic to address is the issue of human teleology and tool-making. Nonetheless, we first need to explain why we have a discussion of tools in a chapter devoted to organic teleology. The explanation is actually quite simple. For Jonas, humans are primarily organisms.

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234 See, for example, Robert Sokolowski, *Introduction to Phenomenology*. Sokolowski discuss how a human person, with his transcendental ego, is a “responsible agent” capable of “moral interventions.” (Ibid., 118-120) He can, for example, develop the virtue of justice, since “the virtue of justice is the exercise of reason par excellence in practical matters.” (Ibid., 117) Nevertheless, since animals do not possess such heightened intelligence, i.e., they lack transcendental egos, they do not operate with a moral framework; hence, the denotations of good or bad cannot be applied to their actions in an unqualified manner. (Ibid., 119)

235 Recall our discussion from page 53 of this chapter about the good of organisms being a state of species-particular flourishing. With humans, there is an added dimension of moral goodness.
We are akin to and belong in the community of Life. Granted, we perform certain actions, such as seeking the truth of things, which other organisms do not. However, our human specificity does not mark a dualism between ourselves and other organisms. Jonas, rather, argues for a continuity of Life, including human life. Hence, unique actions of humanity do not imply our radical separation from other organisms, just as the unique action of photosynthesis does not imply the radical separation of plants from other organisms.

For Jonas, aware human freedom also leads to the human production of tools. Thus, we need to look at issues of teleology as they concern human tools and tool-making.

Jonas argues that humans are the only species to employ tools, properly speaking. We are the sole species who reforms and constructs pre-existing material in new and previously unimagined ways. The human tool, unlike a twig used by a bird, is an item made intentionally as such by minded human agents. In fact, many current human tools, such as a computer, are far removed from the natural entities and patterns used by animals and plants. Human tool-making renders into being a distinct and unique set of entities.\textsuperscript{236}

We next note that Jonas’s paradigm example of end-directed tools is a hammer. We have seen already how Jonas employs the example of a hammer in order to detail the basic contours of teleological things and activities: i.e., a tool is made for the purpose of hammering; a hammer, even when used poorly, is still used for that purpose.\textsuperscript{237} What is more important for our present concern is the following: hammers, qua tools, show how the imaginative capabilities of humans generate new teleological entities.\textsuperscript{238} That is, hammers are made because humans have the ability to imagine something capable of pounding and pulling nails (or something nail-like)

\textsuperscript{236} See \textit{Mortality and Morality}, 78.
\textsuperscript{237} Recall our discussion on this topic at the end of Chapter Two.
\textsuperscript{238} \textit{Mortality and Morality}, 78. The “form [of the tool], present in the imagination,” is what leads to the genesis of the tool.
effectively.\textsuperscript{239} We do not merely perceive the already-existing items around us and inquire into their utility for our purposes.\textsuperscript{240} Rather, we ask what we can make out of such material, i.e., how this material may serve us in producing items previously only existing as imagined. Our imagination opens up a field of new possibilities: new types of things in the world and new types of activities coincidental with such things. (E.g., the activity of typing occurs only when there are human-made machines on which to type.) In short, human tool-activity, stemming from human imagination, is novel form of behavior in the organic community.

Yet not only is it novel, it is also inherently teleological. “We may not always know the purpose of a specific tool, but we know that it had one, conceived in terms of end-means and cause-effect relations and produced as a result of this conception.”\textsuperscript{241} As Aristotle said 2500 years ago about bridle-making and other such actions, so does Jonas reiterate today.\textsuperscript{242} We make tools for the sake of having them complete our intentions. They exist because of some human project they can help fulfill.\textsuperscript{243} Of course, there can be levels to such purposiveness. A hammer’s main purpose is hammering, but since hammering itself is done for the sake of constructing shelter, or putting up artwork, or building furniture, those ends are also served by the hammer. In any case, humans make tools for the sake of such tools fulfilling various human aspirations.

But tools serve an even greater purpose for intelligent, free humans, according to Jonas. We saw above, that the proper use of our intelligence and freedom was constitutive of our human

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\textsuperscript{239} Of course, the hammer and the nail likely arise concurrently, given their mutual interdependence. However, the main point here is that for the function of putting-together items used for shelter, some tools have been imagined and produced by humans, most notably hammers.\textsuperscript{240}
\textit{Mortality and Morality}, 78.
\textsuperscript{241} Ibid., 85.
\textsuperscript{242} See \textit{The Nichomachean Ethics}, Bk. 1, ch.1.
\textsuperscript{243} See, for example, \textit{Mortality and Morality}, 78. Some tools, such as an “axe,” are designed for our direct involvement with the natural world. Other tools, such as tool-sharpening device, are designed to be used on this first type of tools. In fact, there can be whole host of different types of tools, whose purposes are oriented towards the artificial spheres of human action, e.g., software “tools” used to repair computers.
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fulfillment. Now we shall see how tool-making is a significant aspect of such properly employed intelligence and freedom. After all, making tools requires freedom and intelligence. We use our freedom in tool-making, in that we are not bound to the existing lay-out of world but consider it in new ways, manipulate it, and create from it tools heretofore unknown. We can choose to reconfigure aspects of the world. Likewise, in tool-making, we use our intelligence in considering and working on the world around us.\textsuperscript{244} We plan and design certain instruments, far beyond the animal capacity to employ pre-existing parts of the natural world. Man is \textit{homo faber}. Thus “the ability to produce” tools and the exercise of that ability are “part of being fully human.”\textsuperscript{245} To achieve our proper human \textit{telos} we need to use our tool-making capacity well.

However, we need qualify what it means to use “well” this capacity: in short, tool-making must be properly directed in order to help constitute the human \textit{entelecheia}. Otherwise, the tools we make could oppose and hinder the proper human end. After all, as we saw, human fulfillment requires that we are both responsible-to and responsible-for. The freedom of making tools, therefore, no matter how central to our humanity, must be exercised in agreement with our foundational sense of responsibility. A tool that detracted from our natural sense of responsibility may be an improper tool, in that it hinders us from realizing fully that state of responsibility. A tool “not put to such service [of the human good] . . . misses its’ \textit{raison d’être}.”\textsuperscript{246} Consider the case of some forms of computer and phone technology, e.g., virtual reality tools, Google glasses, that remove us from experiencing the natural world. By removing us from that milieu (and from understanding and appreciating that milieu) in which our fulfilling sense of responsibility is

\textsuperscript{244} Ibid., 78: Humans, in making tools, must possess and exercise “an eidetic power of imagination and an eidetic control” over the material manipulated to create the tool.
\textsuperscript{245} Ibid., 86.
\textsuperscript{246} \textit{The Phenomenon of Life}, 197.
fostered and borne out, might such tools harm human fulfillment? Jonas is clear that an ontological grasp of the natural world—which underpins our ethical response to that world—is just as important to our humanity as is our tool-making. Jonas wants to foster in us a proper apprehension of nature that will then foster this sense of ethical responsibility. In order to understand better this situation, think of the film Wall-e and its depiction of a dystopian future in which humans primarily engage with compute-based virtual reality, so much so that Earth is covered in trash, and many life forms are sickened to the point of extinction, thus requiring humans to exist in space. The question raised by the film concerns the appropriate use of computer tools and perhaps even their being appropriate at all to humanity. The orientation of tools toward human ends and the human end being found in responsibility implies that we be careful of the tools we invent and use or else we run the risk of contradicting our own nature and its fulfillment. Our intelligent human freedom is always shadowed by responsibility, perhaps nowhere more so than in our tool-making capacity.

To be clear, this sense of responsibility in regard to our tool-making does not merely (or mainly) pertain to removing us from our environment or even from Earth. Rather, it pertains to the extent to which out tools either help or hinder a “solidarity of interest with the natural world.” If tools become such as to allow us a quasi-virtual existence that is detached from and decidedly disinterred in the natural world, then, for Jonas, such tools are contrary to our human being which ought always to affirm “the vote of Nature.” Since the “plenitude of life, evolved

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247 Theresa Morris, in order to demonstrate the failure to see the natural world as it is in its primal splendor calling out for an ethical response, uses the example of the indifference to a lunar eclipse shown by her NYC neighbors. *Hans Jonas’s Ethic of Responsibility*, 25.

248 *Mortality and Morality*, 86.

249 *Hans Jonas’s Ethic of Responsibility*, 83: “What Jonas argues for is a re-evaluation of our intentional approach to nature . . . in order to reassess the human relation to nature . . . A new human relation to nature will be reflected in and will foster, a more responsive intentionality toward the world.”

250 *The Imperative of Responsibility*, 136.

251 76.
in eons of creative toil, has a claim to our care,” then tools that remove us from life or blind us to its value are potentially unethical, in that they work against our responsibility to the natural world. For example, suppose someone becomes immersed in smart-phone technology, so much so that he rarely, if ever, cares to watch the sunset, or listen to the sound of robins singing in early spring, or smell the scent of white pine trees in the summer. The phone has provided him what he considers to be sufficient objects of interest, curiosity, or maybe even wonder. In this regard, the tool has rendered him disinterested in and unappreciative of the same natural world toward which he has a basic and significant sense of responsibility. The tools may hinder him from feeling the sort of “solidarity” with the natural world that would foster the exercise of this responsibility. In brief, Jonas’s question for contemporary tools is this: does the tool help us be more present with and responsive to the natural world, or does it work against such being present with and render the natural world a distant object to our intentionality?

**Teleology and Human Institutions**

Nevertheless, Jonas’s analysis of man-made things and teleology goes beyond examples such as hammers. We need first to talk briefly about Jonas’ discussion on a court of law, another instance of a higher order man-made things (in this case, an institution, not a tool as such). For Jonas, such a court is structurally oriented towards justice: its end is the deciding of what is just for those who bring cases before it. For instance, the purpose of the Supreme Court is to mete out justice for those cases presented to it. Of course, the consequences of such decisions extend far beyond the immediate plaintiffs and defendants of the case and duly affect

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252 Ibid., 136.
253 Ibid.
254 *The Imperative of Responsibility*, 53.
the laws of the United States. However, Jonas’s main point still holds: the Supreme Court exists for the sake of deciding justice for the people of the United States. As Jonas notes, the external appearance of the justices (e.g., their robes) and even the current membership of the court (e.g., the nine Justices currently on the US Supreme Court) are inconsequential to its telos.\footnote{Ibid., 54.} Just as the hammer is for the sake of hammering, the court is for the sake of realizing justice.

Yet Jonas is also quick to distinguish these two in the following regard: an unused hammer is still a hammer (and end-directed towards hammering), even if it has been unused for a long time; however, the existence of a court of law is much more tied to its functioning.\footnote{Ibid.} Courts can only take limited breaks and most often are in session, whereas there can be extended time periods of lack of use for hammers, which, despite such lack of use, still remain teleological. For the court, there is something quasi organic about how much its existence is tied to its functional activity. Also, the court differs from the hammer in that while the hammer’s task is performed by an external agent, the agency of the court lies within it. The justices themselves are the ones who act, not anyone over and above them.\footnote{Ibid., 53.} Now of course this activity—this trying of cases and trying to decide on what is just—can fail to achieve the purpose for which the court exists at all. A court’s attempt to realize justice is no guarantee of success. But the court is still working for that end. In short: a court of law is an institution, unique to us, conceived from the human imaginative ability. Our ability to imagine how best to serve justice in our communities leads to tools such as courts of law, whose proper telos is the realization of justice for that community.
Human Goal-Setting and Its Proper Limitations

To close, we need to flesh out what has been heretofore only hinted at: humans, as such, have the unique ability to set novel sorts of goals. Jonas states that “only human freedom permits the setting and choosing of ends . . . to the point of fully and devotedly making them one’s own.” This claim makes explicit the ideas implied in our previous discussion on human nature and teleology. We have seen how our human freedom permits us to see the world, to make instruments from the world, and to operate in a moral sphere, all in ways transcendent of the capacities of every other organism. Now we see how this freedom indicates that we can set ourselves novel sorts of goals. Man, for Jonas, is “the seat of purpose,” given his capacity for complex reasoning and freedom. For example, we can set for ourselves the purpose of representing the beauty of nature in painted or poetic form; indeed, we can likewise set for ourselves the goal of viewing or even critiquing that artwork by visiting a museum or reading a book of poems. In fact, one’s goal of making art may become something he “fully and devotedly” pursues to the point of becoming a professional painter or poet. As Heidegger might say, one is free to decide the fundamental way of being he wishes to instantiate in his life. One can have in mind a particular mode of life that he chooses and purposefully pursues. In this case, it is not really his basic biological needs that stand as ends. Instead, he has an image of who he wants to be, an image he tries to make actual in his life. This image may not have been previously instantiated at all, but insofar as he is free to conceive it, he is likewise free to try to “make it his own.” Jonas thus contends that human life is constituted by “its enticing openness.”

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258 The Imperative of Responsibility, 81, n 2.
259 Ibid., 55.
260 See Ibid., 86, n 5.: “man’s will is responsive to ends beyond his vital ones.”
261 Philosophical Essays, 164.
for me, even my own past—should not determine how this existence unfolds or that for which it aims. Here, we see Jonas’s existentialism in full: he posits freedom as central to human existence, in this case, the freedom to pursue what sort of person I want to be. This “most intimate sphere” of one’s basic existence must be examined, known, and informed, in a deep way, by the one whose existence is at stake. Jonas follows closely upon Heidegger here.

Nevertheless, unlike Heidegger, Jonas does not posit this freedom as obtaining in a vacuum; the human capacity to set goals is properly limited according to certain demands. Granted, as Jonas states, free human agents can reject obligations placed on them by the goodness of Life. However, merely because we can so does not mean that we should. We have already seen this axiological significance theme with regards to human ethics in general, human institutions, and human tool-making. Now we see how it pertains to human goal-setting. The sorts of purposes available to us as moral agents are not infinite. There is an “obligating force . . . upon Man” issuing from the Good of Being, especially the Good of purposive Life. Thus, in pursuing my own purposes, even those ones I value immensely and from which I derive much satisfaction, my activity should always take into account this obligation. My purposes may be “worthy or unworthy,” and they are so, not because of my preference, but because of the demands Being places on me as a moral agent who should, as we saw, bear responsibility to it. Jonas offers a thorough critique of a “volutaristic” idea of our pursuit of value or goodness.

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262 Ibid.
263 See The Imperative of Responsibility, 76-77. See also “Jurassic Park,” where Dr. Ian Malcom states, in criticism of the entire project of bringing dinosaurs to life: “[The] scientists were so preoccupied with whether they could, they never stopped to ask if they should.”
264 The Imperative of Responsibility, 82.
265 Ibid., 84.
266 Ibid.
267 Ibid.
Another limitation to human goal-setting arises from nature. Jonas talks about how humans are aiming now at the goal of possibly achieving immortality. Yet Jonas thinks that such a purpose ought not to be pursued. After all, “the naturally ordained, biological timing of our mortality” is what allows space for new generations to arise and attempt, as best as possible, the project of full humanity. “Youth, with its fumbling and follies, its eagerness and questioning, is the eternal hope of mankind.” And that youthful enterprise of seeking and exploring is realized as the older generations pass away and do not live eternally with their own modes of being becoming enshrined. In fact, this natural limitation holds even if humans were to stay forever young. Staying forever young would imply either that we eventually lose our connection to the past or that we just stay rooted in that past, having no prospect of death to compel us towards creativity. However, both options fail to foster a proper human relation to the past as an important influence, but not determiner, of the present; hence, eternal youth is not a purpose appropriate to humans. Thus, “not even the fountains of youth . . . can justify the goal of extorting from nature more than its original allowance to our species for the length of our days.” We are bound to set only certain goals that follow the already existing nature of things.

Summary and Transition

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268 This is not to imply that such limitations arising from nature are morally neutral. After all, Jonas’s morality connects to his ontology of nature, as we discussed in Chapter One, Part 4. However, there can be differing points of emphasis in this discussion. Previously, we saw how responsibility, an explicitly moral consideration, limits human goal-setting. Now, we will see how nature, which has a more implicit moral consideration, also limits human purposes.

269 Mortality and Morality, 96. This topic of reproduction will we address more fully in the following chapter.

270 Ibid.

271 Ibid.

272 Ibid., 98.

273 Ibid.
We now finished this examination of Jonas’s philosophy of organic teleology. We have seen how Jonas brings out several key points to inform his basic sense of this teleology: e.g., how organisms have, rather than serve purposes and how organic teleology is rooted in a corresponding “mindedness,” one which is not cybernetic but proper to living, needful creatures. And we saw how even plants, to a limited degree, exercise such teleology.

Next, we saw how organic parts are purposeful (in a way that is both similar to and distinct from the purposefulness of tools) in that they are naturally oriented towards both immediate and ultimate goals, the ultimate goal being survival. These parts are properly “minded” in their genesis and operation so as to qualify as purposeful. But parts also perform actions, so organic action was our next topic of discussion. There we saw that organic action, like parts, was also rooted in “mindedness”—in fact was akin to the human activity of walking—and also oriented towards immediate goals and the ultimate goal of survival. Even basic organic actions such as nutrition and growth are purposeful for Jonas. Finally, for both organic parts and actions, their teleology obtained within the context of the en-formed structure of the whole organism.

We then expanded on this theme of holistic teleology. The first point we addressed was that the organism, in virtue of is teleology, was likewise unified. The telos served to inform the “structural integrity” of the organism. Furthermore, we added an important qualification to that holistic telos. In short, it was not just survival but flourishing that stands as the end of organisms. A species-particular state of entelecheia is what organisms aim at teleologically.

Our final discussion pertained to the goals unique to animal and human existence. First we saw how animal sensation, motility, and emotion helped generate new sorts of organic goals such as spatially distant food sources or places of safety. Second, we addressed how human
intelligence, manifest in our artistic ability, is ultimately directed towards the truth. Our human telos involves our participation in what is true. Concurrently, our human freedom coincides with a responsibility-to and a responsibility-for. Thus, our actions are oriented toward fulfilling these responsibilities, and fulfilling them likewise helps fulfill us in our human nature as moral agents. Next, we examined the teleology of human tool-making and human institutions, such as the court of law. Finally, we examined the ability of humans to set goals for themselves and the limits attendant to this capacity.

Nonetheless, this entire discussion has involved one glaring omission. Nowhere have we presented Jonas’s views on the teleology of reproduction. Reproduction is a basic feature of all organic existence, and yet Jonas offers no real examination of it. He offers no sense of how organisms are directed towards the goal of begetting and caring for offspring. Aristotle, Kant, and contemporary theorists all talked extensively about this facet of organic teleology, yet Jonas does not. This is all the more surprising given his usual agreement with Aristotle. It is also surprising given his attempt to move beyond the enclosed perspective of Heidegger’s Dasein. If Dasein, for Jonas, is too self-enclosed, then why has he not talked about the teleology of reproduction, given how the organism that exercises such teleology necessarily is oriented beyond itself?

Therefore, our next task will be to see the possibility of filling in this lacuna in Jonas’s thought. Does he offer, at least implicitly, some ideas on how organisms seek out the purpose of reproduction? What sorts of thoughts might he have on the care of such offspring? Addressing these questions will consequently be our task in the following chapter.
Chapter Four
The Possibility of a Teleology of Reproduction in Jonas’s Thought

Having just examined in great detail Jonas’s multifaceted thought on organic teleology, we turn now to address a seeming oversight in his philosophy of life, namely reproduction. To be clear, reproduction here indicates not merely the act of a mother begetting an offspring. Reproduction refers to the process of organisms coming together and engaging in activities of mating, conceiving, giving birth to, and caring for children. (Mating is understood to be the phenomenon of sexually differentiated organisms performing a copulative act that leads to offspring. It obviously pertains specifically to humans and animals and only by large extension or metaphor to plants.) A human woman who has intercourse, becomes pregnant, carries the child to term, births the child, and then raises her child acts reproductively as understood here. It is a phenomenon seen first, in an analogous way, in plants, such as with seed-bearing fruit that produces other members of its kind. On the animal and human level, of course, we see the full articulation of this reproductive tendency, in which sexed organisms naturally pair off into male-female partnerships and copulate. This copulation leads likewise to children, who are now reared by the parent organisms. Finally, the children and parents form a bond of family. In this manner, organisms are naturally directed beyond themselves and are naturally social. The reproductiveness of organisms thus covers a range of interrelated activities.

That being said, we return our focus to Jonas. To see best the contours of Jonas’s oversight, we should look at Leon Kass. In his “Appreciating The Phenomenon of Life,” Kass tells of how one of his graduate students recognized Jonas’s failure to address reproduction. This student, looking at Jonas’s list of the powers and functions integral to life, commented: “well and good . . . but what about reproduction? Is this not also a central power and function of living
Unlike Kass, of course, our explicit focus is on teleology. Nevertheless, even from the perspective of teleology, we still can ask about Jonas: “what about reproduction?” Does reproduction have any place in his thinking on organic teleology? Does the phenomenon of conceiving, begetting, and caring for offspring, a phenomenon central to all forms of life, have any role in Jonas’s thought on teleology?

This chapter will address these and other related questions. The format of the chapter will be as follows. First, in part one, we will examine more of Jonas’s apparent oversight and some of the problems attendant to it. Specifically, we will focus on how Jonas’s failure to address explicitly the teleology of reproduction potentially weakens his philosophical biology and overall presentation of organic teleology, as well as potentially undermines his ‘ontology of value’ as posited in opposition to Heidegger. In part two, we will see how Jonas’s thought can be expanded to include reproduction. Specifically, we will address his analysis of responsible parenthood and how his thinking on this subject implies a self-transcendent teleology, found paradigmatically in humans but obtaining, as well, throughout the entire organic community. We will thus show how Jonas’s thought on teleology can address the issue of reproduction and allow for organic sociality and even self-transcendence.

Part I. The Problem of Reproduction in Jonas’s Thought

Jonas’s Lacuna

Jonas’s thought, at first blush, does not really address the topic of reproduction, let alone the teleology of reproduction. This oversight becomes apparent right from the start of The

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Phenomenon of Life, where Jonas lists metabolism, emotion, motility, sensation, even artistic skill as fundamental properties of being alive, while the pattern of begetting and nurturing offspring, so universal to Life, is left in abeyance. Nor is this abeyance rectified later in this work: Jonas never once mentions reproduction in The Phenomenon of Life. The existential struggle for survival, evidenced by amoebae all the way up the scale of Life, takes on primary importance for Jonas. The consideration is always the survival of the individual organism as such: how it can persist while constantly needing to replenish itself and survive amid external threats. Jonas’ presentation of organic existence depicts individual entities, that of, by, and for themselves, strive to say alive and healthy. Thus, each organism possesses its own world, through which and in which it operates for the sake of itself. As Jonas himself later admitted to Leon Kass, “a . . . celibate being, and even the last member of his species living on a deserted island, is still very much alive.”

This is so because “reproduction and sociality are not indispensable functions of life for an individual [organism] qua living thing.” From a more cynical perspective, one could denote this book as the phenomenon of sterile life.

A further reason to see Jonas as leaving out reproduction from his philosophical biology can be found in his statements on population control. Jonas fears that the world’s population will become such as to decimate the earth’s resources and imperil all future life on the planet, especially human life. Consequently, he takes great issue with the Catholic position on birth control, even going so far as to label John Paul II as morally irresponsible for prohibiting

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3 Ibid.
4 To be clear: Jonas not only fails to mention reproduction specifically but also sociality more generally. The failure to address the former indicates his more general failure to address the latter
contraception that could serve to help the long term, and morally imperative, survival of the human race. Viewed from a certain angle, therefore, Jonas appears to be making the following claim: the possibility of mankind’s existence, determined apriori to be good, outweighs greatly an individual’s desire for children. In fact, the desire to beget and raise children should be tempered according to the imperative of mankind’s continued survival. If one were to abstain entirely from having children, such an action would seem perfectly fine within Jonas’s framework. After all, humans, as moral agents, must always take into account their moral responsibility towards Being, as we discussed in the last chapter. If such an account calls for a practical sterility, or at least a due limitation on offspring, then the person, despite a lack of progeny, is still fulfilled in that he has realized his specific human capacity for moral responsibility. Because Jonas does not include reproduction in his basic categories of life, then reproductive activities do not seem essential to humanity; or at least they are far less important than are man’s moral actions.

Finally, in The Imperative of Responsibility, we see an obvious indication of this same sterile presentation of life, here couched in more deliberately teleological terms. “That the living being is its own end does not mean that it can set itself ends; it has them . . . Any simultaneous serving of the ends of other beings, even of its own brood, is only coincidently and by way of genetic disposition included in the pursuit of its own: the vital ends are selfish from the viewpoint of the subject.” In other words, Jonas posits that an organism’s own life stands as the essential and central end of all its activities. The “vital” goals pursued by the organism are

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6 “Closer to the Bitter End,” 27
7 “An Interview with Professor Hans Jonas,” 364: in order to “cope with the pending global ecological crisis” there needs to be “a diminishing . . . of the number of people” who will be born in the next generation.
8 See Chapter Three, pages 224-231.
9 The Imperative of Responsibility, 81, n. 2.
pursued ultimately for itself. “Only coincidently” or secondarily do such pursuits become directed at others, even offspring. For example, the continued survival and health of a mama grizzly will aid her cubs, insofar as such a state of health better allows her to find nourishment for these cubs and better allows her to protect them from threats. Nonetheless, such benefit for the cubs is not the proper goal, according to Jonas, of the mother’s teleological activities. Rather, she aims primarily at her own survival, which likewise also happens to benefit her cubs. Put differently: should the cubs suffer or die, the mother’s actions, on this reading at least, would still be of the same sort and tend towards the same goal, in that they are ultimately “selfish.” In fact, the realization of such goals and the fulfillment attendant to this realization does not seem to require the presence of or benefit for offspring. Again, we see that Jonas’s thought on teleology seems to depict organisms as isolated and self-centered.

*Jonas’s Lacuna as Compared to Other Thinkers*

At this juncture, it may be helpful to pause and analyze Jonas’s thinking on reproduction in comparison to other philosophers of teleology. First, we see that Jonas is far removed from the Aristotelian world of reproduction being an organism’s share in the divine. For Aristotle, the organism continues to be, in some way, through begetting offspring who preserve the lineage of the parent. In this way, the parent-organism imitates the divine state of eternal actualization and perfection. Likewise, Jonas differs from Kant’s presentation of organic teleology. For Kant, one of the three main ends of the organism was reproducing a member of its own species. The continuation of the species, therefore, stands as an integral goal of organic existence. And of course the Darwinian philosophers of teleology today continue this same idea, showing their

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10 See Chapter Two, pages 102-103.
11 See Chapter Two, pages 138-139.
distinction from Jonas on this point. Ernst Mayr, for instance, lists reproduction as a primary end of organic activity. Similarly, Ruth Garrett Millikan discusses the end-directedness of reproductive parts and actions.\(^\text{12}\) In short, Jonas stands rather alone in his failure to address the phenomenon of reproduction in his analysis of organic teleology.

What makes this failure all the more telling is that Jonas’s philosophical biology is in many respects a contemporary re-presentation of Aristotle’s thought. As we discussed at length in Chapter Three, Jonas agrees with and expands on Aristotle’s realist and robust philosophy of life. Jonas’s thought agrees deeply with Aristotle’s: they both have a robust understanding of nature as a principle; they both posit the presence of mind or psyche in Life; they both discuss the goal directedness of organic parts; they both distinguish organic functionality from artificial functionality; they both explore the goal-orientation of organic activity; and they both argue that a state of *entelecheia* is the proper end of such actions. In fact, Jonas himself on several occasions makes reference to an “Aristotelian’ understanding of being” in his work.\(^\text{13}\) In addition, commentators on Jonas employ Aristotle so as to best understand Jonas’s own philosophy of teleology.\(^\text{14}\)

But can Jonas still be “Aristotelian” when he fails to account for the place of reproduction in life? After all, for Aristotle, it would be difficult to ascribe fulfillment to a sterile or celibate organism, insofar as that organism fails to actualize reproductive capacities that are central to its organic identity as such. From a more cosmological perspective, it would likewise be difficult in that such a childless organism fails to participate in the eternity of the divine.\(^\text{15}\)

\(^{12}\) See Chapter Two, page 55.

\(^{13}\) See *The Imperative of Responsibility*, 71.


\(^{15}\) Cosmological here refers to addressing the organism from the perspective of the basic principles of the cosmos, e.g., the Prime Mover, which is the most divine being in the universe according to Aristotle. Viewed in this manner, the organism is oriented toward imitating the divine by producing offspring and hence follows, as much as possible, the full actuality of a primary principle of the cosmos.
(If even rocks move towards that participation, then likewise should organisms.) Yet as we noted above, Jonas does not see any such difficulty: the sterile or celibate organism, insofar as it lives in a healthy, fully functional way, could easily be fulfilled. For Jonas, it seems that the organism’s primary orientation is directed towards its own individual survival and flourishing. That state of flourishing, rooted in the selfish desires of the organism, does not require the presence or flourishing of other organisms such as children. In short, Jonas does not share Aristotle’s sense of organic teleology being directed necessarily towards reproduction. For Jonas, an organism achieves its telos in, by, and for itself. Its end lies within it, rather than involving entities outside itself, as is the case for reproductive organisms. Thus, Jonas’s thought on teleology appears lacking in a fundamental respect, all the more so given his normal agreement with and expansion upon Aristotle’s thought.

_Dasein, Nihilism, and Self-Enclosed Teleology_

It is worthwhile noting another important aspect of Jonas’s failure to address the teleology of reproduction, and, by extension, his failure to address the end-directedness of organisms toward other beings of their kind. That is, Jonas’s apparent failure to address the seemingly obvious case of reproduction indicates a further defect in his thought on teleology: the failure to address how living things may be teleologically oriented toward sociality in general. As we recall, Jonas critiqued Heidegger for locating the nexus of value only in the individual Dasein in such a way as to undermine the worth of the reality beyond Dasein, a position that also allows for a dangerous nihilism.\(^\text{16}\) Jonas’s response was to analyze how organisms, as such, were valuing beings, similar to the manner in which Dasein was. In fact, for Jonas, this “existential

\(^{16}\) See Chapter One, pages 28-38 of this dissertation for a further discussion on how Heidegger’s thought on Dasein could lead to nihilism.
interpretation of biological facts” led ultimately to the realization that Life itself, above and beyond Dasein, had a value in itself and was good per se, thus overcoming Heidegger’s nihilism. Most important for our consideration is the fact that Jonas, as we saw, employs a robust sense of teleology in order to help establish this “ontology of value.” In this manner, Jonas’s teleology fits into his larger project of critiquing and overcoming the nihilism of Heidegger’s thought. One, therefore, would expect that Jonas’s philosophy of teleology would move clearly away from Heidegger’s isolated and self-referential Dasein, whose enclosed experience of value led to the aforesaid nihilism. If, as Jonas says, Dasein is paradigmatic of Being for Heidegger and is self-enclosed and the ultimate locus of value, then ought not Jonas, in order to move beyond Heidegger, present ontologically paradigmatic beings whose metaphysical structure is social and communal? In which case, should not organic teleology, as fundamental to Jonas’s ontology, be characterized as self-transcendent? Otherwise Jonas’s ontology would seem to be rooted in the same self-referentiality and self-enclosure that so plagued Heidegger.

Nonetheless, as we have just seen, Jonas presents organisms similar to the manner in which Heidegger presents Dasein: isolated, self-centered individuals whose primary focus is their own existence. For both thinkers, an individual’s resolute response to the possibility death, done by and for itself, is integral to its existence. Thus, the organism, for Jonas, values those things that serve its own telos of self-survival, similar to how Dasein encounters value only in that which serves its individual life-project. The teleological structure of the organism is seemingly self-enclosed for Jonas. In which case, insofar as this teleological structure is fundamental to organisms, who are themselves emblematic of Jonas’s ontology, then Jonas’s

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17 See Part IV of Chapter One of this dissertation.
18 “At all events, the teleological structure and behavior of the organism is not just an alternative choice of description; [rather,] there is no organism without teleology.” The Phenomenon of Life, 91.
19 Recall page 64 of Chapter One of this dissertation: “Jonas sees Life as the paradigm of Being.”
ontology bears a noticeable resemblance to Heidegger’s. With both teacher and erstwhile student we see a similar pattern: Being is self-referential and selfish at its core. To be means to care, primarily for oneself and only secondarily, if at all, for others, even one’s offspring. Jonas may well want to present an ontology that can undergird a deep acknowledgement of, respect for, and response to objective value in reality, yet his resultant ontology likewise contains germs of its own destruction.

To see more clearly why this is so, we recall that Jonas’s thought often centers around his interlocution with an imagined nihilist, a fact Lawrence Vogel makes explicit in his presentation of Jonas. This nihilist could here turn to Jonas and state: “your supposedly nihilism-overcoming ontology indicates that my being is fundamentally self-referential. My being is structured ultimately according to my own needs, a fact made plain by the self-enclosed nature of my teleology. At the core of my being, what would really lead me beyond myself, would lead me towards honoring and fostering the value outside myself; why should I bother at all with such value, if essentially I am selfish?” That is, Jonas’s ontology appears just as self-enclosed as Heidegger’s and in this way perhaps unable to overcome Heidegger’s nihilism.

Summary and Transition

In short, Jonas’s organic teleology, connected to his overall ontology, calls for further explanation. For Jonas to answer this nihilistic critique, it would be helpful for him to be able to offer nuances to his sense of teleology (and so to his ontology). He should be able to show that

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20 Jonas admits as much to Leon Kass, stating that The Phenomenon of Life was penned while Jonas was under the sway of Heidegger’s thought. Leon Kass, “Appreciating The Phenomenon of Life,” 11. Likewise, Lawrence Vogel examines this Heideggerian thinking in Jonas’s oversight of the importance of reproduction and sociality for organic existence. Lawrence Vogel, “Hans Jonas’s Exodus,” 37.

21 Recall our earlier discussion on how, for organisms in Jonas’s ontology, concern for one’s “brood” is secondary to one’s selfish needs.

22 See also Lawrence Vogel “Does Ethics Need a Metaphysical Grounding?”
organisms are directed towards ends beyond their own selves and their own needs. He should be able to allow for organic teleology that is fundamentally self-transcendent and other-referential, insofar as he wishes his entire ontology to clarify the real presence of value and the need to respond properly to it. And since reproduction stands, in the history of the philosophy of teleology, as the paradigm case of such selfless goal-directedness, we face the same issue noted above: how, if at all, does reproduction fit into Jonas’s thought, especially his philosophy of teleology?

Thus, our next task is to see if and how Jonas’s thought on organic teleology can allow for a teleology of reproduction. We will examine various aspects of Jonas’s thought to see if it implicitly contains concepts germane to the teleology of reproduction. We will try to draw out from Jonas’s work a sense of what he could say about such reproduction and teleology.

Part II: Filling in the Gaps in Jonas’s Thought

*Jonas on Parental Responsibility*

The proper place to begin this discussion on Jonas is his analysis on parental responsibility. Jonas brings up this analysis as a tool for clarifying the greater human responsibility to the continued existence of the natural world and the human species.24

To start, Jonas contrasts parental responsibility with what he calls a “horizontal” responsibility.25 With horizontal responsibility, we see, for instance, soldiers in arms, co-equal

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23 “Other-referential” is mere shorthand for actions or modes of being that are oriented towards the flourishing of others beyond oneself.
24 See *The Imperative of Responsibility*, 90-108.
25 Ibid., 94.
with each other, who are likewise responsible for each other, to the extent of aiding each other in performing their mission. The responsibility is not total and is relative to the situation of the mature agents, all of whom are essentially self-responsible. This is a group of ultimately independent adults who are not completely bound to care for or protect each other. Likewise, the sense of responsibility is reciprocal. Soldier A looks out for B, who does the same for him. Neither party is the primary agent or patient of the responsibility, but both share equally in it. Said more colloquially, the responsibility here is a two-way street. On the other hand, parental responsibility is “vertical.” The responsibility lies “totally” with the parent and is total for him in his relationship to the child: he is completely bound to the welfare of his children. And such responsibility cannot “allow itself vacation or pause, for the life of the object continues without intermission.” The parent, as such, is thus obligated to provide love, support, nourishment, kindness, etc. to the child without necessarily receiving back in kind from him. The child stands as needy before the parent who is obligated to address such needs. Should these needs be unmet for the child, the parent would shoulder the entire blame. Such responsibility is a one-way street, originating in and exercised solely by the parent. The parent, as such, is bound to be bonded with his progeny, bound in every sense of that term, natural or moral.

26 Ibid.
27 Ibid.
28 Ibid., 95 and 101.
29 Ibid., 105.
30 Ibid., 94: in the parent-child relation, there is a “non-reciprocal relation of responsibility.” This is not to refute the idea that children also have a responsibility to their parents, especially as the parents become elderly. However, in the initial stages of parenthood, the parent is the one with all the responsibility; the child will not assume responsibility until much later. Hence, Jonas seems to be addressing parenthood in such early stages, especially the sort of care required from the parents toward their children. A newborn, a five year old, or even a ten year old child are not called to be responsible for their parents and indeed for themselves. In that regard, the responsibility is—to reiterate what was said above—one way.
31 Ibid., 94-95. Parental, “natural responsibility . . . claims its agent apriori and quite unilaterally.” Similarly, there is an “ought-to-be” of the child, to which the parent is ethically obligated to respond.
We can examine this situation in more detail by looking at the twin issues of awareness and action. The primary awareness of a responsible parent is not—and indeed cannot be—self-centered. If it were, the parent would likely be neglecting her primary responsibility of caring for her child. In encountering a situation, the awareness of “what’s in it for me” shifts to an awareness of “what’s in it for the child.” To take a mundane but telling example, borrowed from my aunt: when grocery shopping, the parent becomes habitually aware of what food is best for her children. She sees the food more in terms of how it relates to her children than to her alone. The significance of what she is aware of lies in its significance for her children as well as herself. In this manner, the parent’s awareness of a significance-laden environment is structured according to the needs and desires of her children, in addition to her own needs and desires.

Parental actions based on this significance awareness likewise address the needs and desires of the children. The parent does not purchase types of food only because they are easily accessible or beneficial or enjoyable for her. She purchases the types of food that best serve the needs of her children. Indeed, some such purchases may prize health over taste, much to the temporary displeasure of the children and consequent possible stress to the parent. Nonetheless, since the primary aim of such food is the overall well-being of the child, the parent buys it, disregarding such stress and displeasure. Her actions, arising from responsible awareness, are therefore other-directed, i.e., toward the health of her children. The main (or even sole) object of these actions is the child’s flourishing. The fact that such actions are potentially stressful,

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32 Action and awareness are especially relevant for Jonas’s philosophy of life. As Leon Kass explains, in his articulation of Jonas, action and awareness are two of the basic functions that constitute organic existence. See Leon Kass, *The Hungry Soul*, 45-51. Hence, insofar as we are looking at Jonas’s thought as allowing for a Kassian sense of the teleology of reproduction, I think it appropriate to see how the awareness and actions of responsible parenthood, as understood by Jonas, could support such an allowance.

33 Jonas says such awareness is connected with a “seeing, personal love”: *The Imperative of Responsibility*, 103.

34 For further reflections on awareness of things as significant, see pages 162-164 in Chapter Three of this dissertation.

unenjoyable, or mundane for the parent is of secondary importance, insofar as the performance of such actions is central to being a responsible parent. In sum, the awareness and activity of the responsible parent is directed primarily towards the well-being of her child.

Nevertheless, there is also the issue of procreation, as tied to responsibility, which we need to address. Based on what we said above, one could be tempted to think that Jonas analyzes parental responsibility in a narrow fashion, disregarding the biological components—sexed parents, mating, copulation, and childbirth—that are requisite for parental responsibility in the first place. (After all, we recall Kass’s insightful critique of how sex and reproduction do not figure in *The Phenomenon of Life.*) Viewed thus, the analysis pertains as much to the celibate monk raising an abandoned orphan as it does to natural, biological parenthood. In other words, does Jonas care at all about the process of becoming a parent or is he concerned solely with the exercise of responsible parenthood once children have arrived? Does organic reproduction as such enter into his analysis?

In brief, the answer to the last question is affirmative: Jonas sees responsible parenthood as linked essentially to biological-natural parenthood. “The biological facts of procreation” serve as the foundation for the “basically one-sided responsibility in general; and its constantly demanding sphere of action is the original site of its practice.”

For Jonas, the naturally primary responsibility of parents for children is rooted in the sexual, reproductive activities of two, sexed, sexually distinct, organisms. Parenthood, and its attendant and total set of responsibilities, begins with procreation. Indeed, Jonas goes so far as to call procreation “the unilateral and absolute causation of existence, wherein alone, without further supplements, the obligation as well as the qualification for the parental role is grounded.”

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36 *The Imperative of Responsibility*, 39.
37 Ibid., 105.
something tacitly assumed in the act of procreation and something brought to full articulation with the consequent birth of the child. Hence, he offers a comprehensive view of how human reproduction, grounded in the biological-natural facets of human sexuality, involves the exercise of responsible parenthood.

We now can wrap up our discussion on Jonas’s analysis of parental responsibility. For Jonas, the parent, in her being-responsible, acts directly for the safety and well-being of her child, so as to enable the proper, full, and free development of the child. Her exercise of said responsibility often involves self-sacrifice and selflessness. Finally, hers is what we could call a twofold mode of being-responsible: i.e. it consists in both more immediate action for the child (buying food for babies for instance) and more mediate action (letting her teenager acquire and use his driver’s license for instance). In both cases, the action tends ultimately towards the betterment of the child.

**Teleological Implications of Jonas’s Views on Parental Responsibility**

Our next task will be to make explicit an idea implied in the prior discussion: for Jonas, the responsible parent employs a teleological set of actions geared beyond herself and directed toward her child. The behaviors are done not for her sake but for the sake of her child. Her role as parent aims at the goal of the completion of her children. Consider the following quotations from Jonas: (A), “the highest fulfillment” of such responsibility “is its abdication before the right of the never-anticipated which emerges as the outcome of its care,” and (B), “parental responsibility has maturity [of the child] as its goal.” With quotation A, we see that responsible

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38 Ibid., 106: “the individual becoming of the child” and his gaining of “his identity” are central facets of parental responsibility.
39 Ibid., 107.
40 Ibid., 108.
parenthood is oriented toward the fully exercised freedom of the child. Put in terms that are more organic: the parent “tends” the child so he can “blossom” in ways unimaginable to the parent. Authentic flourishing is that for the sake of which the parent acts as she does. With quotation B, we see a caveat to A: the end-state of parenthood is not merely authenticity or freedom but also maturity. In other words, for Jonas, the point of parenthood is not just letting the child be in any manner whatsoever but fostering in the child a mature exercise of his freedom. The blossom ought to be a “grown-up” blossom. Thus, the ultimate perfection of responsible parenthood—that basic and all-inclusive mode of being for human parents as such—lies in the particular fulfillment of the child. The end-state of parenthood does not lie internally but externally, found in the perfection of the child.

Of course, like any teleological action, parental care can be measured according to success or failure, albeit differently than can other such end-directed actions. The end-directed activity of a squirrel attempting to gather nuts can be seen as a failure insofar as the squirrel, after hours of so trying, does not collect many edible nuts. There is no corresponding way to quantify the status of a child and his well-being, as to then indicate the concurrent success or failure of the parent. Likewise, too, the issues of free will and self-agency, possessed by all persons, even children, muddle this attempt to ascribe failure or success to parents based on the behaviors and lives of their children. However, Jonas, as we just saw, is clear that the parent has a responsibility to form properly the child’s ability to exercise well (i.e., in a mature fashion) his freedom, his “own, autonomous causality.” Thus, insofar as a parent fails “to enable” and “to prepare” such proper use of freedom and autonomy, he fails also to foster the child’s

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41 Ibid., 107: the exact effects of parental behavior are “beyond . . . prescience, not only because of the unknown numbers of unknowns in the equation of objective circumstance, but ultimately because of the spontaneity or freedom of the life in question,” i.e., the life of the child.
42 Ibid.
attendant exercise of responsibility.\textsuperscript{43} The behavior of the child, be it moral or immoral, reflects, in some way, whether the responsible parent has “performed [her] task well or poorly.”\textsuperscript{44}

Consider the lines in the film, \textit{Gladiator}, spoken by Marcus Aurelius to his son Commodus:

“your faults as a son are my failures as a father.”\textsuperscript{45} This is merely to say that the mode of being a responsible parent is constituted as being directed outwardly toward the end-state of the flourishing of the child and can be judged, at least in some respects, corresponding to the realization or non-realization of that goal. (I say in some respects because obviously a child who fails to grow into mature adulthood and whose life is far from flourishing is also himself responsible for his state; the parent is not the only responsible for this outcome.)

Human teleology is in this respect “self-transcending” and communal.\textsuperscript{46} It brings one outside of himself and into close relation with the Other. The close relation, this bond of family, becomes a central constituent of the structure of the existence of the parent. The parent experiences a deep “emotional identification with the whole” of her family.\textsuperscript{47} This “felt solidarity” fundamentally reorients her mode of being in the world.\textsuperscript{48} Her world is now organized, in a profound way, by her responsible and self-giving relationships to her children. Qua responsible parent, she is teleologically oriented towards the needs and happiness of her children. The basic orientation towards self-centered needs and happiness is coupled with an other-referential teleology, rooted in and fostering of communal existence, in this case the communal existence of the family.

\textsuperscript{43} Ibid.
\textsuperscript{44} Ibid., 108.
\textsuperscript{45} \textit{Gladiator}, directed by Ridley Scott (2000; Universal City, CA: Universal Pictures, 2000), DVD.
\textsuperscript{46} The Imperative of Responsibility, 107.
\textsuperscript{47} Ibid., 104.
\textsuperscript{48} Ibid.
Here, it is worthwhile to pause and ask: how does this type of thinking in Jonas serve to render him more akin to Aristotle and other philosophers of the teleology of reproduction? Granted, unlike Aristotle, Jonas is not talking about a parent’s participation in the divine. Nor, like Aristotle and contemporary theorists, does he offer an in-depth discussion on teleology of the sexual faculties and functions (though, as we saw above, he does make brief mention of it). Furthermore, he is not talking directly, as did Kant, about the species itself as the recipient of the teleological action (although there are hints of this in his analysis of the responsibility owed to future humans). Nor is he talking about the desire for the continuation of the species or gene replication as is often done in evolutionary theory’s explanation of organic teleology. In short, any similarity between Jonas and these other thinkers on the teleology of reproduction is not comprehensive. Nonetheless, we still see an important agreement, primarily in the fact that for Jonas, the responsible parent manifests an extrinsic goal-directionality, much the same way that sexed, mating organism for Aristotle and contemporary theorists, or even the tree for Kant, were oriented beyond themselves because of their reproductive faculties and activities. After all, as we saw above, Jonas positions responsible parenthood as being grounded in natural-biological parenthood. Thus, the following logical sequence is at work here for Jonas: if the processes primarily constitutive of parenthood—reproductive processes such as, mating, copulation, pregnancy, and childbirth—tend naturally toward the exercise of responsible parenthood, and responsible parenthood, as we just discussed, tends toward the well-being of the children, then reproductive processes themselves tend toward the well-being of children. In other words, altruistic concern among humans finds its foundation in the multifaceted process of reproduction.

49 See The Imperative of Responsibility, 39, where Jonas talks about the “continuance of procreation into provision and care.”
and naturally consequent responsible parenthood.\textsuperscript{50} Insofar as his sense of organic teleology includes the phenomenon of reproduction, Jonas stands properly in the traditional assertion that organic teleology naturally includes a self-transcendent directionality.

We can further articulate this idea by bringing in Leon Kass’s examination of reproduction. Kass sees reproduction as being rooted in sexual desire. Such a desire tends toward a goal beyond mere survival or individual flourishing. Instead, “the true goal of this [sexual] desire, invisible to the participants,” is the begetting of and care for offspring. \textsuperscript{51} In fact, such offspring, even though they continue on the species of their parents, likewise replace their parents. As such, the desire orients not only towards self-transcendence but also self-abnegation, at least to some degree.\textsuperscript{52} In any case, the true \textit{telos} of sexual desire lies outside the individual, achieved initially in its mate but realized ultimately in its progeny and their health and well-being.\textsuperscript{53} This sort of organic teleology is rooted in and fosters sociality, both of sexual pairing and familial bonds. A teleological organism, qua “passionate,” is directed towards others, most notably because of his outward turning, sexual desire.\textsuperscript{54} Sexual organisms and their sexual activity aim at sociality and self-transcendence. All of which expand on Jonas’s own claims. “Without this fact [of reproduction] and the sexual relation we could understand neither the arising of farsighted providence nor of the selfless care among rational beings.”\textsuperscript{55} Nature, by rendering us sexual, reproductive organisms, has allowed us to thus grasp the basic “archetype of all responsible,” and therefore self-transcendent, action.\textsuperscript{56}

\textsuperscript{50} Ibid.
\textsuperscript{51} Kass, “Appreciating the Phenomenon of Life,” 11.
\textsuperscript{52} Ibid.
\textsuperscript{53} Ibid.
\textsuperscript{54} Ibid.
\textsuperscript{55} The Imperative of Responsibility, 39. (Emphasis mine)
\textsuperscript{56} Ibid.
Consequently, we have seen that Jonas examines the naturalness of parental responsibility and how it is rooted in organic sexuality and parenthood. We have also seen that such responsibility involves an extrinsic teleological orientation outside of oneself and towards the Other. Hence, we see here an implicit element in Jonas’s thought allowing for a teleology of organic reproduction that demonstrates the attendant sociality, non-self-enclosed structure of organic existence. Since parental responsibility is a “class of fully selfless behavior supplied by nature,” the teleology employed therein is precisely the sort of other-referential teleology we hope to find in Jonas’s philosophy to differentiate his thought further from the self-referential existence of Dasein.\(^57\) When we include responsible parenthood within Jonas’s ontology, we see that parents, as such, exist as fundamentally, “totally,”\(^58\) and “uncontradictably”\(^59\) responsible to their progeny. The natural mode of parenthood and its concurrent responsibility, especially as exercised in the other-referential actions of parents, show a profoundly other-oriented structure in human teleology and thus also in human existence.

“Responsible” Parenthood and its Teleology in the Organic Community

Nonetheless, we have been so far examining human parenthood and its attendant teleology. Now, we should expand this discussion to include all organisms. Do they also exhibit, in their reproduction and parenthood, an other-referential teleology?

Before trying to answer this question, we need to make the following qualifications. First, as we discussed in the last chapter, responsibility is essentially a moral category, one germane to humans alone.\(^60\) A mama grizzly that abandons her young does not commit a morally

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57 Ibid., 39.
58 Ibid., 134
59 Ibid., 131.
60 See Chapter Three, pages 226-229.
bad act, precisely because she is not under the moral duty of exercising responsibility for her children, as is the case for human parents. Any talk of “responsible parenthood” in non-human organisms is merely analogous at best. Secondly, and more importantly, since responsibility is not our main focus in this chapter but rather the teleology of reproduction is, we are most concerned with seeing if the reproductive activities of non-human organisms demonstrate the type of self-transcendence and sociality found in human reproduction. After all, a driving issue of this chapter is seeing whether Jonas’s thought allows for the possibility that organic nature fundamentally includes a self-transcendent teleology. We wish to see if Jonas presents, through his understanding of parental responsibility, a vision of life that moves beyond the self-enclosed (and thus nihilistic-tending) existence of Dasein. Hence, our task here is to see if Jonas’s philosophy of teleology offers any discussion on the reproduction and sociality of non-human organisms, similar to how his thought indicated a teleology of reproduction and sociality for human organisms.

We will address two main questions here: (A) what, in brief, does non-human parenthood look like according to Jonas, and (B) how does teleology, especially as potentially self-transcendent, pertain to such non-human parenthood?

The first thing to note, in regard to (A), is the point raised previously: Jonas offers little or no explicit discussion on the parenthood of non-human organisms. However, implicitly, his thought contains some concepts pertinent to our discussion. We recall Jonas’s multiple references in *The Imperative of Responsibility* to the “naturalness” of parenthood and to the responsibility consequent to parenthood.61 Granted, one could argue that “nature” as used here refers not to nature in general but solely to human nature. Hence, one could argue that the

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61 By my count, there are at least twelve such references, some of which are quoted in this chapter.
responsible parenthood, for Jonas, is natural, only in that it is natural for humans to do so, given the previously mentioned particularity of responsibility to humanity. Nevertheless, this position is not very tenable. After all, as Jonas readily acknowledges, features like moral freedom, artistic imagining, and abstract, philosophical rationality, although unique to humanity, nonetheless still arise from and connect back to the larger organic community.  

Jonas’s whole philosophy insists on a non-dualistic, more monistic presentation of reality, such that capacities specific to man find their ultimate origin and some real analogue in the wider scope of life. Thus, the particularity of responsibility to humanity cannot arise totally from human nature, considered as such, since human nature, and features specific to it, exist within a larger framework of organic nature. The mode of being of a human parent, even with its uniquely human set of responsibilities, finds some analogue and precursor in the larger organic community in general.

One salient, preceding analogue is maternal care. As Jonas points out, there is a “postpartural ‘blindly’ compulsive feeling of the mammal mother for the newborn as such.”  

The mammal mother, human or otherwise, thus experiences an immediate and overwhelming drive of care for her new offspring. She is not merely a progenitor but more accurately a parent, in virtue of this bonding feeling of affection. The drive towards parental “love,” activated by the circumstance of this birth, directs the mother-animal towards an affectionate and protective bond with her offspring.  

To speak in more Hiedeggerian terms, as Jonas himself often does about organisms: the parent animal is now a being-with-her child. In short, for Jonas the non-human

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62 For a discussion on Jonas’ s presentation of the uniqueness of certain features in humanity, see Chapter Three, pages 218-239. For a discussion on how such features relate back to the larger organic community, see, for instance, pages 157-165 of Chapter Three.

63 The Imperative of Responsibility, 103.

64 Ibid.
organisms naturally exercise parenthood in a manner similar to the human performance of the same.

Now, we want to see how teleology, point (B) from above, plays out in this presentation. Jonas himself discusses the example of how a bird parent builds homes from twigs, homes that her children can use. The bird-parent’s action is not self-enclosed but rather provides shelter for her children. The basic needs of her children are at stake here: sufficient shelter for them to dwell in until such time as they abandon the nest and live on their own. The twigs she sees, retrieves, and employs are significant for her precisely because they are beneficial for her children’s safety. Consequently, her resultant action based on such awareness is geared toward benefitting her children who can be protected and nourished because of such actions. Like humans, animal parents, in their awareness and consequent action, are directed towards the well-being of their offspring. The mother bird’s behavior is not self-enclosed but necessarily involves her going beyond herself for the sake of her children. The animal exercise of parental care, though lacking the moral tenor and freely chosen love of human parenthood, nonetheless still involves an other-referential goal-directedness performed for the sake of the offspring.

Consequently, we may even have some way of discussing the issue of “parental responsibility” in plants. Obviously, the term does not really apply to plants. In fact, the entire notion of parenthood does not pertain readily to non-animal organisms. However, insofar as Jonas allows for grades of “mined” consciousness, freedom, and selfhood in plants, and insofar as Jonas contends that human characteristics are prefigured in all forms of life, including

65 Ibid., 59.
66 Recall our discussion from Chapter Three, pages 174-178 on how plants are included in Jonas’s “existential interpretation of biological facts.”
plants⁶⁷, then something somehow akin to “parenthood” may obtain for plant existence. After all, fruit-bearing plants deposit their seed, although that fruit may never take root in the soil or develop into a plant. They have parts and activities directed towards reproduction. As it reproduces, the plant fulfills the orientation of its parts and functions, since the actual begetting of offspring fulfills the plant’s capacity for reproduction. In fact, Theresa Morris posits that the plant organism is fulfilled when it is capable of and actually performs reproduction.⁶⁸ Thus, on Morris’s reading of Jonas, we see how his thought allows even for plants, qua reproductive, to have a natural orientation towards beings outside themselves, i.e., offspring.⁶⁹

Such, in brief, is a presentation of the topic of reproduction in Jonas’s thought on non-human organisms. Of course, as we noted earlier, Jonas’s work explicitly on the philosophy of life fail to address the reproductive features of organisms. That fact still stands and still represents a large oversight on the part of Jonas. However, as we have seen, Jonas’s discussion on parental responsibility offers a set of ideas on organic reproduction and the teleology involved therein. Thus, this more careful reading of Jonas, while still acknowledging the explicit lacuna, demonstrates how his thought allows for a view of organic teleology and existence as other-directed and not self-enclosed. The selfless structure of human parenthood and reproductive teleology is prefigured, albeit gradationally, in the larger organic community. Organic nature, for Jonas, presents a common instance—i.e. reproduction—of self-transcendent, goal-directedness.

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⁶⁷ See, Mortality and Morality, 60: “The great contradictions that man discovers in himself—freedom and necessity, autonomy and dependence, ego and world, connectedness and isolation, creativity and morality—are present in nuce in life’s most primitive forms.”

⁶⁸ Hans Jonas’s Ethic of Responsibility, 73.

⁶⁹ This is, of course, a large extension of Jonas’s explicit thought and perhaps even a large extension of the ideas implicit in his work. Here, the failure of Jonas to address directly the phenomenon of reproduction becomes most problematic, insofar as there are few discussions of plant life in Jonas’s work that could lend themselves towards drawing out a Jonasian sense of the reproductive teleology of plants. We will revisit this issue in Chapter Six when we perform a critical analysis of his thought.
Before closing this section, I want to clarify a potentially ambiguous point: responsibility and self-transcendent teleology, though related, are not identical in Jonas’s thought. Having an end beyond itself does not imply that an organism is responsible for that end; salmon that die soon after depositing roe are not responsible for their offspring, although such parent salmon have acted for the sake of such offspring existing. Likewise, Jonas does not really address our human responsibility to the natural world and the continued existence of mankind in directly teleological terms (although one perhaps can do so). Such responsibility, in fact, could be construed as an apriori condition of our being human.

Re-assessment of Jonas’s Problematic Positions

With this point established of the set of ideas in Jonas’s thought concerning a strong sense of the teleology of reproduction and its attendant self-transcendent structure, we now need to re-address Jonas’s positions, mentioned at the start of this chapter, that either disregard or contradict this other-referential teleology. First, we saw Jonas’s oversight in The Phenomenon of Life concerning the topic of reproduction. That lacuna, i.e., Jonas’s failure to examine reproduction as a central feature of organic existence, still obtains, of course, but we should note that is was something Jonas himself later acknowledged and wished to correct were he to revise that work.70 We should not take the lacuna on reproduction in The Phenomenon of Life as demonstrative of all of Jonas’s thinking on reproduction and the teleology of reproduction.

Second, Jonas’s ideas concerning contraception and overpopulation do not, I think, oppose his ideas on responsible parenthood (that is, Jonas’s idea that “the Pope’s stand on birth control . . . is a crime against global responsibility.”71) Since his main concern here is the

70 “Appreciating the Phenomenon of Life,” 11.
71 “Closer to the Bitter End,” 27.
exercise of responsibility towards the natural world and the future existence of humanity, he
deems it problematic to beget too many children, to endanger the amount of resources available
for future humanity. In this regard, he is arguing that one, in becoming a parent, ought to show
responsibility for the proper care for the natural world and future existence of humanity. Nor, is
he promoting abortion, an action directly counter to the exercise of responsible parenthood and
the obligations assumed by the parents in virtue of the copulative act. In which case, he still
seems able to talk about the care for children as essential, albeit now understood in light of the
possibility that the very existence of mankind’s future may be at stake.72

Third, we need to re-examine his statements indicating the primacy of self-referential
teleology for the organism: “Any simultaneous serving of the ends of other beings, even of its
own brood, is only coincidentally and by way of genetic disposition included in the pursuit of its
own: the vital ends are selfish from the viewpoint of the subject.” What now are we to make of
this contention? First, it is clear that this statement differs greatly from Jonas’s other positions on
responsible parenthood. After all, the language of “brood” employed above contrasts starkly with
the parental, familial language employed to describe being a responsible parent. A parent has and

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72 Granted, a couple using contraception may be altering the structure of the sexual act by precluding the natural end
of fecundity from being achieved. In that Jonas, as we saw, speaks of sex as oriented towards offspring, his
advocacy of contraception may contradict his understanding of the natural structure of sex and reproduction. Such
advocacy does pose problems for him, insofar as he also posits sex as being directed naturally towards responsible
parenthood, and, of course, contraception directly impedes that tendency. This, I think, is a legitimate criticism of
Jonas.

One way around it is to say that Jonas sees the future existence of man as so tenuous that he allows for the
use of contraception. Jonas defends the morality of contraception in relation to his larger discussions on the
potentially imperiled existence of humanity. (Jonas, that is, does not write about birth control because of
reproductive rights or women’s rights). Against that backdrop, an action counter to the contours of nature, such as
contracepted intercourse, could be circumstantially justifiable, without implying that such actions are normally
appropriate. One may permit them here, because they help negate a horrible alternative, i.e., the possible destruction
of future human life. If so, Jonas’s support for contraception does not negate his other contention that persons, in
copulating with each other, are called to assume a responsibility, tacitly and by nature (nature understood broadly),
the exercise of which necessarily involves an other-referential teleology. Granted, Jonas could be seen as hyperbolic,
much too worried about the possibility of humanity’s destruction. But such flawed reasoning in this instance does
not serve to undermine his concepts on reproduction and responsible parenthood.
loves children; a brood is often the offspring of a deadbeat dad. That being said, however, there still may be some point of reconciliation between the two positions. The quotation above describes “vital ends”: food, water, shelter, safety, etc. By nature, all organisms are innately oriented towards the pursuit and achievement of such ends (as we discussed at length in the last chapter). Thus, when a mother bird finds and feeds herself a worm, as she is naturally wont to do, that activity primarily serves her own interest and survival; only secondarily does it affect her offspring, in that the nutrition strengthens the mother and better allows her to perform her maternal functions. However, such an analysis does not demonstrate any state of bad motherhood on the part of the bird. Merely because she is directed toward and acts to achieve self-referential ends does not negate or undercut her maternal status and the proper exercise of that role. Hence, to say “that worm is for the mother” does not imply that there are no other worms, retrieved by the mother, that are for her offspring, a fact that Jonas himself points out (as we discussed before). In short, the parent seeks both vital ends for herself and seeks out the survival and health of her children.

Yet, I hesitate to say there can be a total reconciliation. The statements about “genetic disposition” and “coincidentally”—for “the living being . . . any simultaneous serving of the ends of other beings, even of its own brood, is only coincidentally and by way of genetic disposition included in the pursuit of its own.”—indicate that in this instance, Jonas fails to account for the manner in which parenthood, in a fundamental way, motivates one beyond self-referential awareness and activity toward a more other-referential mode of activity and awareness. After all, it is not “coincidence” that a mother provides shelter and nourishment for her child; it is precisely her intention to do so, to go beyond herself and respond lovingly to the needs of her children. In other words, Jonas, in the above mentioned quotation, fails to
acknowledge what he himself will state clearly twenty pages later: organisms, in their performance of responsible parenthood, are structured by an other-referential teleology. The responsible parent, as such, is an example of natural other-directedness, not coincidental other-directedness. In short, then, the two positions of Jonas’s are not completely at odds, but nor can there be a total reconciliation between them.

The ideas in Jonas’s philosophy that show support for the notion of self-transcendent teleology in organisms cannot erase the isolated references in his work to the contrary. Thus, though a careful reading of Jonas reveals that, in some ways, he endorses the notion of self-transcendent organic teleology, especially in reproduction, it is not a total endorsement. Hence, though we have seen that Jonas’s thought is certainly capable of accommodating a teleology of reproduction and other-referentiality, he is not entirely consistent on this point.

**Summary and Transition**

Thus, we see that Jonas’s thought on teleology includes the phenomenon of reproduction. Consequently, we also see that Jonas’s sense of teleology involves an exterior directionality, in which the goals pursued do not always lie within the agent. In the case of reproduction, the end sought by organisms is, as we have seen, the generation and maturation of new members of their kind. In this way, the end is extrinsic to the individual organism but internal to its species.

Nonetheless, for thinkers such as Aristotle and Kant, extrinsic teleology did not merely obtain in the case of reproduction and the perpetuation of one’s species. Rather, in their minds, organisms were oriented towards some goal(s) extrinsic even to their kind. In fact, such extrinsic teleology includes inanimate things, so that the entirety of the natural world, organic and non-
organic, manifests some degree of purposefulness towards ends extrinsic to them. Extrinsic final causality, in this respect, is a central feature of the universe.

But does Jonas’s philosophy endorse such a view of extrinsic teleology? Our next task, therefore, is to investigate if and how Jonas’s thought on teleology includes such an understanding of extrinsic teleology. In particular, we will look at Jonas’s thinking on evolution and cosmological development, attempting to grasp if Jonas sees these phenomena as manifesting an orientation towards some final, extrinsic end. Doing so will enable us to complete our investigation into the types of teleology in the thought of Hans Jonas.
Chapter 5
The Teleology of Cosmological Development and Evolution

Now that we have seen how Jonas’s thought allows for the ideas of the teleology of reproduction, our next task is to see how, if at all, he addresses a larger issue of global teleology: are the universe and Life, especially in their genesis and development, goal-directed? In Jonas’s thought, are there some goals, external to both the individual organism and its species, for the sake of which things, especially living things, evolve? Our current task is to see if and how Jonas addresses such questions of external teleology.

One preliminary remark concerns the distinction between evolution and cosmological development. To start, we should note that Jonas himself never draws such an explicit distinction. However, there are noticeable differences in emphasis between his discussions on evolution and his discussions on cosmological development. For example, in his essay on “Mind, Matter, and Creation” Jonas is clearly addressing the origins of the universe and the tendency of matter toward Life, mindedness, and purposiveness. In other parts of his work, however, Jonas looks at the development of living things as such and pays little or no attention to pre-organic processes. Furthermore, the term evolution contains an almost ubiquitous reference to the processes of generation and alteration for Life, especially on the level of species. Pursuant to Darwin, evolution is taken as the development, over millions of years, of various and new forms of Life from common organic ancestors. Jonas himself employs and analyzes evolution so understood. Therefore, because Jonas treats organic and pre-organic processes separately, and evolution is commonly taken as germane only to Life, we will employ the term, “evolution,” to refer to processes involving organisms and the term, “cosmological development,” will be used to refer to pre-organic processes.
Nonetheless even with this terminological distinction in place\(^1\), we also need to highlight, from the start, that Jonas does not conceive of evolution as entirely separate from cosmological development. Put better, evolution is a continuation of cosmological development, a further process within the expansion of the universe. As we shall see shortly, the cosmos, for Jonas, develops holistically; Life follows from, and is not alien to, the pre-organic universe. Hence, even though we will employ distinct terms and will have distinct discussions on cosmological development and evolution, we need always to bear in mind the inherent connection between the two.

\(^1\) Jonas does not offer an in-depth examination of the manner in which pre-organic processes can give rise to the development of Life. He does not, for example, discuss how inorganic chemistry can give rise to organic chemistry. He does speculate that “the transition from inanimate to animate substance, the first feat of matter’s organizing for life, was actuated by a tendency in the depth of being toward the very modes of freedom [i.e., freedom of organic existence] to which this transition opened the gate.” (The Phenomenon of Life, 4) He also conjectures that “forming of organic macromolecules” may well have been the “fulfillment of a preceding tendency” in matter itself. (The Imperative of Responsibility, 74). But in the end, he still contends that the “mystery of [the] origins of life . . . is closed to us.” (The Phenomenon of Life, 3). In this regard, Jonas fails to address more precisely how it is that this tendency begins to be actualized in the “forming of organic macro-molecules.” He leaves unaddressed questions such as: Is this some sort of prototype of how living things enact their existence? What is the agent of such processes which lead into the formation of life?

Two further points are called for here. First, although we see Jonas’s failure to address directly such issues, we can also find in his thought other discussions which touch, perhaps more indirectly, on these topics. He does state that the difference “between free amino acids and the first cell,” is not as great as the difference “between the realm of material things in toto and that of subjectivity.” (The Imperative of Responsibility, 68) This may imply that for Jonas, such proteins are already prototypical of life in some way. This reminds me of the conjecture on the ur-cell: the first prototype of a cell, a “simpler, precursor chemical system,” from which living cells originated, a necessary starting point given the theory that cells only originate from other cells. (Mind in Life, 94) Might the amino acids be, for Jonas, some type of ur-cell or ur-organism as it were? Addressing that question in more detail lies beyond the scope of this dissertation, but it does point to possible set of ideas which may provide further complement and expansion to Jonas’s admittedly underdeveloped presentation on the transition from inorganic to organic chemistry.

Second, given the complexity of this transition from, for instance, inorganic to organic chemistry, why am I employing the aforesaid distinction between “cosmological development” and “evolution?” I do so because in Jonas’s thought there is an obvious distinction of emphasis between “evolution” and “cosmological development” This is not so much a metaphysical or scientific distinction but rather a distinction between Jonas’s more speculative thoughts on the origins and development of the material universe and it’s teleological development (as found primarily in the essay “Mind, Matter, and Creation”) on the one hand and his more systematic thoughts on the development of life, as found throughout the corpus of his work.
Part I: Cosmological Development

A preliminary qualification is in order before we proceed in discussing this sort of pre-organic, cosmological development. The word “development” is sometimes used in ways that imply already some goal or end towards which a process is moving. That is, when we talk about the development of A into B, we have in mind some state relative to which B is a perfection or improvement of A. When an acorn develops into a sapling, it develops insofar as the sapling is a more fulfilled condition relative to the flourishing, mature, healthy oak. In alterations that are not developments, A’s transition to B may be a regress or some sort of neutral change. But qua development, this transition indicates some end-state serving as the paradigm by which the transition qualifies as a development rather than a regress or neutral change. Such implications obtain, at least in some sense, with many uses of the term “development.” In which case, would not our use of the term already presuppose some end state that, ostensibly, we are trying to flesh out in Jonas’s thought rather than merely assert? Is our use of the term question begging? In response, we should bear in mind that “development” as used here is akin to the common use of “evolution.” The latter term need not—and in fact often does not—refer to any purposeful process but rather indicates the genesis and growth of specific features and species themselves in the organic community, i.e., the procession and expansion of Life in its various forms from common ancestry. An analogous genesis and expansion within the cosmos can, I think, be designated with the term, “development,” without necessarily implying this process is goal-directed. Such, at least, is our initial understanding and use of the term.
The first item to note is that Jonas posits that at the very beginning of the universe, there was likely some mind at work in its creation. “The creative cause of mind asleep must be mind awake. From potential mind we must infer actual mind.”\(^2\) Insofar as Nature, prior to humanity, possessed latently the capacity for human consciousness (with its veridical and even transcendent capacity for seeking knowledge), then the ultimate cause of Nature, which implanted in it such latent capacities, must have been a something (someone) fully minded. “The self-experience of mind, therefore, and especially its reaching out by thinking into the transcendent, leads us now to the postulate of a mental, thinking, transcendent, super-temporal, being at the origin of things.”\(^3\) Thus, for Jonas, an intelligent God operates at the very origin of the universe as its ultimate cause.

But how has God positioned nature such that some “tendency” exists in it toward the development of life?\(^4\) Jonas is quick to differentiate himself from any idea of a set plan for cosmogenesis, whereby God imprints a discernible and rigid blueprint into the universe and its development. For Jonas, it is not the case the Big Bang, for instance, contains the outline of God’s determinate plan for the origin and subsequent expansion of the universe.\(^5\) The universe and especially Life are not “mechanical automata.”\(^6\) Instead, subjectivity obtains in the nature of things, and this feature of subjectivity must be taken into account as we examine the origin and development of that same Nature.

\(^2\) Ibid., 181.
\(^3\) Ibid.
\(^4\) The Imperative of Responsibility, 74
\(^5\) Mortality and Morality, 166-168.
\(^6\) Ibid., 169.
Yet, “what does the fact of subjectivity contribute to the evidence of cosmology?” In short, this fact indicates two points pertinent to our discussion: (A) the non-rigid, more fluid structure of the genesis and development of matter and (B) the ascending of matter toward qualitatively new levels rather than the mere reconfiguration of it. We can address point (A) first. Here, we see that just as a subject, as such, is a free agent who is the creative locus of non-determinate activity in the world, so, too, is matter, for Jonas, “free” to develop into new and previously unknown forms.

However, we need to examine this notion of the “freedom” of matter some more. After all, Jonas also posits that freedom is an essential feature of Life, serving to distinguish Life from pre-organic matter. If so, then how can he talk about freedom obtaining in matter in cosmological development? The freedom Jonas mentions as essential to Life alone is the freedom from being identified with particular matter: pre-organic matter does not possess such freedom, while all organisms do. This state of not being tied to particular matter, of having an identity over and above such matter, moreover, ascends gradually into the animal freedom of motility and the human freedom of consciousness. Such is the freedom essential to Life. However, in the context of cosmological development, Jonas focuses on the freedom for novel kinds of material entities to arise, in ways, at places, and at times unforeseen. This is a basic level freedom of non-determination and little more. But it still, for Jonas, is an analogue of the organic freedom we have discussed throughout this dissertation.

There is no determinate blueprint for what sorts of things should arise necessarily in the universe, nor is there a determinate timetable for when such things should arise, nor is there a

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7 Ibid., 172.
8 See, for instance, The Phenomenon of Life, 3.
9 See Chapter One, pages 44-46 of this dissertation.
10 See The Phenomenon of Life, 3-4
determinate set of locations in which they should arise. The process is much more open-ended. Just as Jonas, in his criticism of genetic engineering, argues that, we ought to “respect the right of each human life to find its own way and be a surprise to itself,” so, too, does he consider the cosmos—albeit in an analogous manner—as able to “find its own way.”

In addition—and here we address point (B) from above—Jonas also rejects the idea of a total “indifference” in matter. From the start, matter, in its most basic form, therefore tends not merely toward new material patterns but also toward setting the conditions for the possibility of qualitatively new types of being arising from within this material universe. Expressed in an overly simple manner: just as electrons, neutrons, and protons bond into atoms, individual atoms also bond together, forming consequent molecules that possess characteristics beyond the features of the constitutive atoms (e.g. water, H2O, with its flame retardation capacity not found in the flammability of either hydrogen or oxygen). This open-ended process of material development leads to more complex and qualitatively distinct types of entities. As Lawrence Vogel states: “Primeval matter harbors a . . . ‘striving’ . . . to organize itself for life and hence for subjectivity.”

Thus, Jonas talks about “something like a yearning” being present in the rudimentary material conditions of the universe, e.g., the formation of the subatomic and atomic particles from which all material bodies arose. “To this extent, a ‘cosmogenic eros’ would come closer

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11 Philosophical Essays, 165. Also, we should note that for Jonas, we do not have a moral obligation to respect the freedom of the cosmos the way we have amoral obligation to respect the free development of an individual human life.
12 Mortality and Morality, 172.
14 Ibid., 173. Jonas thinks there is good reason to assert that this yearning obtains in the original conditions of the universe, because it obtains, without question, in the subsequently developed universe, most evidently in organisms. Hence, this assertion is not merely recourse to myth but a plausible speculation.
to the truth than a ‘cosmogenic logos.’”

There is a motion towards the novel and gradationally higher rather than a uniform fulfillment of an apriori plan. The material universe therefore moves toward levels of being beyond the atomic. To quote Thomas Nagel, whose thought agrees with Jonas’s on this point about of the universe’s development: “Teleology means that in addition to physical law of the familiar kind, there are other laws of nature that are ‘biased toward the marvelous.’”

The “Purposeful” Tendency of the Material Universe Toward Life and Mind

Here, we should also clarify the manner in which the term, “tendency,” for Jonas, implies some sort of goal-directedness. After all, tendencies need not be goal-directed. For example, if I spend excessive amounts of money on the purchase of vintage guitars, I will tend toward bankruptcy. What I tend toward with these actions is not a purpose, goal, or perfection. Similarly, snowmelt atop a mountain tends toward creating streams that flow downward to the bottom of the mountain. Yet I would hesitate to label this tendency as a fulfillment or goal of the water in anyway. Hence, a tendency toward particular outcomes does not entail a purposefulness in the relevant event or agents.

15 Ibid.
17 I owe this example to my good friend, Ryan Shea.
18 Let me explain. Snow melting into water and descending down a hill does indeed achieve the sort of equilibrium striven for by all objects in motion. But several questions seem germane: is the water better off or healthier in being at the bottom of the mountain? Would it constitute a real failure for the water (or even something else) should the water not end up at the bottom of the mountain? Does anything in any way “intend” this process and the state of the water being on flat ground? The water being on flat ground is indeed the normal terminus of snow melting on a hill... just as dust normally accumulates on computer keyboards: a non-intentional, non-minded event, which does not constitute any betterment or perfection and relative to which the terms “success” or “failure” seem inappropriate. Given the robust nature of the concept of telos as a fulfillment, definition, completion, etc. a mere terminus, as such, does not seem to qualify as a telos.
So how can we begin to solve this dilemma for Jonas? Jonas, as we recall, posits the presence of mindedness in teleological agents: even plants, to some extent, are “minded” qua teleological.\(^{19}\) Thus, Jonas’s discussion on Nature’s tendencies as teleological, even in the basic material constitution and development of the universe, implies, as well, that they are minded. And, as we just saw, Jonas does indeed posit the operational presence of mind in the origin of the universe. Thus, Jonas’s allowance for the operation of a Divine mind in the cosmogenesis likewise permits him to present the developmental tendencies of this cosmos as goal-directed rather than unintentional by-products or mere necessary consequences.

In order to clarify Jonas’s ideas, we can turn to concepts from outside his corpus, i.e., Aristotle’s distinction between spontaneous and chance events on the one hand, such as the falling of rain helping a farmer’s crops or unintentionally meeting a creditor at the market, and properly teleological ones on the other, such as the formation of teeth well suited for mastication. With the former, X just so happens to lead to Y, although X may have been a necessary event, as when the heaviness of water necessarily forces it downward in rainfall. With the latter, however, X is done for the sake of Y. The developmental tendencies of the universe are, for Jonas, this latter type (although the nature of this Y is, as we will see, indeterminate in advance: they tend toward some goal that properly completes them.)

Nonetheless, the term “tendency” is also apt here, insofar as Jonas, as we have seen, does not conceive of this development as a clear, step by step process that will necessarily end in the final perfection of the universe. In this way, the cosmological development is not precisely tantamount to more typical actions done for the sake of a goal. To use Jonas’s own example of a hammer and its activity: hammering is clearly done for the sake of a goal, e.g., placing nails in

\(^{19}\) Recall our discussion on this topic in Chapter 3, pages 157-178.
the wall on which artwork can hang.\textsuperscript{20} If that action does not result in nails capable of holding such art, then the activity is unsuccessful. With the clear goal in mind of hung artwork, we can adjudicate the relative success or failure of the action oriented toward that goal. On the other hand, in the discussion on cosmological development, Jonas insists there was no such determinate goal in mind but rather the open-endedness discussed above. The term “tendency” seems to capture well the fluid nature of the development.

A difficult question, however, now arises: if there is such an openness rather than determinate goals, then why should Jonas talk at all about a “secret teleology” at work in this cosmological development?\textsuperscript{21} Can the sort of open-ended tendency described above actually qualify as teleological?

In response, I say that there are two good reasons for Jonas to refer to this process as teleological.

The first reason concerns the fact that success and failure obtain in teleological activities. After all, it is rather incoherent to posit the relative success of a non-purposeful activity: the accumulation of dust on a computer screen is not purposeful; there is not some state of success or failure for the dust. Thus, if there is some “secret teleology” in the pre-organic development of matter, we ought to be able to ascribe at least some form of success or failure to it.

In order to address that issue, we need to go back to what we discussed in Chapter Three concerning Jonas’s ideas on the grades of conscious intention at work in goal-directed activity:\textsuperscript{22} namely, a person may have a vague telos of living somewhere other than in his current location, an urge towards some “goal” not yet articulated or fully known. His action is not merely the

\textsuperscript{20} The Imperative of Responsibility, 52.
\textsuperscript{21} Mortality and Morality, 180.
\textsuperscript{22} See Chapter 3, 159-160 for a further discussion on this issue
consequence of antecedent forces compelling his motion. Something in front of him is likewise leading him onward, albeit not in a fully conscious manner. This idea from Jonas of a gradation of conscious intention toward a *telos* is, I think, reflected in his ideas on the “secret teleology” at play the universe’s genesis and expansion. The urge towards novel and gradationally higher forms of existence (e.g. Life and its various stages) is vague, akin to the aforesaid urge toward moving away. But, in both cases, we can still indicate some relative sense of success or failure: if the person stayed trapped in his former location or if the basic material of the universe had stayed at that same ontological level always, then there would have been a failure to realize the *telos* of newness, novelty, and expansion. This failure could also obtain for each stage of cosmological development, if from said stage there were no subsequent developments, expansions, realizations of potentials, etc. The main point is not that there should been this or that type of entity but that there should have been something more complex, more capable of sustaining the possibilities for further expansiveness, more suited for Life, etc. An *eros* is naturally outward turning, and so a cosmogenic *eros* would be outward turning across the universe. As Jonas says, “it is a will to go beyond itself.” Hence, each stage of cosmological development, insofar as it actualizes this *eros* and expands the consequent possibilities open to it, may qualify as a success for this *eros*. (If nothing else, such is much more of a success than the aforesaid accumulation of dust). Consequently, each stage seems to represent the “successful” realization of a *telos*, albeit in a limited, rather nebulous manner. Thus, we see a first good reason for granting Jonas use of the term “tendency.”

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23 Jonas discusses “how many . . . human enterprises . . . meander through their course” in an indirect way, not following one pre-existing, well-articulated, and well-known goal that informs and structures the activity. (*The Imperative of Responsibility*, 74)

24 Ibid.
The second reason to grant Jonas the use of the term the “tendency” to describe this “secret teleology” of matter involves the issue of perfection (or at least betterment). Here, we need to recall what we noted in Chapter Three\textsuperscript{25}, how, for Jonas, a \textit{telos} is a fulfillment and \textit{entelecheia}. Thus, the question is: does the cosmological development conceived by Jonas strive for state of completion and perfection, such that the new patterns of existence brought about by this development would qualify as ends? Primarily, says Jonas, the cosmos tends toward “shooting into the opening and going the way of life.”\textsuperscript{26} Yet it is not merely Life but rather the ontologically important features such as responsibility obtaining in Life that could qualify as an end to this development. This would be a realization of the “readiness in \textit{physis} for subjectivity.”\textsuperscript{27} In other words, “vital evidence warrants the teleological speculation that subjectivity is the actualization of a potentiality in matter.”\textsuperscript{28}

We see that the foundational development of the universe sets the initial conditions for the possibility of there being such subjectivity. Hence, with the formation of a solar system capable of sustaining Life, rather than a mere collection of planets and stars inimical to the advent of Life, the universe seems closer to the fulfillment of the capacity, latent within it, for robust subjectivity. Later, when this development actually achieves Life, especially human life, on planet Earth, it not only sets the conditions for such subjectivity, but subjectivity now is achieved in the universe, especially with animals and humans As the universe expands in this fashion, it not only gets bigger; it also is more qualitatively perfected, i.e., more complex, possessing higher ontological features such as freedom.\textsuperscript{29} The aforesaid stages of development,

\textsuperscript{25} Chapter Three, pages 206-208.
\textsuperscript{27} Lawrence Vogel, “Evolution and the meaning of being: Heidegger, Jonas and Nihilism,” 69.
\textsuperscript{28} Lawrence Vogel, “Hans Jonas’s Exodus,” 28.
which facilitate this qualitative augmentations, therefore qualify as fulfilled end-states, albeit in a limited, rather nebulous manner.\textsuperscript{30}

In short, the \textit{telos} here is not that there be this specific thing or that specific thing, but rather that there be \textit{something} beyond what preceded it, \textit{something} heretofore unknown that expands upon the possibilities latent in the current process of universal evolution. To re-employ the term with which we began this discussion: the “tendency” toward qualitative novelty drives cosmological development onward and upward in a not fully articulated but still goal-directed manner. Unlike the tendency toward financial ruin, this tendency is not a by-product of a different intention but rather is constitutive of the “intention” at work in the expansive growth of the universe.\textsuperscript{31} Unlike the snowmelt’s tendency to descend down the mountain, this cosmological tendency can achieve or not achieve some relative state of success or failure, some state of fulfillment or perfection, e.g., setting the conditions for the possibility of Life. In brief, the tendency toward expansive growth in the universe, a tendency at work from the very origin of the cosmos, is teleological in ways that other tendencies are not. Stages of development of the cosmos, “perhaps aspired to since creation,” are thus goals of the cosmogenic \textit{eros}’s tendency.\textsuperscript{32} Of course, this tendency still stands as general and rather undifferentiated, yet it aims at some types of goals that are both, at least in some sense, successes and perfections.

\textsuperscript{30}To be clear: Jonas assumes, throughout his work, that mind and minded existence is a higher ontological state than is non-mindedness. “The development and increase of this . . . freedom constitutes the principle of all progress in the evolution of life.” (Mortality and Morality, 66) Similarly, the more minded the existence of entity, the qualitatively higher its ontological state, according to Jonas. Jonas consequently would assume that the fact that cockroaches can survive nuclear blasts or have lived, as a species, for millions of years, does not indicate their higher ontological status. To quote Jonas: “Not duration as such but ‘duration of what?’ [sort of features] is the question” whose answer determines the ontological status of organisms. (The Phenomenon of Life, 106)

\textsuperscript{31} The scare quotes around intention indicate, as noted above, the vague, non-articulated drive obtaining in and directing this cosmological expansion.

\textsuperscript{32} Mortality and Morality, 90.
Jonas as Compared to William Lane Craig

To get a better sense of Jonas’s thought, we should compare it to a contemporary theorist who likewise discuss cosmological teleology. William Lane Craig posits a “‘wider teleology,’ which emphasizes the necessary conditions for the existence and evolution of intelligent life, rather than specific instances of purposive design.”\(^{33}\) The enormous and almost incompressible complexity of the universe, the physical, chemical, and biological constants of the universe that must obtain for Life to exist at all—i.e., the existence and proper positioning of a sun capable of supporting Life, the corresponding existence and proper positioning of a planet able to be illuminated by that sun and hence capable of having Life develop on it, as well as numerous other cosmological contingencies that nonetheless have been realized in the universe—indicate, for Craig, some sort of teleology at work in the universe.\(^{34}\) Now Jonas, like Craig, also de-emphasizes the notion of design. Nonetheless, he, unlike Craig, does not discuss teleology merely in relation to the conditions for the possibility of the development and sustained existence of Life in the universe. Whereas Craig seems to think these conditions, as such, are teleological, Jonas, on the other hand, thinks that dynamic processes are the more proper bearer of the term “teleological.” For Jonas, as we saw in Chapter Three, things are teleological insofar as their actions orient toward certain goals. For instance, organic parts are, in virtue of their very existence, dynamic and active, and, as such, are teleological. We see here one more iteration of Jonas’s insistence on the necessary coincidence between being and doing. Hence, if the universe’s conditions, which allow for the development of Life, had never been actualized, if...


\(^{34}\) Ibid.
there had been no expansion and growth occurring within the framework of the universal constants, then there would have been no goal-directed activity. There was no activity as such, and thus there would not have been any real teleology. The universe is teleological insofar as it is moving in a certain direction, according to Jonas.

We can add more to this point of distinction between Jonas and Craig. After all, Jonas states that the universe’s initial conditions are more than merely capable of leading to the formation of the universe and the development of Life and especially human life. (A mere capacity, in this case, would be a situation in which it is not impossible for A to become B. In other words, it is logically possible for A to become B, even if in reality A never may come close to being B). Rather, he thinks “it is more reasonable to assume a preferment in the womb of matter” for “subjective life.”35 In this way, “the readiness is there” for such Life, beyond a basic logical potential for it.36 “The exploitation of this opportunity for life shows that more than a neutral accident is at work.”37 In which case, “right from the beginning, matter is subjectivity in its latent form.”38 Thus, the material universe “organized itself with this orientation, i.e., that the “possibility” [for life and subjectivity] is a positive and productive characteristic of it [this orientation], . . . that life, sensation, perception, thought are intended in it.”39 Something like aiming is at work from the very genesis of the material universe, leading it toward the development that culminates in the subjective Life of animals and especially human beings. Jonas’s sense of cosmological teleology is much broader and more dynamic than Craig’s.

35 Mortality and Morality, 172.
36 Ibid., 173.
37 Ibid.
38 Ibid.
39 Memoirs, 221.
God’s Role in Cosmological Development

Jonas’s picture of the universe’s development also includes a notion of God retreating in order to allow for a free, “planless” mode of creation to unfold.\(^{40}\) Just as Jonas dismisses the notion of a cosmogenic logos, likewise does he dismiss the idea of God stepping in periodically to refine or rework the development of the universe.\(^{41}\) God implanted within the universe the aforesaid \textit{eros} towards expansion, growth, and Life (with all its attendant features), but He does not interfere with the manner in which this expansion and growth occurs. God’s desire for the real obtaining of minded freedom in the created universe means that He allows the universe to become in a radically free manner.\(^{42}\) In that such freedom would be restricted or overwhelmed by the intervention of God, He has stepped back to let the universe march onwards of its own accord. In short, “God’s withdrawal permits nature to unfold according to its own possibilities and ultimately allows humanity the freedom to make God’s cause their own.”\(^{43}\)

One further point needs also to be mentioned here. Jonas contends that God wants there to be Life in the universe. God, says Jonas, desires the advent of Life, “both for its own sake and, by means of the soul, as a cradle for the mind.”\(^{44}\) He likewise posits that Life “is the world-accident for which becoming the deity had waited.”\(^{45}\) Jonas thinks that such a Divine desire for Life stems from the fact that “whatever variety evolution brings forth adds to the possibilities of

\(^{40}\) Mortality and Morality, 187.
\(^{41}\) Ibid., 184. Jonas posits that such a notion of intermittent divine intervention “destroys the very idea of explanation.” It also “runs directly counter . . . to our knowledge of nature and history.”
\(^{42}\) Ibid., 190: “The deity had to renounce His own power” so that “mind . . . can experience itself in the variety of its possibilities.”
\(^{44}\) Ibid., 190.
\(^{45}\) Ibid., 134.
feeling and acting and thus enriches the self-experience of the ground of being."\textsuperscript{46} “The Godhead reconstitutes itself” through these variegated and gradational modes of Life.\textsuperscript{47} Thus, we see here a reiteration of a theme Jonas expressed earlier: God is no mere mathematician; rather, He is a living God who can comprehend and relate to Life.\textsuperscript{48} He is, in short, “the God who wills life.”\textsuperscript{49}

We can summarize Jonas’s position in brief terms: God wants there to be a multifaceted, expanding, beautiful universe, an immanent expression of Himself. Thus, he implanted in the universe an \textit{eros} toward the fullness of that expression. However, he wants also that goodness to be realized \textit{freely}; hence, from the start, He stepped aside to allow the unrestricted development of the cosmos. The end of this universal process of expansion is a manifestation of God’s nature, especially as reflected in Life, but the process by which this occurs, as well as the exact mode and features of this cosmological end, are vague, undefined, even unplanned.

Part II: Jonas on the Teleology of Evolution

Jonas’s discussions on evolution connect back to his concepts of cosmological development. For example, Jonas discusses “organic macro-molecules” from which subsequent

\textsuperscript{46} Ibid.
\textsuperscript{47} Ibid. Jonas’s contention about the Godhead reconstituting itself, connects to his statement that there was an “extreme self-divesting of the Creator mind at the beginning of all things” (Ibid.) and his statement that “the deity has become powerless for Himself regarding” His creation (ibid., 191). Unlike the God of Aquinas’s philosophy, the God of Jonas’s philosophy does not perform self-enclosed activity, nor does He, as a result of His creative act, remain Absolute and Perfect in Himself. Rather, God, so to speak, loses much of Himself in bringing the universe into existence. Thus, the Power and Being of God, “divested” into “all things” at their creation, can be “reconstituted” insofar as the universe, especially humanity, realizes the fullness of that Power and Being, e.g., through creativity, goodness, and love. In this regard, Jonas seems akin to a Christian who takes fairly literally the prayer of St. Theresa that “Christ has no body now on Earth but yours . . . Yours are the eyes through which He sees compassionately; yours are the hands through which He does good.”
\textsuperscript{48} See \textit{The Phenomenon of Life}, Chapter 3, “Is God a Mathematician?” Jonas responds that God, qua creator and sustainer of Life, qua one who can know Life intimately, must be more than a mathematician, i.e., He must be living in some way, insofar as Life is much more than a set of mathematical properties.
\textsuperscript{49} \textit{Mortality and Morality}, 190.
life-forms descended.\textsuperscript{50} He thinks it a “most unlikely assumption” that their genesis was a “mere accident” rather than “the fulfillment of a preceding tendency.”\textsuperscript{51} As Lawrence Vogel says: “The teleological unity of nature links not only life and mind in evolution, but also matter and life in cosmogony.”\textsuperscript{52} Jonas posits that the evolution of Life—the gradual coming to be of various life forms from common ancestors—is a process rooted in and following the same patterns as the larger development of the universe.\textsuperscript{53} Our task now is to see how such patterns, especially the teleological ones, function, according to Jonas, in the process of evolution.

\textit{Evolution and the Issue of Internal and External Purposefulness}

As we begin this discussion on the teleology of evolution, it is important to distinguish between two kinds of purposiveness belonging to rudimentary life forms: (A) the kind involving goals internal to individual organisms and their species (e.g. survival and reproduction) and (B) the kind directed toward goals external to organisms and their species (e.g. evolving into higher forms of Life.) The amoeba that purposefully seeks out a sugar rich gradient exemplifies A but may have no connection to B.

In order to establish that the amoeba is oriented beyond itself, has a \textit{telos} external to itself and its species, a different sort of explanation would seem necessary. It is quite conceivable for there to be a natural world in which (1) every organism is connected, indeed descends from common ancestors, (2) purpose is really present in all such inter-related organisms, and yet (3) no such organisms have an extrinsic teleology. The ancient amoeba may have been the ancestor of human beings, and it may have exercised goal-directed activity and even possessed goal-

\textsuperscript{50} \textit{The Imperative of Responsibility}, 74
\textsuperscript{51} Ibid.
\textsuperscript{52} Lawrence Vogel, “Evolution and the meaning of being: Heidegger, Jonas and Nihilism,” 69.
\textsuperscript{53} See also \textit{Memoirs}, 221:
directed parts, but similarity in terms of being teleological does not entail that the amoeba was part of an evolutionary process teleologically oriented toward humanity. The presence of the same sort of feature in both kinds of organisms does not mean that such a feature is at work in the development of the one kind from the other. Leon Kass, for example, draws clearly this sort of distinction: the question of the purposefulness of individual organisms per se is different from the question of the possible purposefulness obtaining in the genesis and formation of Life in general.\(^\text{54}\) We see a clear distinction between kinds of purposiveness (A) and (B) from above.

Jonas, however, does not maintain and more so blurs this distinction. “Since finality—striving for a goal—occurs in certain natural beings, i.e. a living being, in a manifestly subjective way and become effective there in an objectively casual manner, it [finality] cannot be entirely foreign to nature, which brought forth precisely this sort of being.”\(^\text{55}\) Put differently: “Jonas defends teleology \textit{in life}, for all organisms are goal-directed, and a teleology \textit{of life}.”\(^\text{56}\) For Jonas, the world described in statements 1-3 above may be conceivable but it is not our world. Why not? The presence of purposefulness in all organisms is an ontological feature requiring some form of account. Here, Jonas, operating in a post-Darwin world, cannot fall back on the Aristotelian idea of eternal species. Nor does he think it appropriate to invoke God as the principle of explanation here, since such invocation of the Divine is speculative and ought to be the final, not initial step, of philosophy.\(^\text{57}\) Hence, such a question then leads back to the larger Nature from which organisms arose, as Nature can qualify as a philosophical explanation of the universal presence of teleology. Life does not originate in a vacuum but derives from the


\(^{55}\) *Mortality and Morality*, 173.

\(^{56}\) Lawrence Vogel, “Evolution and the meaning of being: Heidegger, Jonas and Nihilism,” 66.

\(^{57}\) For example, Jonas says that “theological speculations” are a “luxury of reason,” not its primary mode of operation. (Ibid., 113)
conditions set up by and the events occurring in Nature. “In bringing forth life, nature evinces at least one determinate purpose—life itself.” Yet no effect can possess qualities that are absent totally from its cause. Insofar as organisms are “produced by nature,” and insofar as such organisms manifest a robust purposefulness, then purposefulness must be found in Nature qua cause of Life. Jonas sees the causality at work in the development of Life as purposeful because of the sort of organisms rendered by such development. In fact, in discussing full, subjective purposiveness, he states, “the fruit [of such purposefulness] betrays something of the root and stem out of which it grew.”

Here, we are reiterating a point made in Chapter Three: according to Jonas, the production of purposeful organic parts in the process of evolution cannot itself be a purposeless event. There was, according to Jonas, a “minded” process by which the organism came to possess parts that, in turn, were employed “mindedly” by the organism. The end-directed parts of organisms are such in virtue of some sort of “laboring” and “striving” evinced by Life in its evolution. Hence, it is not just organisms but their parts as well that result from the purposeful process of evolution.

In other words, since Jonas insists on the purposefulness of organic parts, he insists that the process by which such parts developed must also have been purposeful. Purpose cannot arise in vacuum. In this sense, we see an interesting point of agreement between Jonas and Thomas

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58 The Phenomenon of Life, 74.
59 Mortality and Morality, 173.
60 The Imperative of Responsibility, 71.
61 Chapter Three, pages 181-183.
62 Ibid., 75.
63 Ibid., 73.
64 This position, of course, runs readily into a confrontation with Darwin’s theory of evolution, according to which a non-teleological mechanism of natural selection causes such organic parts. How can Jonas’s sense of the teleological genesis of organic parts square with Darwin? In Part Three of this Chapter we will address these and related questions.
Nagel. Granted, Nagel’s focus is on organisms as such and not their parts and the functions of such parts. Nonetheless, Nagel makes claims akin to Jonas’s: “In some of these organisms, there has appeared the additional capacity to aim consciously at their own good . . . From a realist perspective, this cannot be merely an accidental side-effect of” non-teleological Nature. Qua teleological, such organisms cannot just be the result of completely a-teleological process, which is precisely the same point Jonas makes about organic parts.

From these considerations, therefore, Jonas contends that we can infer that Nature is somehow purposeful in a manner analogous to the purposefulness exhibited by the organisms resultant from such Nature. “Just as manifest subjectivity . . . is something of an upstart phenomenon of nature, so too is it rooted in that nature and stays in continuity of essence with it; and that continuity makes both participate in ‘purpose.’” Organic subjects, such as human beings, result from and belong to the Nature from which they arose. In this way, Nature, by tending toward such subjective and purposive forms of life, likewise “participates in ‘purpose.’”

Here, we should explain briefly that Jonas, in positing purposefulness for evolution, does not indicate some sort of Intelligent Design, some apriori set plan. Jonas, after all, talks about how, in regard to evolution, “it would perhaps be better . . . to speak of goal disposition rather than of goal orientation” strictly speaking. This is so because in the course of evolution, “new opportunities give rise to new, previously unknown goals.” Hence, Jonas says that the development of Life has a “selective preference” which nonetheless “meanders” in its “course”

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66 As we will soon see, however, this is wide and quite stretched analogy; Nature’s “purposeful agency” is only in a very limited manner akin to that of other purposeful agents, such as human beings.
67 *The Imperative of Responsibility*, 73.
68 Ibid., 74. Nature, in producing and developing Life, does not do so “with knowing and figuring to itself the goal in advance.”
69 Ibid., 74.
70 Ibid.
toward fully realizing this preference.\textsuperscript{71} In this vein, Jonas’s sense of purposeful character of evolution is, unsurprisingly, quite akin to his sense of purposefulness in cosmological development: a vague tendency toward higher forms of existence.

\textit{Ascent of Life}

Jonas indicates that evolution is not oriented merely toward “the favoring of diversity” but is also oriented toward “the singling out of higher forms of life with the blossoming forth of subjectivity.”\textsuperscript{72} That is, the development in of Life in evolution tends toward what Jonas would consider ontologically higher forms of life, such as minded existence. According to Jonas, Life evolves such that not just more kinds of organisms come to be, but also, and more significantly, there arise organisms with greater freedom, mindedness, and purposefulness, i.e., the features associated with subjectivity. Consequently, Jonas asserts that there is “true progress represented by animal development.”\textsuperscript{73} Because they possess certain ontological features such as perception, intelligence, and feeling, we see with animals a qualitatively higher form of existence. According to Jonas, in the absence of such features, “there is much less to preserve.”\textsuperscript{74}

Let me explain more about Jonas’s position on the evolution of such qualitative levels. Given Jonas’s monistic interpretation of Life, features such as mindedness, affectivity, sensation, etc., just like physical characteristics, develop in the evolution of Life. Life unfolds in such a way as to allow and facilitate the advent of such features. This is not a dualistic approach, whereby there is evolution of physical parts and then, Deus-ex machina like, there is a depositing of an animal soul into an appropriate body that had developed independently. Jonas’s “emergent monism” leads him to see the physical and emotional/mental features as developing together and

\textsuperscript{71} Ibid.
\textsuperscript{72} \textit{Mortality and Morality}, 95.
\textsuperscript{73} Ibid., 74.
\textsuperscript{74} Ibid., 74.
entwined. In the community of Life, a higher degree of ontologically significant features is thus realized with the advent of animal life.

Yet is there, for Jonas, an end, a completion, to this evolution of ontologically significant features? Yes; it is human life, and not merely animal life, that represents the fulfillment of evolution. Here, it is worthwhile to quote at length a passage from Jonas scholar, Theresa Morris.

The human being, gifted with a highly developed sensibility and the capacity to think rationally and therefore determine his own actions through free use of his will, is the most evolved organism. Human rationality, coupled with the emotional capacity to feel, to care, and to act, places the human squarely within the realm of the potential for ethical responsibility; human beings have the cognitive capacity to understand the ecological facts and are emotionally attuned to respond. . . The value of the human being as a vital presence in the world rests on the capacity of the human to attain his potential as an ethical self.

Thus, man, according to Jonas, is “the supreme outcome of nature’s purposive labor.”

This is so because “in him the principle of purposiveness has reached its highest and self-jeopardizing peak through the freedom to set himself ends and the power to carry them out.” Given this capacity for free choice, man is also, according to Jonas, fully rational. Yet these two “capacities”, i.e., rationality and the ability to exercise freedom, likewise serve as the basis for a third feature unique to human life, i.e., “the capacity for responsibility,” whose initial

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75 Lawrence Vogel, ““Evolution and the meaning of being: Heidegger, Jonas and Nihilism,” 66.
76 Theresa Morris, Hans Jonas’s Ethic of Responsibility, 121.
77 The Imperative of Responsibility, 82.
78 Hans Jonas, “Ontological Grounding of a Political Ethics: on the Metaphysics of Commitment to the Future of Man,” Graduate Faculty Philosophy Journal, 10 (1984): 61. In discussing man’s “freedom to set himself ends,” Jonas is making a point we discussed in Chapter Three, pages 71-73 of this dissertation, namely that humans, because of our heightened freedom, can pursue purposes over and above our organic needs and desires. In this manner, we, in the exercise of purposefulness, are not tied to the demands of organic existence the way that other living things are. Nevertheless, Jonas perhaps should have used the term “purpose,” as we have just done, in order to explain the connection of freedom with human-specific teleology. In Chapter Six of this dissertation, we will address in greater detail this and other instances where Jonas fails to distinguish between ends and purposes.
79 See Chapter Three, pages 236-238 of this dissertation for a further discussion on how Jonas connects freedom and cognitive awareness.
appearance in man indicates that “something transcendent has come forth from the labors of evolution.” 80 Jonas then continues: “now, this threefold endowment [reason, responsibility, and free choice] of our nature, which is nothing other than the capability (albeit fallible) for truth, valuation, and freedom, is a thing unique and stupendous to behold in the stream of becoming from which it emerged.”81 Jonas goes so far as to say that in this way, evolution has produced in man “something infinite.”82 We see that man, as the bearer of full subjectivity, represents the completion of the universe’s development and the fulfillment of Life’s development.

After all, “in organic life, nature has made its interest manifest and progressively satisfies it . . . in the staggering variety of life’s forms, each of which is a mode of being and striving.”83 Yet this interest of Life is not merely for the quantitative proliferation of striving but more so for “the intensity of goal-striving of living creatures.”84 These “increasingly subjective” forms of purposive, striving Life thus make more manifest the original interest Nature towards full subjectivity, “and precisely here, the self-affirmation of being becomes emphatic.”85 By “self-affirmation of being,” Jonas means that being is not, in a fundamental sense, disinterested. For instance, the tendency of a living being to have concern for and to continue in its own existence is an ontological characteristic. To be, in other words, is to care. Man, in virtue of his heightened mindedness and freedom, can realize a profound affirmation of and care for his own being, as well as the being of others and indeed being in general. He can, in a manner beyond even the most intelligent animal, affirm (and indeed respond to) the value of being. Jonas, in this regard, is reiterating Heidegger’s notion about Dasein’s being as care, although he does so in light of his

81 Ibid.
82 Ibid.
83 Ibid., 54.
84 Ibid.
85 Ibid.
“existential interpretation of biological facts,” which locates man within, rather than separate from, the natural order. Hence, all beings, as such, care about their being, but the human being cares more comprehensively and more deeply. Insofar as he is the most subjective and purposive organism, man fulfills the primary purpose of Nature’s development, both prior to and within Life.

Nevertheless, a further word is called for here to explain why the possession of reason, free-will, and responsibility indicates that humans satisfy Nature’s desire for “the intensity of goal-striving.”86 In order to address this topic, we should re-state a point noted above: humans, with our capacity to ponder and pursue various ends, thus engage a diverse arena of goals unknown in the animal or vegetable kingdom. These novel goals include the following. Based on “the eidetic power of imagination” we can pursue the goal of creating and fabricating tools.87 We, “homo pictor,” likewise can aim at the goal of knowing and understanding images and their referents.88 And we set ourselves the goal of honoring the dead and answering metaphysical questions arising from “reflection.”89 The second, and more significant, point of explanation concerns Jonas’s aforesaid idea on the human “power to carry out” goals. We humans can fix our wills on certain goals that we have reasoned to be worthy, and in so doing we assume self-responsibility for the realization or non-realization of that goal. Our powers of free will, rationality, and responsibility thus allow us to pursue certain ends, despite, and even contrary to, the other factors—external conditions, survival instincts, the possibility of death, etc.—that

86 This phrase indicates a theme we have seen several times thus far: for Jonas, the genesis and development of the cosmos and the evolution of Life are rooted in a cosmogenic eros and ultimately in a creative, divine mind. A central part of that divinely implanted eros is the desire for full subjectivity, which subjectivity would include the capacity for and exercise of robust purposiveness. Put very metaphorically, thought hopefully still accurately: Jonas contends that Nature “wants” (in a quite extended sense of the term) for there to be beings who likewise “want” and teleologically pursue such wants.
87 Mortality and Morality, 78.
88 Ibid., 79.
89 Ibid., 83-84.
obtain in the context of our goal-directed activity. Humans, in manner distinct from other organisms, can pursue goals over and above their own survival. In this way, a human being is a “moral being.” As we discussed in Chapter Three, this moral human being positions himself relative to the eternal and the absolute, and he attempts to act in accordance with what is always and everywhere true and good. Likewise, this moral being, “responsive to ends beyond his vital ones,” can assume “the willing inclusion of the ends of others in [his] immediate own, to the point of fully and devotedly making them [i.e., the ends of others] his own.” In this fashion, the free, rational, and responsible human being, operating within the sphere of moral duty, intensely cares and works for the needs and concerns of those around him. The soldier dying for the sake of the lives of his comrades, the martyr dying for the sake of his faith, or the parent “dying” to her own interests for the sake of her children are but three ready examples of how humans act in this fashion: i.e., act in a single-minded and unwavering way for the good of the Other. To use Heidegger’s language (but not ideas explicitly found in his work): according to Jonas, the human being, in virtue of his freedom, rationality, and responsibility, exercises a “resolute” goal-directedness otherwise unknown in the community of Life. As such, he represents “the maximization of purposiveness” in Life and thus brings to completion the “interest” had by Nature in the very evolution of Life. Humanity, that is, crowns the evolutionary process.

Interpretive Confrontation with Theresa Morris

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90 The Imperative of Responsibility, 86, n. 5.
91 See Chapter 3, pages 236-238.
92 The Imperative of Responsibility, 86, n. 5.
93 Ibid., 81, n. 2.
94 Ibid., 81.
Theresa Morris, one of Jonas’s foremost expositors, expressly rejects the view that for Jonas, the human being is the end or telos of the evolutionary process; and before we proceed any further, we must consider her reasons for doing so. In Morris’s words: “Jonas does not argue that there is some overall purpose or telos in evolution toward the human being at work in the developments of evolution, but he does insist that evolution cannot be entirely arbitrary.”\(^95\) In response, I point out that in talking about the “non-arbitrariness” of evolution Morris argues for a position with which I concur. This process is not clearly defined, nor does it tend toward a known and determinate goal; indeed it is best defined by what is not, i.e., it is not arbitrary. Such has been my interpretation of Jonas concerning both cosmological development and evolution. Human beings, as such, were not an explicit goal in mind, either of God or of Nature. However, as we have seen throughout this chapter, Jonas posits a certain “progress” made in the evolution of Life, some tending toward an as-yet unknown, indeterminate goal. In fact, Morris herself states that for Jonas, “something within the dynamics of the system [of evolution] operates in such a way that encourages the development for greater capacities for consciousness.”\(^96\) If human beings fulfill this tendency, then they would qualify, as well, as the end of cosmological development and evolution. In this way, I interpret Jonas as offering a conditional acceptance of man as the telos of evolution. Had man not existed, and something else served to fulfill the tendencies of matter and Life in the universe, then it, not man, would constitute said telos. Likewise, if some species had developed capacities for freedom and consciousness greater than man’s, then, again, we see something non-human as the end of evolution. After all, I have insisted throughout this chapter that in cosmological development and evolution there was no set, determinate, or pre-ordained goal. Nonetheless, given the universe as it is, humanity does, in

\(^{95}\) *Hans Jonas’s Ethic of Responsibility*, 53.

\(^{96}\) Ibid.
fact, complete it. Jonas, in speaking of man, writes that “the vital concern of feeling which is at the bottom of life’s venture and toil, and which is always for the enjoyment of selfness in the meeting with otherness, has here by a daring detour found its true and, in a way, original subject.” That is, man brings to completion the cosmos’s foundational eros—which eros we examined earlier in this chapter—for conscious and free selfhood. Man completes the venture of Life for a fully feeling, concerned, free organic subject, which was its original concern. In that this is a “daring detour,” we do not see here a clear, determinate goal of humanity, and yet humanity still brings this process to completion. Such is my interpretation of Jonas on this point, as opposed to Morris’s.

**Image of Man as Telos**

It is also important to note that for Jonas, man, as the ultimate goal of the natural world’s development, does not necessarily mean flesh and blood human beings, past, present, or future. That is, he does not refer to the actual lives of human beings as the final consummation

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97 *The Phenomenon of Life*, 186.

98 However, what about the fact that it is conceivable that some species with a highly developed consciousness could still evolve? (After all, the process of evolution is not over as far as we know) What if this species happens to have a greater degree of freedom and consciousness than humanity? Would not it, rather than man be the telos of evolution? If so, why can we argue that man completes this process of evolution?

In response to these questions, we should bear in mind the following considerations. First, we do not have any evidence of such a species appearing anytime soon, despite millions of years of evolution. Second, given the fact—which Jonas often addresses—that humanity is capable of seriously harming, if not outright destroying, Life on earth, it is hard to imagine that from within that same fragile Life, so easily subjected to the power of man, there could arise a species whose capacity for rationality and freedom actually transcends man’s own ability. Granted, Jonas defends the possibility of unforeseen novelty in the development of Life, but the hypothetical species addressed here seems much more than merely “novel.” It seems almost impossible given the current state of Life and our knowledge about it. As far as we can tell, such a species will not come to supplant humanity. Third, Jonas’s ideas on the development of Life relate to his ideas on our responsibility for that same Life. Thus, in order for humanity to understand and best exercise its responsibility for Life, we may need to see our special place in evolution and the responsibilities for Life that follow from this position as the completion of evolution. We care for Life just as Life cared to complete itself in us.

In short, though there is a possibility that man, in the end, will not be the telos of evolution, nonetheless, Jonas thinks that from what we can surmise now, we are in fact that telos, and we have very good reasons, both scientific and ethical, for considering ourselves as being that telos even into the future.

99 *The Imperative of Responsibility*, 43.
of evolution. Jonas readily admits that the state of current humanity contains many flaws, failures, and faults. Indeed, cognizance of the suffering inflicted on the Jews during WWII plays a central role in his thought.\textsuperscript{100} In this manner, Jonas clearly distances himself from the optimistic appraisal of Pierre Teilhard de Chardin, for whom the universe, and especially humanity, was developing into a higher beings tending toward an Omega Point of charity and enlightenment in their activity in the world. Jonas takes offense at such an overly hopeful assessment.\textsuperscript{101} For him, humanity, despite our higher grades of freedom, awareness, reason, and morality, is certainly not an unmitigated success story and thus seemingly not an appropriate candidate for being the consummation of cosmological and organic development. Jonas sometimes hints that, overall, humanity has perhaps done more harm than good.\textsuperscript{102}

If so, then why should he see humanity as the proper end of the development of the universe and of Life? The answer lies in his theory concerning the “Image of Man.” For Jonas, the Image of Man is the idea of man as he should be, man as realizing his higher capacities, such as moral responsibility, to the highest extent possible.\textsuperscript{103} According to Jonas, such capacities, unique to humanity, possess an elevated ontological status.\textsuperscript{104} To the extent that we approach the Image of Man, then we more fully represent the completion of Nature’s development.

\textsuperscript{100} See the second half of his Mortality and Morality: A Search for the Good after Auschwitz.
\textsuperscript{101} See Jonas’s words from The Phenomenon of Life, xxiv: “The reader, however, will find nothing here of the evolutionary optimism of Teilhard de Chardin, with life’s sure and majestic march toward a sublime consummation.” See also Mortality and Morality, 189: “The evidence of both cosmology and anthropology, which we must not ignore, flies in the face of all these high-minded and optimistic constructions.”
\textsuperscript{102} See Theresa Morris, Hans Jonas’s Ethic of Responsibility, 128: “Jonas describes the human potential and capacity for ethical responsibility toward being as contributing to the” Image of Man.
\textsuperscript{103} See, for example, Mortality and Morality, 175: the moral freedom of man “is the place where the highest pinnacle of holiness and the consecration of life to the commanding good towers up to heaven . . . the transfiguration of the temporal by a moment of eternity.” See also The Imperative of Responsibility, 43: The Image of Man “is . . . an ontological idea” of such significance that “it demands the presence of its embodiment in the world.”
This is the end-goal for which the universe strives, the completion of the cosmological eros that compelled the first stirrings of matter and Life. The Image of Man, therefore, is the unplanned end of this striving. Insofar as Jonas allows for some “secret teleology” at work in the very foundation of the universe, insofar as he sees a vague goal-directedness at work in the evolution of Life, and insofar as he sees the human image as the fulfillment of the universe, then the Image of Man is the proper telos of cosmological and organic development. We most often merely approach and may never fully realize this Image, but it is an idea that must always be held up as ideal governing who we are and what we do. “Man models, experiences, and judges his own inner state and outward conduct after the image of what is man’s. . . He lives the idea of man.”

The ever-present possibility of the full realization of this Image stands as the completion of the development of the universe, both prior to Life and within Life itself.

A further, clarifying word is required before we proceed, however. Given the status of the “Image of Man” as the proper telos of evolutionary development for Jonas, one could be tempted to say the following: Jonas would accept a position, such as Transhumanism, which fosters the further development of those characteristics constitutive of the “Image of Man.” That is, as man evolves in a transhumanist fashion, he thus could become more moral, more rational, more free, etc. and thus bring to greater realization the “Image of Man” striven for by evolution. Nonetheless, as tempting as such a position may be, it certainly is not an accurate understanding of Jonas for at least several reasons. First, Transhumanism arrogates to humanity the task of continuing his evolution under the simultaneous assumption that evolution’s work is incomplete and requiring of improvement. Jonas, on the other hand, is very wary of such attempts to

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105 The Phenomenon of Life, 185.
106 See, for example, Ray Kurzweil, The Age of Spiritual Machines: When Computers Exceed Human Intelligence. New York, NY: Viking Penguin, 1999), 44. Kurzweil asserts, “evolution is . . . only a quantum smarter than completely unintelligent behavior. . . In contrast, humans are a lot smarter” than evolution. Human intelligence
improve what evolution as accomplished in man. He argues that the “emergence [of man] from a blind but age long mechanism of nature (if accident indeed it was) . . . [may] be compounded by what can be termed accident of the second power: by man’s now taking a hand in his further evolution in light of his ephemeral concepts.”

In fact, in introducing this issue of man’s further, self-directed evolution, Jonas calls this “prospect . . . most terrifying.” Likewise, he posits that “there is the heritage of a past evolution for us to preserve.”

Second, whereas Transhumanism hopes for immortality, Jonas is very clear that humanity ought never to work toward such goals. For Jonas, humanity becomes most fully itself by working wisely and well within natural limits rather than trying to transcend them. It is precisely our mortality that allows and inspires us to “number our days and make them count.”

Third, we need to look at the transhumanist model of disembodied human existence and its dualistic understanding of humanity: human mindedness and identity can (and perhaps even should) exist without their original body. Kurzweil argues that “we don’t need real bodies. If we happen to be in a virtual environment, then a virtual body will do just fine.”

On the contrary, Jonas sees the state of embodiment as central to humanity. As we just saw, Jonas defends the essential importance of mortality for humanity. Yet, “the adjective ‘mortal’ in particular calls attention to the existence…

\[\text{Philosophical Essays, 177. Emphasis original.}\]
\[\text{Ibid., 176.}\]
\[\text{The Imperative of Responsibility, 32.}\]
\[\text{Ray Kurzweil, for example, anticipates the possibility of “immortal software-based humans.” Ray Kurzweil, “The Law of Accelerating Returns,” KurzweilAI.net March 7, 2001. See also, The Age of Spiritual Machines, 128-129. Here, Kurzweil conjectures hopefully about humans achieving a computer-based existence, such that “our identity and survival will ultimately become independent” of the mortal human body. In this way, “the essence of our identity will switch to the permanence of our software.” Thus, “our immortality will” become possible.}\]
\[\text{Mortality and Morality, 98.}\]
\[\text{Ray Kurzweil, The Age of Spiritual Machines, 142: In fact, says Kurzweil, we can eventually construct a “virtual body” that simulates bodily experiences such as skiing, watching movies, or making love. (Ibid., 144)}\]
of the body with all its crass and demanding materiality.”

Hence, for Jonas, man, qua essentially mortal, is likewise an embodied existent. Indeed, he argues vehemently against a dualist interpretation of human existence. Fourth, and finally, we need to consider the whole notion of Utopia and striving for Utopia, a notion at play in Transhumanism. Jonas, though, takes the opposite approach. “In the end, the principle of responsibility thus joins the principle of hope—no longer an extravagant hope for an earthly paradise but a more modest hope that the earth may continue to be habitable and may permit our race an existence worthy of it.”

Thus, in contradistinction to Transhumanism, for Jonas, “the real, true, and worthy transcendence for man consists in free and reasoned self-giving sacrifice for the good, even in the face of suffering and death.”

Part III: Jonas in Comparison to Darwin, Aristotle, and Kant

Jonas and Darwin: The Issue of Natural Selection

In order to get a clearer sense of Jonas’s view on teleology and evolution, it is worthwhile to position him relative to Darwin. After comparing Jonas and Darwin, we will then consider

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113 Mortality and Morality, 42.
114 See The Phenomenon of Life, First Essay,” Life, Death, and the Body in the Theory of Being.” There, Jonas asserts that a holistic interpretation of man, an interpretation that takes into account together his embodiment and his mindedness, is the only adequate anthropology.
115 Kurzweil foresees a future in which “information can be immediately understood” and “life-expectancy is no longer a viable term in relation to intelligent beings.” (The Age of Spiritual Machines, 280). In addition, there will be “a ubiquitous use of neural-implant technology, which provides enormous augmentation of human perceptual and cognitive abilities.” (Ibid). Granted, he does not proposes a full-on Marxist type utopia, but he does seem to endorse the possibility of really wonderful sort of future to be achieved via computer technology.
116 Memoirs, 252. (Re-quoted there from Jonas’s 1987 speech on receiving the Peace Prize in the publishing industry of Germany)
him in relation to Aristotle and Kant. First, we should note what Jonas says about the basic principles of evolutionary theory.

Like every major theory, the contemporary theory of evolution and genetics is an intricate combination of fact, hypothesis, and deduction. In the category of established fact belongs evolution as such: that species do change, have emerged in a series of changes from ancestral forms, and in their entirety form a branching system of common descent in which the simple precedes the complex, and transitions are gradual. Also an ascertained fact is the occurrence of mutations.¹¹⁸

Thus, “Jonas accepts evolution as a fact.”¹¹⁹ Indeed, Jonas’s monistic presentation of Life and its being an interconnected community rests on the prior assumption of the common derivation of all life forms. Life is one, in part, because Life has arisen from one source. In this manner, Jonas aligns with an evolutionary perspective.

Nevertheless, the more closely we examine Jonas the less clear things seem. Jonas also states that “evolution also might be understood as a series in which critical equilibrium thresholds occurred by the thousands and, with their several causally equivalent alternatives, enabled a hidden tendency to exercise its ‘preference’ and resolve the momentary indifference in favor of one of the options.”¹²⁰ (A “critical equilibrium threshold” refers to a situation in evolution in which several different types of development could occur, based on various causal factors including the mechanics of natural selection, the particular environment, etc. Such causal factors reach a critical threshold that is resolved by the influence of other factors. See the footnote below for further explanation.¹²¹) When, where, and in what certain features may arise

¹¹⁸ The Phenomenon of Life, 44.
¹²⁰ The Imperative of Responsibility, 74, n. 9.
¹²¹ Jonas sees such “thresholds” as similar to the “junctures with ‘casual indifference’ . . . in the context of the psycho-physical problem.” (Ibid) Such “junctures” were situations in which psychic causality (e.g., volition exercised by one’s free will) could provide the explanation for why one particular chain of physical causality was enacted in lieu of other. For instance, it could explain why the sequence A-a-ɑ, where A represents nerve “control centers,” a represents the “motor commands,” and ɑ represents the outward action, say lifting a pencil, was enacted instead of B-b-ɓ or C-c-ɕ. (Ibid., 217) The “initial resolution of indifference” was provided by the aforesaid willing of the specific activity (lifting the pencil) by the subject. (Ibid., 218). Likewise, the “thresholds” would seem to be
in the course of evolution are open-ended questions, but what is not so open-ended is the
tendency of Nature, qua directing of evolution, to seize upon such opportunities that best foster
the ascent of Life. Consider also the following quotation. “‘Suggestions’ of goals by chance
occasion and the turns of direction they cause would probably apply more to single segments of
the course [of evolution] than to its overall direction; and even the occurrence of the suggestive
occasions could have been helped along already by the earlier goal-orientation.”

Here, I want to focus in on two phrases from these sentences and analyze them in order to
illustrate the apparent tension between Jonas and Darwin. The first phrase is “enabled a hidden
tendency to exercise its ‘preference.’” The second phrase is “even the occurrence of the
suggestive occasions could have been helped along already by the earlier goal-orientation.” In
both cases, we see a reference to some sort of end-aiming process or entity at work in evolution,
something in the background or at the basis of evolution. Hence, when an organic type acquires
features, this event would relate back to “an earlier goal-orientation.” In fact, if this acquisition
of features comes about from the “preference of a hidden tendency,” then are we seem to be back
to the “secret teleology,” first seen in Jonas’s sense of cosmological development.

From what we saw have seen with Jonas, Nature could be the locus of such teleological
process. For example, as we saw, Jonas talks about Nature “having a determinate purpose” in
producing Life. Nature, qua producer of such Life, had to possess purposefulness in order for
resultant natural things likewise to manifest purposefulness. Nature’s actual production of such

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situations in evolution in which a certain causal chain is enacted ultimately because of the efficacy of the original
Mind that created the universe, as well as the “eros” implanted in that universe. For example, suppose that at a
certain point in the development of Life, a certain species could just as well have evolved four legs or two. (These
two possibilities would be the analogues of the abovementioned casual chains.) The mechanisms of evolution, such
as natural selection, may not have been sufficient for the resolution of this casual “indifference.” Perhaps what
proved decisive, therefore, at this and other “thresholds, was the Mind and eros working its way toward full
subjectivity. Thus, this species becomes bi-pedal in the tortuous path of Life’s development toward completion.

122 Ibid., 74.
purposeful organisms— with their goal-directed parts, their goal-directed behavior, and goal-directed structure—would have to be purposeful.

Nevertheless, such a position, when compared to Darwin, generates immediately the following—and vexing—question: how can Jonas’s thoughts square with Darwin’s idea of natural selection? For Darwin, natural selection is the primary mechanism by which species change and evolve. The alteration of one kind of organism into another, occurring over the course of many, many generations, rests on the “selection” by Nature of certain traits that prove beneficial in the struggle for survival and are inherited by descendants of the first organisms to possess them. However, according to Darwin, it would be a mistake to posit that Nature consciously or intentionally selects those traits. It has been “objected that the term selection implies conscious choice . . . [However], in the literal sense, natural selection is a false term.” As prominent Darwinian, Daniel Dennett puts it: “evolution [by natural selection] is a mindless, purposeless, algorithmic process.” In short, on this theory, Life has developed primarily through a decidedly non-teleological process, i.e., natural selection. Thus, says Dennett, Life today is “the outcome of nothing but a cascade of algorithmic processes feeding on chance.”

Leon Kass, prior to offering speculations concerning the possibility of evolution being teleological, discusses Darwin’s ideas in detail in order to see subsequently if and how they may be compatible with such teleology. Kass, in this discussion on the fundamental theses of Darwinism, states that, “Darwin’s theory of natural selection is not a theory of nature acting for an end but of nature acting of necessity and through chance coincidences of its necessitated

123 I am convinced that Natural Selection has been the most important . . . means of modification.” Charles Darwin, *The Origin of Species*, with an Introduction by Sir Julian Huxley,( Signet Classics, New York, NY: 2003), 7.
124 See Chapter 2, page 125 for a further discussion on natural selection.
125 Charles Darwin, *The Origin of Species*, 77-78.
127 Ibid., 59.
workings and effects.”128 Hence, evolutionarily speaking, “plants, animals, and man . . . are not nature’s purposes, nor anyone else’s. Moreover, they are part of a process that began by accident, proceeded by necessity, and has no end. Nature is blind and dumb, aimlessly but persistently going nowhere.”129 In short, Nature, in the process of natural selection, is not volitional and does not exercise real preference. Its’ “selection” is a “metaphorical expression,” in no way akin to actual goal-oriented selections performed by intentional agents.130 Thus, such a Darwinian perspective does not ascribe to Nature (and its “selection”) any kind of purposeful activity in the origination and evolution of such organisms. In fact, Darwin would reject the idea of Nature, as such, as an agent directing evolution.131

So where does that leave us in our comparison of Jonas to Darwin? In order to answer that question, we would need to highlight Jonas’s exact thoughts about natural selection. First, he writes that “the mechanics of selection, in which no purpose intervenes, is to take the place of teleology in that it decides on the merits of the random material offered it.”132 Secondly, he states that, through natural selection, “the emergence of new forms falls wholly to the random play of aberrations from the pattern.”133 Jonas thus articulates what we have just seen: natural selection is not a purposeful process.

Here, we reach the crux of the issue. It seems obvious that for Jonas, Life’s development is purposeful. However, as Jonas indicates—and as we have also seen—Darwin posits that this same evolution occurs by the “mechanics of selection in which no purpose intervenes.” Even on Jonas’s own account, natural selection cannot be teleological. Yet natural selection is the primary

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129 Ibid., 264.
130 Charles Darwin, The Origin of Species, 78.
131 Ibid. “Again, it is difficult to avoid personifying the word Nature; but I mean by Nature only the aggregate action and product of many natural laws, and by laws, the sequence of events as ascertained by us.”
132 The Phenomenon of Life, 50.
133 Ibid., 51.
means by which organisms and species evolve according to Darwin. Put in simple terms: for Darwin, X has feature Y because of a non-teleological natural selection, whereas for Jonas, X’s possession of Y results from some form of teleology. Thus, how can Jonas be Darwinian, if he proposes a real teleology for the development of Life, which same process, for Darwin, occurs primarily due to the decidedly non-teleological mechanism of natural selection? As Stephen Jay Gould states, “Darwin’s mechanism—natural selection—can only generate local adaptation to environments that change in a directionless way through time, thus imparting no goal or progressive vector to life’s history.”

134 How can that mechanism fit into Jonas’s sense of Nature operating for purposefully in the production of organisms?

First Attempt at Reconciling Jonas with Darwin

I can see several possible avenues for assisting Jonas in this situation. First, we could argue that Jonas does not accept a Darwinian view of natural selection as the means to explain how organisms acquire their attributes. Thus, he could retain, for Nature, some sort of teleological activity that leads to such attributes, akin to Aristotle’s thinking. By jettisoning Darwin’s non-teleological sense of natural selection, Jonas could posit a Nature that might really, not just metaphorically, “select” the manner of organic development.

There is, perhaps, reason to suspect that Jonas himself takes this view. Jonas talks about a “‘volition’ . . . ascribed to nature,” which, when “encountering physically favorable configuration, is not indifferent to its invitation but gives it selective preference and rushes into the offered opening, thereafter to carve its bed through further opportunities as they present

themselves." In other words, such “physically favorable configurations” may refer to random mutations helpful for organic survival. Thus, though these “configurations” arise randomly, they are selected somewhat intentionally by Nature itself. Just as someone about to dine may have placed in front of him a random smorgasbord of foods some of which he then chooses, so, too might Nature have placed in front of it certain random “configurations” (e.g., certain types of physical features for certain species) which it then chooses in a manner similar to the volition exercised by the person dining. Moreover, such “volitional selection” generates a new set of possible configurations, and when such configurations “present themselves,” Nature again exercises its “preference” by selecting them. In this way, if we speak very anthropocentrically, we could posit the following: Nature says of certain configurations, “I choose this” and of others, “I do not choose that.” Nature, akin to other purposeful agents, deliberately decides in favor of particular options instead of others, precisely because such options are more “favorable” to its ends. For instance, just as I “select” certain books because they are most “favorable” to my end of completing my dissertation, likewise Nature could select certain “configurations” most “favorable” to its goal of the ascent of Life. Here, the “selective preference” is performed a-posteriori to the generation of the “configurations,” just as my selection is performed a-posteriori to the set of books in the library. Both the configurations and the books stand as sets of options that either Nature or I can pursue or not after “encountering” them. In this way, then, Nature really selects in its natural selection.

However, although this interpretation of Jonas can be presented clearly, it poses serious problems for his overall project. First, it seems to contradict other elements of his thought on mindedness, purposiveness, and agency, especially concerning Nature. After all, when talking

135 The Imperative of Responsibility, 74.
about the mindedness in non-human entities that grounds purposefulness, Jonas posits a gradation of such mindedness.136 There is a concurrent gradation of articulated purposefulness in non-human entities. Hence, for Jonas, even if Nature is minded and concurrently purposeful, then it is so in a way analogous to, and most certainly not identical with, the manner in which human mindedness and purpose operates. The whole book-selection metaphor does not work on this account, because it rests on the similarity in intentional consciousness in Nature and myself, rather than a gradation of such consciousness. This example also does not work because whereas I may determine the role played by the books for my dissertation, Jonas, as we have seen, does not posit a determinate path in the development of Life. In turn, the books are mere instruments of my activity, whereas organisms are end-setting beings and thus not mere instruments. Likewise, the book-selection obtains in a process directed toward a clear goal, i.e., completing my dissertation, but the selection of the physical configurations does not obtain in a process with a similarly clear goal, since Jonas does not posit a set goal-in-mind for evolution. Finally, Jonas does not see Nature itself as an agent in anyway akin to a human agent.137 Nature would therefore be considered a vague type of “agent,” whose “agency” is not easily known or ascertainable.138 Hence, when Jonas talks about “selective preference” exercised by Nature, he cannot intend such a phrase to be in anyway equivalent with “selective preference” as exercised by human agents. After all, Jonas says this sort of “preference” follows from a “hidden tendency,” not from an explicit purposefulness. Whatever this “selective preference” activity may be for Jonas, it cannot, in light of his own thought, be human-like agency.

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136 See Chapter Three, pages 7-13 for a further discussion on how, according to Jonas there are varying grades of mindedness that ground purposefulness.
137 Jonas says that if Nature, as such, operated, it would do so as an “unconscious total subject.” (The Imperative of Responsibility, 73)
138 Scare quotes indicate the stretched use of these terms.
A second problem for the aforementioned interpretation is as follows. Recall that Jonas uses evolutionary theory to indicate the continuity among life forms, which continuity plays an integral role in his philosophical biology. In this fashion, Jonas thinks that “the triumph which materialism achieved in Darwinism contains the germ of its own overcoming.” However, “the success of Jonas’s project hinges on this proposition [about Darwinism] for it opens up the possibility that one can both respect evolutionary science and still believe that the history of life is directional.” Thus, Jonas has a strong admiration for evolutionary thought and is willing to accept and employ it, albeit with certain conditions. Nevertheless, the conceptualization of evolution and natural selection presented by this interpretation here does not accord with the prevailing “evolutionary science.” After all, natural selection, the primary mechanism of evolution, is not a conscious, intentional, or purposeful process. The radical re-working or jettisoning of natural selection offered by this interpretation does not indicate acceptance of or belief in evolutionary science. Hence, with the concepts offered here, Jonas would be employing a rather unrecognizable form of evolutionary theory. Indeed, Jonas himself, while talking about Darwinian natural selection, calls it a “logical deduction” from other “facts” of evolutionary science. Hence, in Jonas’s own words, we see articulated the second reason for the untenability of this current interpretation: it does not accord with Jonas’s own “respect” for and use of the prevailing theory of evolution.

A third and closely connected problem for Jonas is that a radical reworking of evolutionary theory, such as proposed by this interpretation, may undermine his entire project of

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139 See, for example, The Phenomenon of Life, 57. “If, [because of evolution], it was no longer possible to . . . [see man’s] mind as discontinuous with prehuman history, then by the same token no excuse was left for denying mind, in proportionate degrees, to the closer and remoter ancestral forms, and hence to any level of animality.”
140 Ibid., 53.
141 Lawrence Vogel,” Evolution and the meaning of being: Heidegger, Jonas and Nihilism”, 67.
142 The Phenomenon of Life, 44-45.
philosophical biology. After all, “Jonas paid close attention to the sciences, especially biology, and he believed that philosophy must embrace proven scientific knowledge.”\textsuperscript{143} Now, the current form of such biology accepts as valid a neo-Darwinian theory of evolution, including the non-teleological structure of natural selection. Jonas, by jettisoning such a view of natural selection, would not align with contemporary biology from the start, harming the very possibility of his overall project. There seems to be little credence in an analysis of “biological facts” that refuses to accept a basic, general, and almost universally respected explanation for such facts. For instance, if I posit a “philosophical physics” which rests on the notion of the ether, I am not offering a credible analysis of the physical world as currently understood. Hence, if we accept this current interpretation of Jonas’s theory, then we likely would place his many insights and positions—which offer a striking and important perspective on Nature and Life—into the realm of fascinating but misguided and irrelevant philosophies, since they lead to concepts completely at odds with our understanding of biology.

So we ask: Is there a second avenue to follow in order to reconcile Jonas with Darwin, at least to some extent?

\textit{A Second Attempt at Reconciling Jonas with Darwin}

This option involves, first of all, an acceptance of the non-teleological structure of natural selection, as well as its centrality for explaining the evolution of Life. On this view, then, Jonas does not take issue with explicit tenets of Darwinism. However, this non-teleological structure does not negate the fact that for Darwin, Nature and its processes were ordered. For instance, he

\textsuperscript{143} Lawrence Vogel, \textit{Evolution and the meaning of being: Heidegger, Jonas and Nihilism}, 66.
posited “laws of correlation,” the “laws of inheritance,” the “geometrical tendency” of “all plants and animals” to increase in number, a “general law of good . . . derived from the intercrossing of distinct individuals,” etc. Thus, he does not seem to ascribe the entire development of Life to chance. For example, Darwin, when discussing survival of the fittest and how the conditions relative to organisms influence their survival and flourishing, talks about how for “every species, many different checks . . . come into play.” Such checks “all will concur in determining the average number or even the existence of the species.” Thus, he continues, it would be a “false . . . view” to attribute to “chance . . . the number and kinds” of “plants and bushes clothing an entangled bank.” Hence, the type and quantity of organisms does not seem to be totally random according to Darwin. Some type of natural order, we might be allowed to say, obtains such that certain types survive and others do not. Granted, natural selection is not an intentional process, but the fact that certain types of organisms tend to survive and flourish as a result of this selection indicates, perhaps, that the world which these selected organisms inhabit is such to facilitate this survival and flourishing.

Here, I think Leon Kass provides some helpful insights. Kass speculates concerning “the origin of sensitivity” in the process of evolution. For Kass, this origin could have occurred by chance, such as the randomness of natural selection. “But is it due to chance that sensitivity was preserved or that it began to flourish?” Kass posits that perhaps the world is set up such that

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144 *The Origin of Species*, 14.
145 Ibid., 15. Granted, for Darwin, such laws were “for the most part unknown.” Mendel’s theory of genetic inheritance helped fill that lacuna in Darwinism, albeit after Darwin’s own time.
146 Ibid., 64.
147 Ibid., 95.
148 Ibid., 72
149 Ibid.
150 Ibid.
152 Ibid.
this feature of sensitivity, like other features such as mind, “should have been preserved.”

“The kinds and levels of” organisms “complement and answer to the kind of the world this is,” e.g., the world ordered by the laws Darwin discussed. In other words, natural selection working as a random mechanism does not account fully for the development of Life. Other conditions in the world also, in addition to natural selection, contribute to the process of evolution. Kass says such a situation is akin to a deck of cards being dealt: the exact dealing at certain times may be done by the dealer in an arbitrary fashion (i.e., such as with natural selection), yet given the deck of cards as it is and given sufficient time, the cards will be dealt out in the “right order.”

How can we put this in Jonasian terms? For Jonas, there is a purposeful intending of the advent, expansion, and ascent of Life, one which leaves open-ended the time and mode of this advent, expansion, and ascent. Nature may provide the setting and original “preference” and “desire” for Life’s coming and development. In turn, natural selection, operating non-teleologically, works out the details of this more general, basic “tendency” of Nature. Put more succinctly: Nature’s aiming for the qualitative and quantitative expansion of Life is realized through the non-teleological mechanism of natural selection. A purposeless process provides the means through which Nature’s deeper purposes can come be realized. Thus, we see here “an earlier goal-orientation” that operates through a non-teleological set of events.

In this way, Jonas believes there could be “generalized . . . ‘purposiveness’ [that] may assert itself in . . . determinate casual mechanism, not so much against it as through it.”

Natural selection, as one such “determinate casual mechanism,” could accommodate some

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153 Ibid., 274.
154 Ibid.
155 Ibid., 275.
156 The Imperative of Responsibility, 72.
underlying goal-directedness functioning below the surface. Jonas contends that current evolutionary theory is “compatible with an underlying teleology of the whole train of events.”

An analogy may clarify this concept. I am a purposeful agent. Further, suppose that I am aiming at the goal of being healthy. This goal is not fully articulated; hence, the means by which it can occur are uncertain. However, I trust that my natural bodily reactions may contribute to my being healthy. For example, engaging in good, physical labor may lead to a deeper, sounder sleep. I may react to the work by feeling a more comprehensive fatigue, which leads, consequently, to a restful sleep. Thus, as I continue with such work, I can allow the fatigue to set in and not try to overcome or counteract such sleepiness. I permit myself to experience and follow through with such bodily reactions as they arise. In so doing, I may sleep better, which, of course, can contribute to my being healthy. Furthermore, having rested well, I am less apt to consume coffee in the morning. I thus may refrain from the potentially deleterious effects of caffeine, which, of course, likewise helps contribute to my goal of being healthy.

The reaction of fatigue and the subsequent rest and disinclination to consume coffee does not seem to occur intentionally for the sake of the goal of being healthy. It is a more spontaneous reaction rather than a deliberate response. In short, this sort of reaction, on one level, just so happens to assist the attainment of the goal of being healthy. However, on a deeper level, could we say that I, having set myself a goal and having trusted these processes, positioned myself such that these reactions could in fact assist with the attainment of the goal, albeit without them operating intentionally for the sake of that goal? This manner of my intention and positioning

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157 Ibid.
158 Of course, several caveats must be mentioned here. (A) Excessive physical exertion could harm, rather than foster health. Thus, such work must be kept in proper balance, if health is to be achieved. (B) One could argue that in the end the bodily reaction of fatigue actually is designed for health, so I am, in this case, using a proper means of health, rather than an incidental one. In response, I would say that such a perspective fails to take into account the relation of fatigue to me as a purposeful agent. In essence, what I asserted above was that unlike my intentional and somewhat conscious goal-directedness, the onset of fatigue is a rather spontaneous bodily reaction. Whether or not it
of myself would therefore be analogous to the manner of Nature’s “intention” and “positioning” in the evolution of Life. In short, this analogy is a further articulation of Jonas’s concept, mentioned above, concerning a “generalized . . . ‘purposiveness’ of nature” being realized through a “casual mechanism,” such as natural selection.

Granted, this line of thought is very speculative and not entirely clear. I do not offer it in any way as a definitive interpretation of Jonas but merely as a possible approach of reconciling his sense of teleology with Darwinism. That said, there are, I think, some good reasons to prefer this approach in lieu of the first attempt.

One advantage of this interpretation over the first attempt, is that here we can leave as vague the sort of mindedness and purposiveness at play, rather than giving them a set structure. To be clear, the clarifying analogy of me seeking health does not work well in regard to the fact that I am a fully minded, purposeful agent, whereas Nature, according to Jonas, is not.\textsuperscript{159} Thus, Nature, for instance, could not have a somewhat articulate sense, the way I do, about the possibility of how this process could occur. Nonetheless, with that dissimilarity noted, we still see here that both Nature and I have a non-direct, non-exact consciousness of their respective future events. Just as I do not know how exactly I will be healthy, Nature does not “know” how Life will arise, develop, and complete its evolution. I may be able to imagine certain ways in which I will be healthy, but imagination does not equal cognition. With this interpretation, we do not have the sort of explicit choosing of options known clearly, as was the case with the first interpretation and the book-selection analogy.

\textsuperscript{159} The Imperative of Responsibility, 72. Here Jonas talks about Nature’s actions as “unconscious.”
A second reason to prefer this interpretation concerns Jonas’s contention that evolution does not follow a pre-ordained, systematic blueprint. Thus, any interpretation of Jonas has to allow for the free unfolding of evolution, which prefigures the freedom obtaining in the organisms that result from such evolution. As we have seen, the speculative approach discussed here indicates just such a process that unfolds non-determinately. For instance, I do not pre-arrange a set time, manner, and place to feel tired; I do not force this fatigue. Rather, I allow such a feeling to obtain and have effect within me as it arises. Hence, this interpretation, unlike the first attempt, does not compromise the freedom of evolution and Life.

The third reason pertains to the fact that Jonas does not think of humanity as the necessary, *a priori* end of evolution. As we have seen, the interpretation offered here does not rely on Nature having some well-articulated goal toward which it aims decisively. In fact, the clarifying analogy used refers to a not-fully articulated end state, i.e. being healthy. That is, such a goal—unlike, say, the goal of acceptance into a certain school or job—is not clearly defined, with articulated markers to indicate its realization. Moreover, being healthy is more of a subjective state, present in a particular person, in a manner particular to him. Consequently, we can avoid the problem of the first interpretation in which Nature had explicit, *apriori* goals-in-mind.

Fourth, this interpretation, unlike the first one, does not render Jonas at odds with the central tenets of evolutionary theory. Granted, Jonas offers speculations far beyond Darwin. However, in so doing, he is not doing away with either natural selection or its non-teleological structure. He is not undercutting a main position of Darwin’s thought. Rather, he is offering some explanation of a cause operating outside the normal scope of our biological understanding, which may exercise purposefulness prior to and even through the non-teleological mechanism of
natural selection. It would not, therefore, be an alternative biological reading, strictly speaking, of evolution but rather an account of how the world, in its basic genesis and structure, is ordered to facilitate the ascent of Life. After all, Jonas offers an “existential interpretation of biological facts.” It makes perfect sense for him to posit a vague sort of minded purposefulness at the root of Life, which can help explain why organic existence, as we know it, includes the full working of such mindedness and purposefulness. Thus, in his move “toward a philosophical biology,” Jonas makes claims well beyond biology, as currently understood, but he does not do so by contradicting or undermining such biology but rather by speculating on some sort of basic explanations for it.  

This interpretation—which posits a purposeful Nature operating at an original level in evolution and exercising its efficacy through the workings of non-purposeful natural selection—may be a way of offering some reconciling of Jonas’s thought with Darwin’s.

To close, I need to state that many Darwinians would scoff at this approach. Yet as Jonas himself would say, perhaps such scoffing involves an ontological bias rather than a scientific criticism. One could easily say that such an approach is far too speculative for the grounded, empirical manner of Darwinian thought. However, one could not, on those same grounds, also contend that such speculation is impossible or incoherent, precisely because such scientific grounds do not pertain to the conditions for the very possibility of the world that such science seeks to explain. Darwinism cannot exclude, I think, the sort of speculative approach posited here. Such an assertion, of course, tells us little to nothing about the merits of such speculation,

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160 See, for example, The Imperative of Responsibility, 72. Here, Jonas contends that since there obtains in nature real and robust minded purposefulness, especially as evidenced in human enterprises such as science itself, there likely was some sort of teleology at work in that same nature from the start that allowed for the advent of these fully purposive beings. That is “the proven occurrence of purpose” in nature compels us to understand nature in such a way that can help explain, rather than undermine or deny, the possibility of such purpose.

161 See, for example, Mortality and Morality, 152: “Science does not pronounce” on what “‘can’ or ‘cannot’” obtain metaphysically. See also The Imperative of Responsibility, 72: “natural science doesn’t tell us everything about nature.”
but then again, given this sort of speculative thought and its content, it is difficult to imagine some other, clearly superior approach.

In essence, I see Jonas as a prefiguring of Thomas Nagel, someone who insists on real final- causality operating in evolution, while leaving open-ended the exact manner in which such causality obtains and functions. Perhaps, as with Nagel, the best Jonas can hope to do is show the need for purposefulness in evolution and offer some vague sense of how that purposefulness plays out in evolution. Thus, my speculations have not so much sought to explain how Life evolved primarily or exactly. Instead, I hope to have shown a possible means by which Jonas’s sense of Nature purposefully directing evolution may be consistent with Darwin’s theory, even natural selection.

_Jonas in Comparison to Aristotle and Kant_

These remarks will be brief and on topic. The questions addressed are, of course, quite complex and difficult, but limits of space obligate the following perhaps too precise overview. From the start, we see with Jonas’s thoughts on the teleology of cosmological development and evolution some difference from Aristotle, who posited the stable (perhaps even eternal) nature of species. Jonas himself states, “in the Aristotelian . . . sense there was such a thing as the definitive pattern of a given species,” whereas, in light of evolutionary theory, the “species is only relatively stable.” Hence, Jonas’s incorporation of this evolutionary theory renders him distinct from Aristotle. Jonas is addressing the possibility of goal-directedness obtaining in and informing the development and change of species over time, while Aristotle, given his views on the stability of species, does not even pursue such questions. In addition, unlike Aristotle, Jonas

\[162 \textit{The Phenomenon of Life}, 50, n. 6\]
has no sense of a Prime Mover as the *telos* of motion in the universe. Rather, Jonas, as we noted above, has a tentative sense of humanity (and the Image of Man) as the *telos* of cosmological and evolutionary development. God’s agency here is to get the proverbial ball rolling, not to offer an enduring state that all changeable things seek to emulate.

The biggest point of distinction, however, concerns natural selection and the random mutations “selected” by it. A purely Aristotelian account may not be reconcilable with the idea of natural selection. Consider, for example, Aristotle’s opposition to Empedocles’s concept that organic features could have arisen spontaneously and non-teleologically. Aristotle contends that such features, e.g., teeth well suited for mastication, arise normally or almost invariably in nature. Hence, their genesis must be teleological, since normal or invariable results follow from purposeful action. Yet Empedocles’s idea seems to be a clear precursor to Darwin’s natural selection: a process by which living forms are organized non-teleologically and happen to survive and flourish, although this process is not intentional or purposeful. Insofar as he opposed Empedocles, then, Aristotle would likely oppose Darwin and his view of natural selection. Nevertheless, we just saw that in some way, Jonas might be able to accommodate natural selection in his account of the development of Life. In short: Aristotle’s apparent incompatibility with Darwinian natural selection as an account for the formation of species and organisms indicates, as well, an important point of difference with Jonas’s philosophy.

So Jonas differs from Aristotle in regard to several questions of teleology and evolution, because the latter does not accept many of the guiding ideas of evolutionary theory. Yet, Jonas

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163 See *Physics* II. 8, 198b.
164 Granted, Darwin’s theory is much, much more complex and rests on the assumption of eons of time, incomprehensible to the Greek mind. But with both thinkers, we see that useful and essential features of life arise non-teleologically.
165 Of course, if one were to attempt a discussion on how Aristotle could accommodate Darwin’s thinking, then Jonas may prove helpful. However, such questions lay beyond the scope of this dissertation, since our primary concern is Jonas’s thought, not Aristotle’s.
still does bring in something Aristotelian in his presentation on evolution. Jonas affirms the possibility of some deeper purpose obtaining in and informing the development of Life. This deeper purpose, which may work though natural selection, is not an Aristotelian account, as was made evident in the last paragraph. Nonetheless, insofar as Jonas offers a robust teleology of organisms as well as a vague teleology functioning in nature’s production of such organisms and their parts, then we see a similarity with Aristotle. Recall that Jonas contends that purposeful organisms and purposeful organic parts result from a purposeful process of nature’s production of Life. In this way, Jonas sees the current natural world and the community of Life in an Aristotelian manner. Granted, what Aristotle means by nature’s production of organisms and their parts and what Jonas, in light of Darwin’s theory, means by such production are different positions. However, even given this qualification, Jonas overall does align with the sort of realist and robust teleology that Aristotle offers, a fact that we have seen throughout this dissertation.

What about Jonas as compared to Kant? Kant, as we saw in Chapter Two, posits that insofar as nature can be thought of as a whole, then likewise do we see it oriented toward the rationality and freedom of human existence. Humanity, for Kant, is the completion of nature, and, because of its noumenal features, humanity is also a stage of transcendence beyond nature. In this way, the laws of nature do not fully explain human existence, especially insofar as humanity exercises a freedom not reducible to such laws. Humanity is therefore both the final and ultimate end of nature. Jonas’s thought implies a similar theme. Jonas posits that organic evolution follows from the prior development of the material universe. Both processes, organic and pre-organic, insofar as they are events originating in and informed by nature, are similarly teleological, and they tend, as we have seen throughout this chapter, toward humanity. However,

166 See pages 19 and 20 of this chapter.
167 See The Critique of the Power of Judgment, § 82 -84.
qua morally free, qua equipped with a spiritual intellect capable of contemplating the eternal and the Divine, humanity moves beyond the bounds of the Nature that produced it.¹⁶⁸ For Jonas, like Kant, therefore, humanity is the *telos* of Nature and a move beyond it.

However, an important caveat is called for here. Kant, in his discussion, seemed more focused on nature as it currently exists: a holistic, interconnected system presently operating in such a way as to be completed in humanity. Jonas, on the other hand, focuses more on the *processes* of natural development, such as evolution. Granted, he does contend that in nature as it currently exists, humanity stands as its completion and hence is most worthy of ethical consideration. But, he looks mainly, as we have seen, at the pre-organic development of matter, as well as the evolution of basic life forms all the way up to human beings. Post-Darwin, Jonas, in discussing teleology, pays a great deal of attention to the process of nature rather than merely the current state of nature.

*Summary and Transition*

We now can wrap up our discussion on Jonas’s views concerning the role of teleology in cosmological development and evolution. Jonas affirms that both processes occur for a purpose, albeit in a vague, inarticulate, “meandering” fashion. These are not pre-planned or designed processes but rather follow arduous paths toward their ends. And what do they aim for?

For Jonas, there is an urge, “a cosmogenic eros,” in matter from the beginning toward the novel, the unknown, and toward higher forms of existence. This urge of cosmological development—first implanted in matter by God who subsequently steps aside from this expanding universe—is directed in Nature toward realization. It is a “purposeful tendency” that

moves ultimately toward Life and mindedness. In evolution, moreover, this urge becomes refined and more intense. The genesis of Life represents a first fulfillment of this urge, and then the later genesis of human life represents the complete fulfillment of this urge. More specifically, says Jonas, it is the “image of man” that qualifies as this completion and fulfillment. In this way, moreover, Jonas presents an “ascent of life:” evolution occurs as it does for the sake of there being higher life forms, especially human life. Thus, the “secret teleology” of nature works in both the initial pre-organic development of the universe as well as in the growth of Life itself. In presenting these processes—i.e. the development of the universe and the development of Life—in this fashion, Jonas wrestles with Darwin’s thought and offers some fascinating speculations on evolution. His thought also both differs from and coincides with Aristotle’s and Kant’s. Such, in brief, is Jonas’s view on the external teleology of cosmological development and evolution.

Such, therefore, is also the end of our presenting and attempting to systematize the types of teleology in Jonas’s philosophy. We have traced Jonas’s thought from the teleology of organisms, through the teleology of reproduction, to the teleology of cosmological and evolutionary development, doing so in light of the philosophies of teleology offered by Aristotle, Kant, and contemporary thinkers. We have presented an organized and in depth discussion on the various types of teleology in the thought of Hans Jonas.

However, we still face a further task. Throughout our discussion thus far, we have not often reflected critically on some of the more controversial of Jonas’s positions: e.g., his views on the collapse of the distinction between end and purpose, or his views on how “mind” obtains in organisms and governs their teleology, such that there is a purposefulness of basic life forms and their parts. To complete our discussion on Jonas, we will need to examine such topics. We also need to address the question of whether or not Jonas’s ideas on teleology help to ground his
“ontology of value,” as he hopes they would. Finally, we will offer thoughts on the relevance of Jonas’s thought for both the contemporary understanding of natural teleology in particular as well as the issue of philosophical biology in general. Thus, we will take up, in the following and final chapter, a critical analysis of Jonas’s teleology, as well as an exploration of the possible pertinence of his concepts in contemporary philosophy.
Chapter 6
Critical Analysis and Final Reflections

Now that we have outlined and discussed Jonas’s thought on teleology, our remaining task is to reflect on the possible shortcomings of his approach and to consider the broader applications of both his philosophy of teleology and his overall philosophical biology. In addressing such shortcomings, we will examine several central criticisms against Jonas, seeing if and how Jonas’s thought can respond to these critiques. Such criticisms do not exhaust the possible issues pertinent to Jonas’s philosophy of teleology, but they do, nonetheless, certainly touch on the more controversial claims that Jonas posits. Likewise, the following discussion is not meant to be the final word on the overall tenability and relevance of Jonas’s thought. Nevertheless, given the scope of this current project, we will limit ourselves to such a discussion.

The most significant criticisms against Jonas’s philosophy of teleology are the following: (A) the criticism that Jonas employs an unjustified and untenable notion of “mind” to ground teleology in non-human organisms, (B) the criticism that Jonas collapses the ends-purposes distinction, and (C) the criticism that Jonas’s thought does not address precisely the issue of how plants exercise organic teleology, especially as considered in contradistinction to cybernetic teleology. Such criticisms we have noted throughout this dissertation—for example in Chapter Three, in our discussion on cybernetic versus organic teleology, we discussed Jonas’s apparent failure to consider plant teleology—but now we will offer a more in depth examination of such criticisms, as well as ways in which Jonas could respond to them. In short, the organization of this chapter will be as follows. First, we will address the aforementioned main criticisms of Jonas’s philosophy of teleology. We will also attempt to provide adequate responses to each of these criticisms, employing resources from both Jonas and other thinkers. However, it is not
merely external criticisms of Jonas which we will address; rather, we will also look at how Jonas’s philosophy of teleology agrees with and supports the larger scope of his work. After all, as discussed in Chapter One, Jonas philosophizes about teleology in an ostensive strengthening of such his “ontology of value.” Hence, in the second part of this chapter, we will look at the manner in which and extent to which Jonas’s understanding and use of teleology support his larger “ontology of value.” Third, and finally, we will address briefly the larger significance and relevance of both Jonas’s philosophy of teleology and his overall philosophy of life. Jonas’s thought, rooted in phenomenology and due acknowledgement of the subject-status of organisms, may provide important contributions to both contemporary philosophy and science.

Part I: Critical Analysis

“Mind’s” Grounding of Teleology in Non-Human Organisms: The Problem

Here, we should briefly restate points made previously throughout this dissertation, especially in Chapter Three. Jonas contends that the primary paradigm of purpose is our own human goal-directed activity, which seems to involve deliberate cognition of and response to particular goals. Other forms of purposiveness, both human and non-human, have a basic similarity to this minded purposiveness. In this fashion, says Jonas, there is a continuum of purposiveness throughout the organic community, insofar as “mind” is coextensive with Life and can ground the teleology of organisms. Thus, such purposiveness, for Jonas, hinges on the real

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1 The Imperative of Responsibility, 72.
2 The Imperative of Responsibility, 72-73.
and operational presence of mind (or something like mind) in the relevant organism. Mind, then, or at least something akin to mind, obtains and functions in all organic teleology, human or otherwise.

Jonas, therefore, does not differentiate into radically distinct types the various forms of teleology we have addressed in this dissertation. Jonas does not present a sharp divide between particular human purposiveness and general organic purposiveness. For Jonas, the presence of digestive organs (e.g., pancreas, liver, gallbladder) in an animal and their function of facilitating the absorption of food into the body are purposeful in a manner ultimately analogous to the purposiveness of minded human activity. For Jonas, as well, the structure and activity of basic organisms are purposive in much the same manner. Whereas the instinctual reaction of an animal seems automatic, Jonas posits a comprehensive sense of organic “mindedness” such that these and other related forms and activities of life can qualify as purposeful, in general similar to the purposefulness of minded human agents.

Needless to say, Jonas’s position is controversial. Speaking broadly, it is difficult to imagine plants and lower animals as possessing any sort of mind at all, let alone one capable of governing teleological activity. And in the case of higher animals, though they may possess some basic form of “mind,” such a “mind” does not seem capable of grounding teleology in the manner of the human mind. The immediate and proximity-bound consciousness of higher animals, as well as the possible dearth of such consciousness in lower animals and plants, serves to undermine seriously Jonas’s contention. There is not—at least for the majority of non-human organisms—a clear, articulable, comprehensible, and shareable goal in mind. Such organisms obviously do not

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3 Ibid., 75.
4 Highly trained dogs do not posit a future-indexed goal of, say, having a new brood of puppies, and then act for the sake of realizing that clear goal in mind. Even if a dog could be said to have the goal of eating or excreting, such a goal is not akin to the rich and robust purposes that structure our human existence.
have the ability to generate such goals. These organisms cannot remove and abstract themselves from their environment such that they can posit, bring to light, and act in pursuit of goals in mind. In short: Jonas’s philosophy of organic teleology, which relies on the idea of mind’s coextension with, and functional operation in, Life, appears problem-laden at best and perhaps even untenable at worst.

Of course, Jonas could have avoided this controversy had he adopted a different approach to teleology. Jonas, for example, could have posited a functionalist account according to which language of final causality can be subsumed into the language of other forms of causality. At the very least, he could have restricted teleology to humans and tentatively to higher animals as well. However, Jonas does not adopt any of these or other related strategies, and so we are left with the following dilemma: how can Jonas’s philosophy of teleology be shown to be tenable since it is based on the controversial claim of mind’s coextension with Life?

In Chapter Three, we offered a quick defense of Jonas’s contention, employing there the thought of Leon Kass and Evan Thompson in support of Jonas’s philosophy. Here, we will expand on and augment this defense of Jonas’s thought, using additional resources from various thinkers. To be clear, this response is my own formulation, not Kass’s or Thompson’s, though it does incorporate their ideas. Nor is this response to criticisms against Jonas meant to be exhaustive nor offer the final word on these issues. Rather, we hope to offer the most compelling reasons in support of Jonas, while simultaneously acknowledging the possible shortcomings of his thought. Thus, we will analyze what sort of “mindedness” could function in non-human organisms such that is would be sufficient to ground their purposefulness. We will also examine how in contemplating non-human organisms, we may be led to consider them as minded beings. Finally, we will summarize these discussions and present final thoughts on the overall tenability of Jonas’s
contentions concerning the mindedness and purposefulness of non-human organisms. That said, our first point of defense will be to examine more on what mind may be and how it may function in the case of human purposefulness, which examination will, hopefully, show greater tenability to Jonas’s contention on mind as grounding teleology in non-human organisms.

“Mind’s” Grounding Teleology in Non-Human Organisms: Reflections on Cognition as Embedded

One way to begin this discussion is to consider what teleology looks like in our everyday modes of being. In this regard, we may see that our purposefulness in daily life is not always “conscious intention complete with the idea of the goal.” Our everyday being in the world of tasks, skills, and equipment, of engaging with the ready-to-hand (as well as moving to the present-at-hand), is both teleological and minded, albeit in varying degrees and intensities. To illustrate, let me give the following example. Last summer, I did lawn work at my brother’s house: I mowed, weed-wacked, picked up random pieces of trash, etc. In addition, I took the mowed grass and trash and deposited it into a nearby dumpster. At that point, the dumpster cover was open, but my brother had asked me to close and lock the dumpster, after I had finished depositing the debris in it. The cover for the dumpster had a metal bar over it and attached to the bar was a short metal chain, and on the chain was a lock. Merely closing the lock on the chain would not prevent the bar from being moved off of the cover and hence the cover from being lifted. I then figured out that the chain went through a small hole in the side of the dumpster, below which the lock was secured in place, thus preventing the chain to which it was attached—as well as the bar and ultimately the cover—from being moved. I was able to navigate this task—of collecting and throwing out lawn debris—

5 Ibid.
skillfully. At subsequent times, moreover, where I had more trash to deposit, I was able to perform, readily and easily, this task of unlocking and locking the dumpster. However, it was not the case that my skillful navigation involved any sort of high level reflection or awareness. I did not abstract from my work to gain some greater consciousness of it. I did not remove myself physically from the environment and think deliberately about how to solve the problem. Rather, put colloquially, I got the hang of it as I went along. I adapted while engaged in my work. I was involved in the world, and yet I was still able to learn and perform a certain skill that allowed me to complete the overall task with which I was engaged.\footnote{In this regard, according to Heidegger, I likely experienced a change from the ready-at-hand to the present-to-hand, insofar as the equipment,—i.e. the dumpster and its lock— did not work easily on my first encounter with it and I had to address it directly as such. In this way, it stood out more forcefully in my conscious engagement. However, I would also add that I did not articulate to myself or anyone else anything about the dumpster and the lock as such. I did not pause and wonder about the objects. Rather, I used a more focused form of consciousness to solve a particular problem. Thus, we can grant this is a present-to-hand event but a basic, immediate type.}

Three issues are of particular significance here. First, my activity was obviously intelligent. I figured out how to perform a certain activity, doing so on my own. Indeed, it was the sort of learning that quickly became ingrained, such that I could perform again the same activity just as well at any later time. Second, this intelligent behavior was not done abstractly or formally. There was no instruction or manual demonstration on how to lock and unlock the dumpster. There was no point at which I really removed myself from the task at hand. This might be a form of what Hubert Dreyfus calls “everyday expertise.”\footnote{Hubert Dreyfus, “Overcoming the Myth of the Mental: How Philosophers Can Profit from the Phenomenology of Everyday Expertise,” \textit{Proceedings and Addresses of the American Philosophical Association}, 79.2 (2005): 47-65} Third, the behavior—i.e., of learning to unlock and actually unlocking and locking the dumpster—was obviously teleological. It was part of a larger task and was done for the sake of completing that task of the lawn work. (Indeed, the completed lawn work belonged to a larger context: it was done for the sake of my brother having a well-cared for piece of property.) This activity was not performed absent any reason or randomly. I acted as I did in a certain context because of a certain goal toward which I was working.
In short, we can say the following: our minded, purposive behavior is often contextual, immediate, grounded, and non-conceptual. We are aware of and respond to the contours of the situations in which we are involved. We have a proper feel for the “landscape on the basis of which skilled coping . . . takes place.”

Insofar as we are embedded and skillful in our environments, we enact purposive behavior, not via an abstraction from our circumstances but rather by obtaining and directly adhering to a clearer sense of what we should do (although such a sense often is not a well-formed idea that we can state, discuss, and intend as such). In other words, we do not exercise minded coping by formulating and acting upon representations. Instead, while constantly engaged in a specific context, we respond consciously and directly to it and may well achieve the ends proper to that context (e.g., a well-cared for lawn).

Certain goals are already implicit in our engaged being-in-the-world; such goals are always already before us, whether or not we have predetermined them. It is not the case that we need to render this or that goal explicit in order for it to have causal efficacy in our activity. On a fundamental level and in predetermined manner, we are involved in larger contexts (e.g., a social context), which inform, govern, and lead us toward the sorts of goals positioned as ends to our actions. In other words, “we are . . . always already in a world that is organized in terms of our

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8 Ibid., 53.
9 Dreyfus talks about how the “the master may make moves that are entirely intuitive and contrary to any preconceived plan. In such instances, when asked why he did what he did, he may be at a loss to reconstruct reasoned account of his actions,” although they achieved the sought after goal, e.g., winning a chess match. (Ibid., 54) Dreyfus also contends that “as far as anyone could tell, the experts weren't following any rules at all.” (Ibid)
10 Ibid., 52-53. “If the learner stays involved, he develops beyond competence by sharpening his perceptual ability to make refined discriminations. Among many situations, all seen as similar with respect to a plan or perspective, the expert learns to discriminate those situations requiring one reaction to succeed from those demanding another. That is, with enough [involvement] in a variety of situations, all seen from the same perspective but different tactical decisions, the expert, without awareness of the process, gradually decomposes this class of situations into subclasses, each of which requires a specific response. This allows the successful response that is characteristic of expertise.” Likewise, “we respond to affordances in [a] situation specific way when we are intensely involved in what we are doing, as when negotiating a dangerous intersection. (Ibid., 56) To be clear: Dreyfus is not explicitly talking about goal-directedness, but in talking about “coping,” “expertise,” “mastery,” etc. he is obviously discussing teleological activities that are realized (or not) according to the proper exercise (or not) of such “coping,” “expertise,” and “mastery.”
bodies and interests and thus permeated by relevance.”¹¹ We exist as “being-projected-beyond [ourselves] in the world that is proper to human existence,” which mode of being “is presupposed by (and thus [is] more fundamental than) the phenomenological notion of intentionality as mental directedness.”¹²

Bringing in Aristotle’s thought here, could we say the following: in virtue of our nature as social and political animals, are we always already involved and invested in such contexts “proper to human existence” that in turn structure much of our basic teleological activity? To quote from Alisdair MacIntyre, we enter “upon a stage which we did not design and [on which] we find ourselves part of an action that was not our own making.”¹³ Obviously, we would be stepping beyond Heidegger’s thought, although we recall that Jonas himself, in moving beyond Heidegger’s philosophy, made recourse to Aristotelian concepts. In any case, we seem justified in at least the following assertion: much of our everyday minded, purposive behavior is rooted in our already having been “thrown”, through no deliberate determination of ours, into larger contexts, such as society, which contexts also seem to tie back to our basic human nature. Given our nature, we always already exist in such contexts, and given such contexts, we readily, if not immediately, enact conscious, teleological activity. Our awareness in our everyday being in the world leads us to be cognizant of and properly responsive to our world in a manner aimed at the realization of certain goals, albeit not in an explicitly deliberate or intellectual fashion.

Nonetheless, we should return to Jonas’s thought and ask: is this sort of minded activity at all germane to the activity of non-human organisms? In order to demonstrate the analogy of such behavior to animals and plants, several caveats are necessary. (1) The minded, skilled behavior

¹¹ Ibid., 49.
¹² Evan Thompson, Mind in Life, 157.
performed by humans is more complex than what animals can do (as indicated by the fact that the lock was in place precisely to prevent raccoons from getting into the dumpster!) Likewise—at the risk of belaboring an obvious point—such skilled behavior is very far removed from the activity of plants. (2) The ability to articulate and teach clearly (i.e., linguistically) this skillful activity pertains only to humans. (3) The larger context of lawn work is a human-specific; animals do not care about the appearance of their habitat (nor drive cars or play chess, to reference Dreyfus’s examples). Nonetheless, with these caveats stated, we will still try to show that non-human organisms, in their own dynamic being in their environments, may evince “mindedness” that is similar to the type discussed above and is similarly capable of grounding purposefulness. We will use the phrase, “embedded awareness” to refer to this direct, non-conceptual, contextually structured, and activity-laden awareness exercised in purposeful “everyday expertise.”

Interestingly enough, Dreyfus himself contends that “in their direct dealing with affordances [i.e., contextual opportunities, such as a door through which one can walk] adults, infants, and animal” all exercise a similar sort of embedded awareness. As Renuad Barbaras contends, “the animal is characterized by a kinship and intimacy with the world, by the fact that its movements . . . are deeply inscribed in that world [contextually determined, we could say] . . . It is because of this closeness with the world that the animal reveals abilities of orientation and perception . . . that seem extraordinary from our point of view.” Animals exhibits the sort of skillful coping that Dreyfus so aptly analyzed; in fact, they do so, in certain contexts, to a degree almost unfathomable to our human understanding.

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14 I.e., It is awareness rooted in, causative of, and in some senses constituted by activity.
17 It is worth noting that although Dreyfus employs many ideas from Heidegger in his articulation of non-conceptual, skilful, everyday coping, Heidegger himself may not agree with most of Dreyfus’s conclusions. For instance, Heidegger, unlike Dreyfus, would not think that animals and humans respond alike” in terms of their
To begin to see how this is so, consider first Dreyfus’s example (taken from Charles Taylor) of the manner in which one “‘navigates [one’s] way along the path up the hill.’”18 This hiker manages his way over “‘obstacles’” and responds appropriately to the environment’s “‘invitations to tread more carefully,’” all the while “‘not thinking of these’” affordances directly or conceptually.19 Yet this sort of immediate, non-conceptual, and grounded (pardon the pun) skillful navigation pales in comparison with similar navigation exercised by animals, i.e., their “extraordinary abilities.” As I have often observed, squirrels can—easily, readily, and swiftly—manage their way over, under, and through numerous “obstacles,” such as fences, downed tree limbs, huge tree trunks, distances of twenty feet between branches on adjacent trees, and even cars. In fact, I have seen a squirrel perform this sort of skilful navigation while holding its newborn baby, i.e., its kit, in its mouth! Because of their aforementioned “intimacy with the world,” they enact a purposive embedded awareness akin to the human phenomenon discussed above.

But this type of animal skill extends beyond merely managing their way in regard to obstacles; it can also be seen in the animal’s capacity for orienting itself in a proper direction. An experiment done in the 1950s “with caged starlings . . . found that their movement [in the cage] was, in fact, the proper migratory direction” of starlings raised in the wild.21 Interestingly enough, this properly oriented movement occurred only on days without overcast when the starlings could see the sun. Hence, these birds, although raised in captivity, possessed a “sun-compass orientation,”22 that is, “an extraordinary ability” to connect mindedly with the world consciously,

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19 Ibid.
20 I.e., their deep connectedness and sensitivity to the world and capacity to follow immediately the contours of this world in their activity.
21 Robert Wallace, Jack L. King, and Gerald P. Sanders, Biosphere: The Realm of Life, 2nd ed., (Glenview, IL: Scott, Foresman and Company, 1989), 699-700. This also gives lie to the usual disdain shown these remarkable birds.
22 Ibid., 700.
non-conceptually, immediately, actively, and skillfully (although, because of their being caged, they could not carry out that properly oriented migratory motion.) Another example worth considering concerns the “extraordinary ability” of animals to “start at place A and find place B.”

This homing instinct to locate and navigate to a specific place, rather than just in a proper direction, we see enacted by the European eel, for instance. This eel “begins life in the Saragasso Sea, southwest of Bermuda, and then follows the Gulf Stream in a three-year odyssey that carries it to the coastal waters of Europe.” After living for approximately ten years in “rivers and streams” along the European coast, the eels “return to the Saragasso breeding grounds.” They find their way back, over thousands of miles of ocean, to the proper place for breeding, cueing and responding to the affordances they encounter. Dreyfus’s example showed Charles Taylor able to navigate his way skillfully up a (presumably marked) path; this current example shows eels able to navigate their way skillfully over the vast reaches of unmarked ocean. It really is an “extraordinary ability” of such animals to exercise responsive, embedded awareness and concurrent skilful activity in the world. In fact, it may well indicate the operation of an organic mindedness sufficient to ground purposiveness.

Our next task is to consider if and how this sort of embedded awareness could obtain in plants and ground their teleology. As a first example, consider how tree roots grow. Root growth in trees through the soil is seemingly adaptive: the roots must respond to the environment—i.e., the location of nutrition, obstacles in the way of obtaining that nutrient-rich soil, etc.— and alter their growth accordingly. “If the root encounters toxic substances, impenetrable stones, or

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23 Ibid., 701. Emphasis added.
24 Ibid., 702.
25 Ibid.
saturated soil,” it will make “the necessary adjustments.”²⁶ In other words, the tree’s internal impetus for growth is insufficient to account for the exact manner in which its parts, such as roots, actually expand and develop. There is a context-specific (environmentally informed) mode of development, in which the organism performs a constant, dialectic-like engagement with its environment. In fact, this dialectic mode of plant-existence can be seen in other types of growth. “The dandelion can grow and flower almost any time, even during the weak sunshine of winter. Despite nearly incessant growth, it never grows above the soil surface, its roots pulling it down. By this strange negative growth it avoids an erect form. Clinging to the interface between earth and sky allows it to benefit from the more moderate conditions there than those experienced by erect plants.”²⁷

Francis Hallé notes that “trees on riverbanks are adapted to . . . floods [that could destroy them]. . . They lose their leaves, slow their metabolism, waiting, months if necessary, for the water to retreat. They come out of their sleep, grow again, and put out new foliage.”²⁸ Peter Wohlleben discusses the converse situation, namely how trees respond to an environment that has a possible shortage of water. Spruce trees in such areas will, in the rainy winter season, “stockpile water.”²⁹ Not only that, but the trees exercise “restraint,” and “ration water instead of pumping whatever is available.”³⁰ Spruce that “pay attention” in this manner and respond accordingly to the seasonal variations of water supply, even while growing on “dry, stony, south-facing slopes,” will “survive even extreme years fairly well.”³¹ This “thrifty” and environmentally responsive “behavior”³² is, according to Wohlleben, evidence of the fact that “trees are capable of learning.”³³ In short, the

²⁸ Ibid., 188.
²⁹ Peter Wohlleben, The Hidden Life of Trees, 43.
³⁰ Ibid., 44-45.
³¹ Ibid.,
³² Ibid., 45.
³³ Ibid., 47.
dynamic existence of trees is enacted in dialogue with their environments and involves, on the part of the trees, a comprehensive adaptiveness of their many parts and functions. The tree alters its basic functions, such as metabolism or hydration, for the sake of surviving the increased or diminished levels of water. These trees reorient their mode of being in the world in light of the relevant and most pressing factors of that same world, doing so for the sake of surviving until more optimal environmental conditions allow them to flourish in their kindedness. Perhaps we could say the tree figures it out as it goes. Perhaps, too, this manner of plant responsiveness and teleology may be similar to the everyday awareness and purposiveness we discussed above.

At this juncture, we should reconsider Jonas’s contention that organisms, by nature, have their vital needs set as ends. In virtue of being a certain kind (a maple tree, an amoeba, a tarantula, a lion), an organism is already oriented toward its basic goals. The parts, fundamental processes, and overall structure of the organism are directed, for example, toward obtaining nutrition. These vital ends are unchosen, precisely because the organism is positioned relative to such ends in virtue of its nature, not in virtue of any activity or awareness on its part. Does this contention by Jonas undermine his other position that organisms are mindedly purposive?

The short answer is no. After all, as we discussed earlier, minded and purposive human behavior, especially in our everyday being in the world, seems to result from both the giveness of our nature and the giveness of certain contexts into which we are thrown. As noted before, we are always already involved and invested—mindedly and purposively—in situations and settings toward which we exercised little or no deliberation or intention and to which we often readily, if not immediately, find ourselves committed. Granted, the contexts that arise from the nature of non-human organisms are much different from and less complex than the contexts of our human being

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34See the Imperative of Responsibility, 84, n.4.
in the world. Social norms about lawn care and the social stratifications expressed by such care are just two of the many contexts specific to human being in the world. Nevertheless, while acknowledging such specific differences, we still see that non-human organisms are always already, in virtue of their natures, also embedded in certain contexts. In a manner analogous to our everyday being in the world, such organisms enact a basic, contextually determined, minded responsiveness for the sake of certain goals. The contextual predetermination of these sorts of goals does not, in the case of humans, undermine the intuitively obvious fact of minded teleology being exercised. Perhaps we should think that such predetermination likewise fails in regard to the minded goal-directedness of non-human organisms.

If so, then the animals and plants discussed above—e.g., the starlings “knowing” which way to migrate, the spruce trees “learning” how to preserve water—in their being in the world, exercise a minded purposiveness similar in kind, though obviously not in content, to the minded purposiveness of human beings. Leon Kass, has drawn a similar conclusion about the “discriminate awareness” requisite for the “discriminate action” of organisms “in . . . seeking nutrition [i.e., a vital end].” Kass posits that “‘awareness’ . . . [can] encompass all forms of openness and receptivity and sensitivity . . . Sensing, perceiving, imaging, cognizing . . . intellecting—all these are species of awareness . . . Awareness need not be self-conscious or even conscious to be awareness.” Hence, we see again the idea of a formal similarity between the mindedness (and by extension minded purposiveness) of human being in the world and the mindedness and (and by extension minded purposiveness)—understood broadly—of non-human organisms in their being in the world.

35 The Hungry Soul, 45.
36 Ibid.
To be clear: the argument here is that animals *and* plants both exercise minded purposefulness in their respective interactions with their environments. The “formal similarity” noted above concerns the fact that the same sort of general structure—non-conceptual but still environmentally attuned and responsive organic activity for the sake of certain ends, what Kass called “awareness”—obtains in both plants and animals. Granted, the animal’s minded and purposeful behavior, especially in examples such as orientation and navigation, is different from and likely more complex than the minded and purposeful activity enacted by plants. And of course, both such types of minded activity differ greatly from the minded purposefulness of humans. Nonetheless, the main point still holds: it makes sense to posit, as does Kass, that there is a general form of awareness such that divergent “species” of non-human activity still qualify as instances of awareness. The organism’s, be it a plant or an animal, interacts with its environment in a “minded” manner.

We can provide further insight into this issue of minded interaction with the environment by turning to the thought of Evan Thompson, who, as he often does, provides a helpful presentation of Jonas’s philosophy, especially in dialogue with contemporary ideas on cognition and organic existence. Thompson argues that “cognition is behavior . . . in relation to meaning and norms that the [living] system itself enacts or brings forth on the basis of its autonomy.”\(^{37}\) Nevertheless, “autonomy, far from being exempt from the causes and conditions of the world, is an achievement dependent on those very causes and conditions. . . . The organism is in and of the world, and its identity has to be enacted . . . in the assimilation of and accommodation to that world.”\(^{38}\) The organism is adaptive and responsive to the world. In this way, “living beings shape the world into

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\(^{37}\) Evan Thompson, *Mind in Life*, 159.  
\(^{38}\) Ibid., 150.
meaningful domains of interaction.” Yet insofar as this shaping depends on the causes and conditions of the world, then the norm-laden and meaningful environment rendered by the organism does not result from the organism acting in total isolation and then imposing its considerations on completely generic matter. The world is not a totally blank slate on which the organism enacts the drama of its own solitary existence. Something becomes environmentally meaningful for the organism because it, in the manner in which it obtains in the world, can become so for the organism, and the organism relates to it as such.

The cognition-enacting organism, which is aware of and accommodating to the world around it, enacts this cognition for the sake of its very identity in and of the world. In this regard, “living beings embody an immanent purposiveness.” For the organism, there is a proper mode of teleological activity in and toward the world, both in forming its environment and in the “dialectical relation” it enacts with that environment. The organism has a naturally given yet still cognitive manner of interacting optimally for the sake of survival and flourishing.

In which case, we can recall the notion from above about a properly human world in which we are embedded and in which we exercise minded purposefulness. We are also reminded of the fact that a given context that is rooted in a given nature structures basic but still conscious teleology in our everyday existences. Thompson’s in-depth analysis of the structure of organic existence

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39 Ibid., 154.
40 To be clear: Thompson, in this context, sees “environment” as different from “world.” The former refers to the direct and most meaningful context germane to the organism in and through which it exists as such. Holes dug in the ground for the safekeeping of nuts in winter are part of a squirrel’s environment. On the other hand “world” refers to the totality of things, the generic context around this organism (and indeed, around all things). A specific environment is formed by an organism responding to the opportunities laden in the world, such as ground soft enough for holes to be dug in.
42 Ibid., 148.
43 Ibid., 150.
44 I.e., determined in large part by the conditions of both the species to which it belongs and the world in which it exists.
implies that much the same phenomenon obtains for all living things in their dynamic enactment of identity and sense making—that is, their continued existence and their formation of a significant environment, qua teleological activities, are done in response to set contexts (understood broadly to include the world itself, an organic milieu, etc.) that inform and govern purposiveness. Mind, understood as a mode of responsive awareness and activity, is thus operative in the goal-directedness of organisms. Purposeful lawn care enacted with embedded awareness may be akin or at least analogous to basic organic activities enacted with a similar environmentally bound embedded awareness.

Before we proceed, one point from the preceding discussion requires further clarification. Thompson, as we saw, conceives of mind as the enactment of certain responses by the organism toward the world and toward its environment. Mind, for him, is constituted by its activity; the modality and structure of that activity is commensurate with the modality and structure of the mind. Mind does not function removed from action, in that, as we saw above for Thompson, such actions (or “behavior”) is what “cognition” is. (As we shall see presently, Merleau-Ponty also invokes this notion of consciousness as constituted by activity in the world.) Dreyfus does not conceive of mind in the same manner. He is more concerned with articulating how we skillfully and consciously cope in our everyday worlds in a direct and non-conceptual manner. In fact, Dreyfus discusses mind as being conceptual.45 That is, the exercise of mindedness involves the enactment of, response to, and use of concepts. Finally, Jonas himself would perhaps disagree with both thinkers on what constitutes mind. Contra Dreyfus, he thinks of mind as co-extensive with Life46 so it cannot be always conceptual, and contra Thompson, he does not talk of mind as being its activity. In short, we do not see, in this attempt to defend the tenability of Jonas’s ideas on mind

46 The Phenomenon of Life, 1
as grounding organic teleology, one generally accepted understanding of mind that informs our consideration of the possible presence and operation of mind in the purposefulness of non-human organisms. Rather, we see several different thinkers with different assumptions about mind, all of whom, however, point to the same general fact: the exercise of purposeful embedded awareness—be it through mind as action or through non-conceptual cognition and skillful response—seems similar in humans and in non-human organisms, even plants.

That said, we can close this section by examining Merleau-Ponty’s analysis of a soccer player and his exercise of mindedness.

For the player in action, the . . . football field is not an “object,” that is, the ideal term which can give rise to an indefinite multiplicity of perspectival views and remain equivalent under its apparent transformations. It is pervaded with lines of force (the “yard lines”; those which demarcate the “penalty area”) and articulated in sectors (for example, the “the opening” between adversaries) which call for a certain mode of action and which initiate and guide the action as if the player were unaware of it. The field itself is not given to him, but present as the immanent term of his practical implications; the player becomes one with it and feels the direction of the “goal,” for example . . . At this moment consciousness is nothing other than the dialectic of milieu and action.47

Here, Merleau-Ponty articulates how this player seems to merge with the field of play; there is not a subject-object split between him and the field. He does not cognize the field in some abstracted manner or with concept-laden awareness. The player’s awareness, this “dialectic of milieu and action,” is immediate and involved; it is oriented teleologically (in fact toward an actual goal), in virtue of that same milieu. Thus, Merleau-Ponty makes clear the sort of contextually determined, activity-structured, and goal-directed mindedness that we have discussed in regard to non-human organisms. Such organisms, like the soccer player, inhabit and connect mindedly with their set milieus that move them toward designate ends. Viewed in this manner, it begins to make much

more sense to argue, as does Jonas, that non-human organisms exercise sufficient mindedness to be teleological.

“Mind’s” Grounding Teleology in Non-Human Organisms: The Wonder of Non-Human Organisms and their Possible Mindedness

The phenomenological issue of modes of apprehending the world is also germane to our overall discussion. The relevance lies in the fact that the way that non-human organisms can be given in our experience will likewise lead to considerations of their status as possibly “minded.” Thus, in this section, we will analyze how organisms, as objects given in what we could contemplative intentionality, are likewise made present as possibly minded. In contemplating organisms, we may come to encounter their minded way of being, which is not completely distinct from our own. Hence, this discussion on the contemplation of organisms will give credence to the mindedness (and thus minded purposiveness) of non-human organisms.

To flesh out this situation, we can begin by looking at the thought of Martin Buber on the “I-Thou” relation. Buber begins this analysis by describing various ways he can encounter a tree. First, Buber could “look at it as a picture.” Buber likewise mentions that the tree can become an object of scientific study: “I can subdue its actual presence and form so sternly that I recognize it only as an expression of law . . . in accordance with which a constant opposition of forces is continually adjusted.” Likewise, “I can classify it in a species and study it as a type in its structure and mode of life.” This biological approach, unlike the pictorial or physics approach, treats the

48 “Contemplative intentionality” refers to a receptive, patient, and almost meditative taking in of the world around me. Here, I “sit quietly, doing nothing,” as the Zen proverb recommends, letting the wonderful beings of the world, (perhaps especially the natural world) become present to me in their wonderfulness.
50 Ibid.
51 Ibid.
tree qua organism, a living thing. One may be tempted here to state that such a biological perspective is sufficient for obtaining a proper sense of the tree as such. Nonetheless, this approach still reduces the tree to a certain category, still renders it an object. Even the biological view of the tree does not exhaust the manner in which someone can relate to it.

Consequently, Buber posits that “it can . . . also come about, if I have both will and grace, that in considering the tree I become bound up in relation to it. The tree is now no longer It.”

Somehow, the tree becomes a real other for me, not just an object I can regard. “Everything belonging to the tree is in this: its form and structure, its colors and chemical composition, its intercourse with the elements and with the stars, are all present in a single whole.” This term, “single whole,” is key. Here, I am co-relative to something non-reducible and holistic, with its own, real ontological integrity. In a manner quite “different” from the physical or biological experiences of the tree, the tree now exists “over against me and has to do with me.” The tree as such, in the depth, fullness, and wholeness of its own being, is in “relation” with me, “as I with it.” In this manner, I encounter and relate to the tree in the depth, fullness, and wholeness of my own being. In fact, says Buber, because the depth of my being, by which I relate to the tree, is personal, I am led to ask: “The tree will have a consciousness, then, similar to our own?” Granted, Buber does not answer affirmatively to this question, but nor does he answer no, either. He leaves it open, because he thinks that only by allowing such openness to trees can we relate to them as such. We have to allow for that possibility, says Buber, so as to avoid “disintegrating that which

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52 Ibid. “In all this the tree remains my object.”
53 Ibid.
54 I and Thou, 6-7.
55 Ibid., 7.
56 Ibid.
57 Ibid.
58 He says, “I have no experience” of the tree as conscious or not conscious. Ibid., 8.
cannot be disintegrated.” In this manner—by allowing for such possibilities, by refusing to treat the tree as merely an object, and by letting the tree present itself as such to me—“I encounter no soul or dryad of the tree, but the tree itself.”

Thus, a personal and contemplative gaze makes present in one’s consciousness organic beings that seem to possess holistic non-reducibility as well as genuine interiority. The tree stands before Buber in manner similar to how another human being may be present to him: a “Thou” rather than merely an “It” and perhaps even a “someone” rather than merely a “something.” A being existing as such in its own manner that nonetheless leads one to wonder at its potential state of consciousness: such is the tree as encountered by Buber.

Buber scholar H. Paul Santmire offers a helpful discussion on Buber’s positions. Santmire posits that, in virtue of this contemplative gaze, the tree is given to one “directly with an exclusive claim,” such that it “stands before me in its own right.” Additionally, the tree “exhibits a certain mysterious activity: I cannot fully predict how . . . [it] will be from moment to moment.” Consequently, the person encountering the tree in this manner will find himself in the “mood of wonder,” which “includes, first, a person’s total attention.” The person adopts here a “willingness to forget preconceptions of what the” being “is or should be.”

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59 Ibid.
60 Ibid.
62 Ibid. Emphasis original.
63 Ibid. Emphasis original.
64 Ibid. We see a similar set of ideas in the work of Francis Hallé. “In the humid Tropics, members of forest tribes are unanimous in considering plants as, in a certain sense, persons. . . In Europe [and the west generally] such an idea is shocking. But who must believe in it: westerners who deny the personalities of plants without ever having given them much attention, or shamans who have lived their entire lives in contact with the most diverse floras on the planet? The latter have formed close connections with thousands of plants, who for them are like family and who have become their accomplices. I am not aware if plants have personality, but I ask myself, Who has the most authority on such a subtle topic?” In Praise of Plants, 302.
Thus, the contemplator attends, in an open and absorbed manner, to the living things before him. Such was precisely my experience last fall while watching an enormous flock of geese on a nearby lake. Numerous questions arose concurrent to this attentive gaze. How is it possible for these geese to navigate from upstate NY to Virginia? How do they know how to land so well on the water? What is their experience of landing on water with thousands of geese adjacent? What are their honks meant to communicate? How can they discern individual honks among such a cacophony? In this way, I truly began to imagine what it might be like to be a goose (with due apologies to Thomas Nagel). I was led to consider the manner of interiority by and through which the particular goose in front of me existed in the world. I began to consider the goose as subject-like, an entity with its own perspective and way of being in the world. My reflection led to the position—held at least momentarily—that the goose had to possess a considerable degree of consciousness and intelligence in order to fly, land, take off, communicate, and exist in a “goose-like” fashion. The goose was obviously exercising much more than mere instinct or innate reflex. This goose I was looking at had to be pretty damn smart in order to accomplish such tasks. I reflected that this goose, therefore, had to be a minded, subject-like being, which was similar to me in some real way. In short: open attention leads to Jonas-like speculations on the natural world and the “consciousness” obtaining therein. Even quite apart from writing about the possibility of organic mindedness, a genuine contemplation of living things led directly to that same position on the potential operation of mind in the natural world.

Of course, one could respond here that this wondering about the possible mindedness and interiority of non-human organisms is nothing more than an unjustified anthropomorphizing. According to this line of thought, we could just as easily imagine artifacts, e.g., tables, chairs, and desks, as possessing person-like features. Thus, the intuitional of a non-human entity such that it
may be minded is just an imposing onto intentional objects qualities germane only to the perceiving subject. The common trope of Disney films, which sees teacups come to life and assume full-fledged personal traits, would therefore be similar in kind to the aforesaid encounters with trees and geese. Both the trope and the encounters are essentially flights of fancy rather than adequations of the mind to reality.

This criticism, however, fails to consider the contemplative nature of the previously examined intuitions. Buber’s approach to the tree is decidedly receptive: his mindset is to allow the tree to present itself to him as such. He wants to avoid any disintegrating analysis of and perspective on the tree. Similarly, my line of questioning about and attempt to achieve insight into the being of the goose was predicated on many minutes of still attention. I was present with the experience of the geese, and in that experience, I was led to wonder. On the other hand, no amount of quiet, meditative attention toward inanimate objects has led to similar lines of questioning. The being of a desk may lead one to reflect on its beauty, its mode of production, and the story of its being made, but the desk, as such, does not open up subjective depths for our due consideration. Such depth, rather, lies in the persons germane to it (e.g., my friend who previously owned it) but not into the possible selfhood of the desk per se.

There is also the issue of organic response which helps rebut the criticism of undue anthropomorphizing. By organic response I mean the way in which an organism responds to the type of intentionality that humans direct toward it. Viki Herne offers a striking example of this phenomenon. Herne states that talking to and about animals in a “morally loaded language [e.g., the language of value, care, normativity, etc.] . . . enabled the good trainers to do so much more [than those who did not employ such language] . . . in the way of eliciting interesting behavior.
from animals.”\textsuperscript{65} For instance, says Herne, it is important to address a dog such “that the dog has the ‘right to the consequences of his actions.’”\textsuperscript{66} In other words, the dog has the right to be understood, talked to, and treated as a real agent, a center of action, capable of commencing, altering, or terminating its own action through its own agency.\textsuperscript{67} According to Herne, when one relates to a dog in this manner, it can lead to “instantaneous, accurate, and powerful” responses executed by the dog, which are “spectacular performances.”\textsuperscript{68} In short, by being included as a participant in the sphere of morality and reason, a dog “is transformed.”\textsuperscript{69}

Nonetheless, no amount of imaginative anthropomorphizing can elicit such transformation from artifacts. The functioning of my car does not depend at all on how much I look lovingly on it and talk kindly to it.\textsuperscript{70} Whereas, in the case of animal-human relations, a change in awareness could lead to a corresponding change in behavior, no such correspondence exists in our interactions with artifacts.\textsuperscript{71} Hence, the speciously anthropomorphizing, organism-directed intentionality that we discussed above is not similar in kind to the flights of fancy that imagine teacups as personal. The former intentionality may enable changes in external reality, whereas the latter generates changes merely in someone’s imagination. Seeing living organisms in their depth is not commensurate with imposing personal qualities on inanimate objects.

\textsuperscript{66} Ibid., 44.
\textsuperscript{67} Obviously, a dog is trained to follow commands. However, the dog is a participant with the trainer (or owner) in the collective action of playing fetch, for example, or going for a walk. The dog is present and cooperative with the trainer (owner) and is not some mere mechanism just carrying out the instructions of the trainer.
\textsuperscript{68} \textit{Adam’s Task: Calling Animals by Name}, 47-48.
\textsuperscript{69} Ibid., 74.
\textsuperscript{70} Granted, my mode of interaction with the car may inform how I work on the car, which in turn will affect its functioning. However, the mode of awareness “transforms” me and my work, not the car as such.
\textsuperscript{71} And, according to a recent experiment, it may even be the case that the frequency of talking to plants, as well as the tone of voice used and the type of words said, may influence the growth of such plants. “Ikea conducts bullying experiment on plants—and the results are shocking,” Global News, globalnews.ca/news/42175494/bully-a-plant-ikea/. Accessed 09/05/2019.
We can close this section by offering a final word on this issue of seeing life. As Jonas says, “life is known by life.” The living human being, by enacting due contemplation of the natural world, may thus encounter in it other life forms surprisingly akin to his own. The phenomenon of non-human life, when allowed to be given directly, openly, and attentively, yields considerations and questions of mindedness quite similar to those posited by Jonas in his understanding of the teleology of organisms. Of course, deep wonder at the possibility of a tree’s consciousness or a goose’s interiority do not, in any way, prove the existence and operation of such features in these sorts of organisms (nor in non-human organic teleology in general). But proof has not been our burden to produce. Rather, as stated earlier, we wanted to offer cogent reasons in support of Jonas’s contention on mindedness obtaining in non-human organisms and grounding their purposefulness. And, we contend, this articulation of non-human organisms, in their status as objects of contemplation, has done precisely that.

“Mind’s” Grounding Teleology in Non-Human Organisms: Final Thoughts

The remarks to close this section can be brief. Jonas’s contention that the purposefulness of non-human organisms is rooted in the mindedness of such organisms is an undeniably controversial claim. To defend the reasonableness of such contentions we needed to bring in various theories and concepts, some of which are themselves open to criticism (e.g., Thompson’s extension of mind with Life). In this regard, there is likely not a generally accepted and intuitively obvious point of view from which we can formulate a convincing defense of Jonas’s thought. In

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72 The Phenomenon of Life, 70.
73 A point of view affording intuitively obvious contentions would be, for example, our ability to see the sky directly. In this manner, were someone to claim that the sky, on a particular day, is some particular color, then his interlocutors could easily observe the sky and form judgments that either validate or invalidate his claim. Nonetheless, the existential make-up of an organism, unlike the sky, does not offer such a point of view.
our understanding of the organism, we cannot just find the right spot, see clearly a state of affairs, and then, pursuant to such seeing, adjudicate the reasonableness of particular biological claims. Hence, put poetically, a possible cloud of suspicion will likely always hang over Jonas’s thought on the minded purposefulness of non-human organisms.

Jonas’s mode of discussing minded purposefulness in non-human organisms is also to blame for this continuing doubtfulness concerning his philosophy. After all, Jonas begins his primary work on philosophical biology by merely asserting, rather than arguing for, the coextension of mind with Life.\textsuperscript{74} Granted, he does subsequently argue for that position, mainly through his examination of emergent monism and the idea that real—rather than merely epiphenomenal—features of humanity must obtain throughout all Life. This line of reasoning is cogent, but one could also argue that it is insufficient. It may be so because Jonas does not present many examples of possibly minded purposive non-human organisms; he does not analyze kinds of organisms to see if and how they can be mindedly purposive; he does not engage a critical reflection on how reasonable it is, for instance, to posit that an amoeba is minded and purposeful. One does not read in Jonas’s thought a rich and vibrant presentation of the variety of Life and, in light of such a presentation, then become convinced of the validity of his philosophical and biological claims. Jonas is no field ecologist whose firsthand experience and knowledge of the living world can provide further justification for his ontological assertions. Unlike Aristotle, Jonas does not analyze various organisms in their specific modes of activity and growth. Jonas, in this regard, also presents a less comprehensive philosophy of biology than his contemporaries. Ernest Nagel, for instance, discusses peacock feathers, kidney function, blood circulation, water content in the blood, the motion of rabbits, lacrymal glands in the eyes, robin’s collecting worms, etc.

\textsuperscript{74} The Phenomenon of Life, 1.
showing a much more diverse discussion of organic teleology than can be found in Jonas. Jonas’s contentions concerning mind and purpose in non-human organisms are much less robust than we would expect from such a philosopher of Life.

That being said, we have seen good reasons—albeit from outside of Jonas’s thought—that lend further credence to such contentions. Granted, Jonas likely should have broadened his examinations of living things and incorporated many more examples of non-human organisms exhibiting “minded” purposiveness. Yet such an extension is perfectly compatible with his thought and provides a helpful complement to it. Here, we can recall, as discussed in Chapter Four, how Jonas’s seeming neglect of organic reproduction is not a damning criticism of his philosophical biology. As Lawrence Vogel and Leon Kass make clear, Jonas’s philosophy, in its existential interpretation of biological facts, could, if expanded, readily address the feature of reproduction. Thus, I think that Jonas’s thought can, in a similar way, be modified to include a more robust discussion on the possibility of minded purposiveness in non-human organisms.

We have, of course, not offered the final word on the overall tenability of Jonas’s thought on such purposefulness. What we have presented here is, in the main, an initial attempt to provide further cogency to his arguments. Hopefully, this presentation has indeed succeeded in that task. Nonetheless, even if it has, there will likely be lingering and important criticisms against Jonas’s ideas on the minded purposefulness of non-human organisms. It is beyond the scope of this work to provide a complete answer to such potential criticisms, and so we will have to accept this uncertainty regarding Jonas’s contentions on organic teleology.

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*Collapse of the Distinction between Ends and Purposes*

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A second criticism against Jonas concerns his collapse of the ends-purposes distinction. Here, we need to examine the position of Francis Slade and his succinct articulation of that distinction. Slade sees an end as a “perfection” of the entity in question. The end is also set by the "nature" or fact of the thing in question. In virtue of being an axe, an axe's telos is chopping. Slade also posits that "ends are not executed by agents." The end is ingredient in the thing itself. In which case, there is no "choice" about an end. An axe or the institution of medicine both have determinate, non-chosen ends (e.g., chopping for the axe, healing for medicine). No one chooses those ends to be such; these ends are such in virtue of what axes and medicine are. On the other hand, “purposes characterize agents and actors as they determine themselves to actions.” When something (put better: someone) acts “by deliberation or inquiry,” it acts for the sake of a purpose. However, since “deliberation and inquiry,” are decidedly mental endeavors, then a purpose “possesses an exclusively ‘mental existence.’” “Purposes take their origin from our willing them; purposes would not be if agents did not give them being. The reality of purposes is in consciousness.”

We can gain a better sense of the distinction between ends and purposes by examining a particular example, i.e., the case of medicine. As noted above, the art of medicine, as such, has an

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77 Ibid., 83.
78 Ibid.
79 Ibid.
80 Ibid.
81 Ibid.
82 Ibid.
83 Ibid.
84 Ibid.
85 Ibid.
86 Ibid., 61.
intrinsic end, “the restoration and continuation of . . . health.” On the other hand, someone may pursue medicine for her own sorts of purposes: e.g., “the making of money or the relief of suffering humanity.” Neither of those purposes constitutes the actual, prior, and determinate end of medicine. Rather, they are what someone “favors” or “wants” in her pursuit of practicing medicine. Such purposes may be congruent with the end ingredient to the art of medicine, i.e., health. However, it is also the case that sometimes such purposes may be incongruent with the end of medicine, for example when a physician, out of a desire to make money, practices euthanasia, thereby ending the health and life of the patient and thus acts contrary to the end of medicine. The end is the prior, more basic, and always already given which governs what something is and how—in the case of the arts at least—we can use it, e.g., using medicine for the restoration of health. A purpose, on the other hand, is a goal or desire in the mind of an agent, which she attempts to realize in light of the ontologically prior ends that inform the situation at hand, e.g. the practice of the art of medicine.

Ends thus qualify as a mode of what Norris Clarke would call “real beings:” i.e., something that “is present not just as being thought about, but on its own.” The completion or perfection of something, i.e., its end, really exists whether or not someone thinks about or recognizes it. It obtains in a different “order” than such ideas or concepts. Thus, an end “makes a difference in the real world.” On the other hand, a purpose, qua a mental being, exists only in the mind of someone who is thinking about it. It is only insofar “as being thought about.”

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87 Ibid., 59.
88 Ibid.
89 Ibid., 60.
90 Ibid.
91 Norris Clarke, The One and The Many, 30.
92 Ibid.
93 Ibid., 31. Emphasis original.
94 Ibid., 30.
Mental beings “cannot act on their own . . . [and] cannot be present save by being thought about by a real mind.”⁹⁵ In this regard, “plans for action” and “goals to be realized”—i.e., purposes—do not “have real consequences . . . unless I act on them.”⁹⁶ Clarke, like Slade, also posits that there is a “priority of real being.”⁹⁷ Thus, “real beings (real minds) can generate ideas; ideas of themselves cannot generate real beings. All mental being beings [e.g., purposes] are in some way derived from and refer back to the order of real being.”⁹⁸

In short: an agent generates and is cognizant of a purpose, which purpose is a mental being that serves to guide her action, e.g., toward the acquisition of money. “I am always aware of” the purposes I have in mind that guide what I do and how I do it.⁹⁹ On the other hand, the end of something, its “completion [and] fulfillment,” directs what something is and how it acts, regardless of how or even if that end is cognized at all.¹⁰⁰ “The reality of ends is not constituted by . . . [mental] activity.”¹⁰¹ In fact, even in the case of a conscious agent, he does “not have to be conscious of the end that an action has for the action to have that end.”¹⁰² The causal influence exercised by a purpose hinges on its being thought about and acted on by an agent; the causal influence exercised by an end requires no such mental activity and follows from the way things are in the world, either by nature or art. I, qua a conscious agent, generate, consider, reflect on, discuss, revise, and ultimately act in light of a purpose, which purpose, as a mental being, I intend as such. However, I, qua human, am oriented toward an end that governs all beings of the same nature, regardless of whether or not I think about or even desire such an

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⁹⁵ Ibid., 30-31.
⁹⁶ Ibid., 30-31. Emphasis original.
⁹⁷ Ibid., 30.
⁹⁸ Ibid.
¹⁰⁰ Ibid., 58.
¹⁰¹ Ibid., 61.
¹⁰² Ibid.
end. “Happiness is the end of human life, whatever the purposes of human beings may be.” And in order to achieve that happiness, I must ensure that my purposes are congruent with this prior and more significant end that governs my nature.

Nonetheless, Jonas’s thought does not seem to accord with this distinction. Rather, Jonas often collapses the distinction between ends and purposes. For example, Jonas talks of “final causes,” “finalism,” “purposive inwardness” and “teleology” in much the same vein. Jonas also contends that insofar as all organisms act for the sake of goals, they, in his words, do so ultimately because “life [stands] as their end-purpose.” In addition, when Jonas examines the “the concept of ‘ends’ beyond subjectivity” and its possible “compatibility with natural science,” he begins by discussing the “status of purpose” within “nature as a whole.” Thus, he wants “to expand the ontological locus of purpose . . . from what is apparent in the subjective peak to what is hidden in the breadth of being.” Likewise, Jonas states that “in [man] the principle of purposiveness has reached its highest and self-jeopardizing peak through the freedom to set himself ends and the power to carry them out.” He also talks of how man, on account of this same freedom, is permitted “the setting and choosing of ends.” (Jonas thus clearly contradicts what Slade has articulated: i.e., the fact that ends are not chosen but given because of the nature of the thing in question.) Jonas, in turn, attributes purposefulness to things and activities which seem to be merely end-directed. For instance, Jonas posits that “there is always the purposiveness of the organism as

103 Ibid.
104 Ibid.
105 Ibid.
106 The Phenomenon of Life, 37.
107 The Imperative of Responsibility, 75. (Emphasis added) See also The Phenomenon of Life, 119: In virtue of what “an organism is,” it “lends itself to purposive action.”
108 The Imperative of Responsibility, 71. Emphasis original.
109 Ibid. Emphasis original.
111 The Imperative of Responsibility, 81, n.2
such and its concern in living.”

In fact, organic parts and their activity are termed purposeful by Jonas. Hence, says Jonas, “it is meaningful . . . to speak of the immanent, if entirely unconscious and involuntary, purpose of digestion and its apparatus in the totality of the living body.” Jonas, in other words, asserts that “one can meaningfully speak of nonmental purpose.”

Likewise, Jonas ascribes purposiveness to the development of the universe, the evolution of Life, and the structure of Being. He discusses, for instance, how there is a “natural purposiveness” in Being and how it is an “ontological characteristic.” He also talks about how man is “the supreme outcome of nature’s purposive labor.” He states that the processes of evolution and cosmological development may also have “purposes.” “Goal striving,” especially as done by organic beings, is thus emblematic of the ontologically basic fact of purposiveness. Purpose, for Jonas, seem to obtain in a comprehensive fashion, far beyond the manner in which Slade situates it merely in human consciousness and agency.

For Jonas, then, purpose does not readily equate with the subjective, conscious goal in mind of human persons, such as the goal to acquire money. Rather, purpose seems to pertain to the end-directedness of organisms, in their structure and behavior, toward their own state of being fully alive. It also pertains to the concerned striving that is ingredient to Being as such. Hence, the organism follows the pattern rooted in Being itself, namely purposeivness, which pattern also obtains in the development of the universe and Life. In sum: “just as manifest subjectivity . . . is

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112 The Phenomenon of Life, 90. See also Ibid, 126. There, Jonas discusses how animals, in their needful, goal-directed activity toward survival, nutrition, and other such “goals,” informed as it is by “appetite, fear,” etc., feel and act such as to “make [their] behavior purposive.” Thus basic goal-directedness in animals is purposeful.
113 The Imperative of Responsibility, 75. Emphasis original.
114 Ibid., 72.
115 The Imperative of Responsibility, 80-82.
116 Ibid., 82.
117 Mortality and Morality, 173.
118 Ibid. 81.
119 Ibid., 81.
something of an upstart phenomenon of nature, so too is it rooted in that nature and stays in continuity of essence with it; and that continuity makes both [i.e., nature and manifest subjectivity] participate in ‘purpose.”

Our next question is this: what are we to make of Jonas’s thought on teleology in light of the ends-purposes distinction? Is Jonas’s thought confused and muddled on this point? Could his thought, if properly reworked, actually incorporate the ends-purposes distinction?

A helpful way to begin this discussion is to examine how Slade commences his own essay, “On the Ontological Priority of Ends And Its Relevance to the Narrative Arts.” Slade starts by asserting that Heidegger, in positing the superiority of possibility over actuality, likewise denied the real and normative presence of ends in the world and thus gave supreme significance to “‘projects’” or purposes. According to Slade, this led Heidegger to neglect, in *Being and Time*, any discussion on ethics. In the place of an ethic for human life, Heidegger praised “authenticity . . . and resoluteness.” Interestingly enough, Slade’s criticism of Heidegger is very similar to the one Jonas offers. As we have seen, Jonas sees an ethical vacuum at the center of Heidegger’s thought, a vacuum filled by authenticity and resoluteness. Jonas contends that Heidegger presents reality as entirely lacking in real value; value only arises insofar as something is valuable for someone. Thus, says Jonas, it makes perfect sense why Heidegger, whose thought tended toward nihilism, could join and be active in the Nazi party, insofar as the Hitler exercised resolute leadership for the Fatherland. As we have also seen, Jonas employs Heidegger’s existential analyses of Dasein in order to argue for the real presence of value in the world. Hence, Jonas, in opposition to

120 Ibid., 73.
122 Ibid.
123 See Chapter One, Part II, pages 29-40, of this dissertation.
Heidegger’s nihilism, presents what we have been calling an “ontology of value.” And Jonas’s “ontology of value” hinges on his ideas “concerning ends and their status in reality.” Hence Jonas, like Slade, would affirm “the ontological priority of ends,” especially in opposition to the nihilism ingredient to Heidegger’s existentialism. Jonas affirms the fact that world is structured and governed by ends. Jonas likewise thinks that this end-governance informs what sort of goals humans should pursue. According to Jonas, not even the possibility of immortal youthfulness “can justify the goal of extorting from nature more than its original allowance to our species for the length of our days.” Instead, says Jonas, in order to realize the end of human life—i.e. the proper exercise of our reason and freedom toward the true and the good—it is necessary that our existence be mortal, such that we can “number our days and make them count.” Jonas, like Slade, sees human nature and its end as the ontologically prior framework in which and according to which human reason and freedom (and purposefulness) should be exercised. Therefore, when—as we just noted above—Jonas talks about human freedom and its ability to “set ends,” it seems that, according to his own line of thinking, what he really means is that humans have the capacity to posit and pursue purposes, given his insistence on the fact that human nature is end-governed. After all, Jonas is quite critical of and stands in opposition to the formalism of existentialism, according to which our exercise of choice determines what we pursue and therefore what is valuable. Jonas adopts a robust sense of nature, such that the ends ingredient to nature inform and structure existence, even human existence. “Acting as such . . . is guided by ends even prior to all choice, since . . . having ends at

124 See Chapter One, Parts III and IV, pages 41-82, of this dissertation.
125 The Imperative of Responsibility, 51.
127 Mortality and Morality, 98.
128 See Chapter, Three, pages 218-230, of this dissertation for a further discussion on Jonas’s ideas on how human beings are teleologically oriented toward the true and the good.
129 Mortality and Morality, 98.
all [is] implanted in us by . . .our nature.”130 In the way, the end is prior to volition. Indeed, says Jonas, the “worthy ends” which have their “foundation in Being” are independently “good” and as such “should” govern the exercise of “purpose.”131 I ought to opt for and pursue those goals which, regardless of my volition and preference, are per se worthy of such pursuit, e.g., are good in themselves.

That said, we now can ask short: can Jonas’s ideas on the teleology of humanity accord with the ends-purposes distinction? Granted, as we have seen, Jonas does talks of humans as setting and choosing some of our own ends. In fact, he states that such ends are “creatures of willing.”132 Nonetheless, Jonas also sometimes talks about such chosen goals as being purposes, “e.g., “every purpose I set myself.”133 Thus, Jonas is rather loose with his use of terms here. What is not so, loose, however, is Jonas’s position that ends are ingredient to nature and should govern the exercise of human freedom and reason and the setting and pursuit of goals. In other words, Jonas seems to adopt what we could call his own sort of sort of ontological distinction, i.e., a distinction between a telos that is given in Being and the nature of things and a telos that is chosen and pursued by human being.134 This would also seem to align with the distinction discussed above between real and mental being. Jonas, like Slade, posits a real differentiation between two types of telos: a prior and ontologically basic type and a derivative and human-specific type. Thus, it seems that insofar as Jonas were to clear up his terminology, then he would be readily able to employ the ends-

130 *The Imperative of Responsibility*, 84, n. 4.
131 Ibid., 84. Emphasis original.
132 Ibid., n 4.
133 Ibid., 84. Emphasis original.
134 I understand that telos, according to Slade, is best translated as end. My mention above of telos as possibly chosen would thus seem to be a confusion. However, I am adopting the term here for a specific function: i.e., to articulate Jonas’s differentiation between a final cause that obtains in Being or nature and a final cause that obtains because of human volition. It is a limited and context specific use of the term.
purposes distinction in his discussion on human teleology, given the fact that his ontology already seems to allow for (if not imply) such a distinction.

So Jonas’s thought on human teleology appears able to be modifiable so as to accord with this distinction; what about his thought on the teleology of non-human organisms, evolution, and cosmological development? Is it similarly modifiable?

To begin to answer these questions, we should reflect on the term noted above, “derivative.” For Jonas, the human exercise of purpose is indeed derivative, insofar as it arises from and should accord with nature and Being. Nonetheless, just as paintings can be derivative of prior work insofar as they follow from and bring to perfection what was already done, so, too, is human purpose derivative in that it follows from and brings to perfection what was already done, in this case, the minded exercise of goal-directedness in nature. As we noted above, Jonas contends that “just as manifest subjectivity . . . is something of an upstart phenomenon of nature, so too is it rooted in that nature and stays in continuity of essence with it; and that continuity makes both [i.e., nature and manifest subjectivity] participate in ‘purpose.’”135 In that this sentence encapsulates and articulates a core of Jonas’s ontology—i.e., his idea that “nature is one”136 and that “the organic . . . prefigures mind and . . . mind . . . remains part of the organic”137—then we should pay close attention to it. In essence, we need to ascertain what exactly Jonas could mean here by “‘purpose.’”

On the one hand, Jonas does not assert that non-human organisms—or nature or Being for that matter—are able to set articulate goals in mind for themselves.138 As we have discussed at

135 Ibid., 73.
136 Ibid., 69.
137 *The Phenomenon of Life*, 1.
other points in this dissertation, the minded teleology of non-human organisms, evolution, and cosmological development does not involve “conscious intention complete with an idea of the goal.” Their minded teleology is not in the same order as is the volitional and self-aware purposefulness of human agents. On the other hand, however, Jonas does ascribe some type of freedom and agency to non-human organisms, and even to the processes of evolution and cosmological development. For example, Jonas contends that “the concept of freedom can guide us . . . through the interpretation of Life,” that “the challenge of selfhood qualifies everything” the organism does and encounters, and that the organism is an “affecting agent” in the world. In addition, Jonas posits that nature, in the process of evolution, exercises a “selective preference” for certain life forms and that “in organic life, nature has made its interest manifest and progressively satisfies it . . . in the staggering variety of life’s forms, each of which is a mode of being and striving.” And finally, Jonas thinks that “the fact of subjectivity contributes to” our understanding “of cosmology” and cosmological development. In short, then, the aforementioned “purpose” is neither a willed, set, and purely mental idea, yet nor is it the sort of end, the execution of which involves no agency, freedom, or mindedness.

To bring greater clarity to this issue, we should turn here to the following statement from Jonas. “Because subjectivity displays efficacious purpose [i.e., the ability, rooted in mindedness

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139 See Chapter Three, pages 156-165, and Chapter 6, pages 324-338, for further discussion on how the teleology of non-human organisms does not involve the deliberate setting of, reflecting on, and conscious pursuit of chosen goals which the agent is aware of as such. Also, see Chapter 5, pages, 284-288 and 307-314 for further discussion on why evolution likewise does not involve such setting and choosing of goals. Finally, see Chapter 5, pages 271-280, for a further discussion on Jonas’s ideas about the non-conscious teleology of cosmological development.
140 The Imperative of Responsibility, 72.
141 The Phenomenon of Life, 3.
142 Mortality and Morality, 68.
143 Ibid., 69.
144 The Imperative of Responsibility, 74.
146 Mortality and Morality, 172.
and freedom to set, consider, and determine one’s actions in accord with various goals], indeed wholly lives in it,” then Nature (non-human organisms and indeed the very development of the universe and life) “harbors purpose or its analogue within it.” But what does Jonas mean here by an analogue of purpose? How is it that something like purpose obtains and functions in non-human organisms? Does something like purpose also function in evolution and cosmological development?

Our first task will be to address if and how an “analogue” of purpose obtains and functions in the being and doing of non-human organisms. We start by turning again to Norris Clarke. Clarke talks about final causality as “an intrinsic dynamic orientation of the cause toward its end.”

Thus every dynamic natural property of a non-conscious [i.e., non-human] agent is an innate ontological ‘intentionality’ toward a determinate type of effect, which will carry out whenever the conditions of the surrounding environment permit.” These statements articulate Jonas’s own thoughts on the final causality of non-human organisms. These statements present clearly Jonas’s concepts that the mindedness exercised in the teleology of non-human organisms is always enacted in dialogue with and response to the environment of such organisms. They also make clear Jonas’s concepts that such mindedness has to be understood as analogous to full human consciousness. (Recall our extended discussion on these topics in the preceding sections of this chapter). It is not the sort of mindedness that can, regardless of the immediate environment, present to itself goals to be followed and determine its actions to such goals. In other words, the mindedness enacted by non-human organisms in their goal-directed activity does not involve the positing and pursuit of purposes (as understood according to the ends-purposes distinction).

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147 The Imperative of Responsibility, 71.
148 Norris Clarke, The One and The Many, 201.
149 Ibid., 205.
Rather, it is a dynamic goal-seeking rooted in some form of environmentally determined awareness and carried out by the organism itself for the sake of its own survival and flourishing. The non-human organism, according to Jonas, is a “minded” agent that pursues the ends set for it by nature. The organism, says Jonas, can and indeed must exercise end-directed agency, e.g., toward particular goals which arise for it here and now. The organism is therefore a dynamic entity, whose being is its own doing, and which, in this ontological dynamism, necessarily and continuously acts teleologically.

Thus, when Jonas talks about an “analogue” of purpose being found in non-human organisms, he is referring to the “minded” agency of subject-like beings in their teleological activity and existence. After all, the end-directedness of non-human organisms—especially in regards to their behavior and overall dynamic mode of existence—bears some similarity to human purposefulness, in a manner that end-directed artifacts certainly do not. A lion obviously has the end of nutrition set by its nature, but just as obvious is the fact that it does not pursue that end similar to how an axe is wielded for the sake of achieving the end set by its being the sort of thing it is. The former exercises agency, whereas the latter is merely the instrument of some agent. Jonas contends that the individual organism, as such, qua “minded” and free, does not merely follow a patterned response toward such pre-set ends. Rather, this being, in its “intensity of goal-striving,” in its particular “aim and urge” toward its naturally given ends, exercises a conscious form of teleology. Thus, for Jonas, the non-human organism may not posit and pursue purposes (as understood according to the ends-purposes distinction), but it still exercises real

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150 Axes don’t have natures, i.e., inner principles of changes and rest, though they do have a formal structure. Hence, it is that structure, especially as directed to the end of cutting, which I reference in talking about the “nature” of axes.
151 Ibid.
152 Ibid., 73.
agency and mindedness in pursuit of the end ingredient to its nature. And it is that minded agency that renders the end-directed dynamism of the non-human organism as analogous to the purposefulness which is unique to human beings.

That said, we now turn to Jonas’s ideas on cosmological development and evolution. How, according to Jonas, does some “analogue” of purpose obtain and function in these sorts of processes and in Being itself?

To start this discussion, we should re-consider Jonas’s notion that human characteristics, such as purposefulness, arise from and are not in contradistinction to the process of evolution by which humans came to be. What is most fully articulated in human beings—i.e., free, self-aware, and subjective purposeful motivation—is “presaged” in the very development of life that led to humanity. 

Nevertheless, says Jonas, this development of Life is itself an expression of a prior “cosmogenic eros,” implanted by god in the universe at its creation, which moves it to develop and expand. 

Used in a quite loose sense, could we say that there is some “motivation” at work in the very structure and dynamism of the universe itself? Jonas, at least, speculates that this is the case. Hence, insofar as something like “motivation” obtains in the foundational processes of the cosmos, then something like “purpose” (used in a lose sense, obviously) also obtains in the foundational processes of the cosmos. Thus, for Jonas, especially given his monistic ontology,

153 The Imperative of Responsibility, 69. See also ibid: “The ‘purpose’ which becomes visible in feeling, willing, and thinking was already present, invisibly, in the growth [i.e., evolution] leading up to it.” Emphasis original.

154 Mortality and Morality, 173. See also Chapter 5, Part I of this dissertation.

155 Memoirs, 189. Jonas, as we seen, argues for continuity among all forms of being, insofar as they result from the aforementioned “cosmogenic eros,”and insofar as they tend toward the development of man (see Chapter 5, Part II of this dissertation). He thus talks about a properly understood form of “monistic emergence.”(The Imperative of Responsibility, 67-69.) See also ibid., 69, where he talks about Being, even human being, as involving metaphysical “continuity.”
it makes sense to contend that ‘purpose’ (again, understood in the broadest sense possible) is “an ontological characteristic.”¹⁵⁶

Of course, one could argue that insofar as purpose, properly understood, obtains only in the minded and free agency of self-conscious human beings, then it is not possible to stretch the term in this manner. In response, we can return to what we have just noted, namely that Jonas understands the analogue of purpose to be, in effect, the exercise of minded agency by subject-like beings in their goal-directed activity. According to that understanding, it makes sense to discuss an analogue of purpose as obtaining and functioning in cosmological development and evolution. After all, “mind,” for Jonas, is present, albeit “asleep,”¹⁵⁷ in the furthest reaches of Being; it is likewise present and operative, albeit “unconsciously,” in the genesis and evolution of life, in which “Nature” enacts the role of “subject.”¹⁵⁸ Hence, would not some analogue of purpose—i.e., something akin to the minded, subject-like agency enacted in the teleology of non-human organisms—be likewise present? Could not the characteristics that make possible the exercise of purpose—i.e., minded, subject-like agency—be present in Being, since the purposeful human belongs to Being? Jonas, at least, thinks that these are legitimate considerations and speculations.

Nevertheless, before this discussion gets too complex, we should return to the central issue of this section, namely the ends-purposes distinction. After all, our main concern, in analyzing Jonas’s ideas on the analogue of purpose, has been to see if and how such ideas might allow for modifications to Jonas’s overall philosophy of teleology such that it could accord with the ends-purposes distinction. Having discussed Jonas’s thought on the minded, subject-like teleology of

¹⁵⁶ The Imperative of Responsibility, 80. Emphasis original.
¹⁵⁷ Mortality and Morality, 181.
¹⁵⁸ The Imperative of Responsibility, 73.
non-human agents, we can now ask: is Jonas’s thought compatible with the ends-purposes distinction? If Jonas were aware of this distinction, especially as presented by Slade, could he readily fit it into his ideas on the teleology of non-human organisms, evolution, and cosmo logical development?

The answer, I think, is yes. As we have seen, Jonas already has in place a differentiation between the teleology of setting, choosing, and seeking goals in mind, on the one hand, and the teleology of pursuing immediate, non-chosen, and contextually determined goals, on the other hand (e.g., the sort of goals ingredient to the nature of the thing in question.) Even “animal behavior included is guided by ends even prior to all choice, since [such] ends [are] . . . implanted in [animals] . . . by nature.”159 As we have also seen, he likewise contends that the teleology of non-human organisms, evolution, and cosmological development, insofar as it is akin or analogous to the goal-directedness of self-aware humans, is akin or analogous in virtue of the fact that it is rooted in subject-like and “minded” agency. Hence, Jonas is not asserting that the sort of teleology “we know” in our own experience, i.e., “conscious goals,” obtains and is operative throughout Nature.160 In other words, he is not asserting that purpose, as understood according to the ends-purposes distinction, obtains and is operative throughout Nature. Rather, he asserts that “subjective striving in its particularization” obtains and is operative throughout Nature.161 Could not such striving qualify as end-directedness, as understood according to the ends-purposes distinction?

Granted, Slade, in his articulation of the ends-purposes distinction, does not see mind or agency as operative in the execution of ends.162 Instead, he seems to imply that the nature of the thing in question moves it toward the ends already given to it in virtue of the sort of thing it is.

159 Ibid., 84, n.4.
160 The Imperative of Responsibility, 72.
161 Ibid., 73.
Nonetheless, Slade offers no further thought on how exactly a non-human, natural entity, e.g., a bee constructing a honeycomb (the only non-human, natural example Slade discusses), actually itself seeks out and realizes the ends set by its nature.\footnote{Slade, “The Ontological Priority of Ends,” 59.} Does the bee have some rudimentary desire for and awareness of the honeycomb it will produce? Does the bee exercise some type of “mindedness” in this behavior? Does it adapt itself and its behavior to the environment so as to achieve this sort of goal? If instinct drives the bee to act in this manner, then what exactly is instinct and how does it operate? Slade leaves these and other related questions unaddressed, whereas Jonas, as we have discussed throughout this dissertation, devotes considerable thought to such issues. And based on this analysis of the teleology of non-human organisms, Jonas posits the aforementioned idea of minded, subject-like agency as operative in the teleology of non-human organisms (and in evolution and cosmological development). Thus, Jonas approaches such natural teleology from a much different perspective that Slade. And it is a perspective that has considerable merit, as we examined in the preceding section. Therefore, Jonas may well be on the right track and Slade’s thought may be underdeveloped, in regards to the issue of the actual pursuit and attainment of ends by non-human organisms and processes.

Nonetheless, even if that is the case, it does not imply that Jonas’s thought is incompatible with the ends-purposes distinction. After all, Jonas sees “conscious intention complete with the idea of a goal” as obtaining only in human “mentality.”\footnote{The Imperative of Responsibility, 72. Emphasis original.}\footnote{Ibid., 72-75.} Hence, although he does ascribe some form of “mindedness” to non-human teleology, he does not ascribe to it the self-aware and volitional positing and pursuit of goals in mind as enacted by human beings. Rather, he uses terms such as “aim,” “urge,” and “striving” to describe such teleology.\footnote{Ibid., 72-75.} In short: Jonas’s analysis of the
teleology of non-human organisms, evolution, and cosmological development, although it goes much further than Slade’s analysis in terms of examining such teleology and the “mindedness” and agency which operates within it, can still square with there being a real distinction between ends and purposes.

Of course, in order for this squaring to occur, Jonas would have to clarify and refine his terminology. As we discussed above, Jonas is quite lose with his application of the terms “ends” and “purposes,” more often than not using them interchangeably. A serious terminological revision would be in order so that Jonas’s philosophy of teleology could properly articulate the ends-purposes distinction. For instance, instead of discussing ends, he would have to discuss how humans can choose purposes beyond nature. In this way, Jonas would consistently use the term “ends” when talking about the nature-governed telos of a specific kind of organism. He would have to say that he is analyzing the “ontological locus” of “minded” teleology throughout Nature, rather than the “ontological locus of purpose.” He would have to say that the digestive organs are end-directed, not purposeful. He would also avoid talking about ends in such a way as to sound similar to the formalism he critiques in existentialism (i.e., willing as such is the good, because there are no pre-set ends which govern and inform how that willing ought to occur).166 Nonetheless, despite the need for such a serious terminological revision, Jonas’s thought, in the end, seems to be compatible with the ends-purposes distinction.

The Issue of the Teleology of Plants

Here, we need to recall Jonas’s ideas, discussed in Chapter Three, that organic teleology is differentiated from cybernetic teleology because the former but not the latter is based on

166 See The Phenomenon of Life, 215.
affectivity. The organism exists and acts emotionally, whereas the insentient\textsuperscript{167} computer exercises a different sort of teleology. However, as we also discussed, this sort of affectivity-rooted teleological activity does not seem to obtain in the case of plants.\textsuperscript{168} Thus, how can Jonas account for plant teleology, especially as opposed to cybernetic teleology?

Given his extension of mind with Life, Jonas could contend that emotion is likewise co-extensive. That is, the needful, holistic, world-forming, world-inhabiting plant organism, which exercises a contextually determined mode of conscious response in the continuous enactment of its existence, could be considered “emotional,” in some very stretched use of the term. This mode of organic existence seems, at least on the surface, to be structurally akin to the manner in which we humans (as well as animals) inhabit and act from affective states.

Nevertheless, this line of reasoning may stall rather quickly. First, unlike even lower animals, plants evince no readily apparent, self-generated motion, especially of the sort that seems potentially rooted in affectivity. A tree’s branches sway because of the force of the wind, but a cockroach seems to move itself away from a descending foot, perhaps doing so because of some basic “fear.”\textsuperscript{169} Even the seemingly more self-generated phototropic motion of a plant does not indicate the apparently affective behavior of the cockroach. That is, it is difficult to see how a tree growing over some period of time in response to sunlight is doing so emotionally or based on affectivity. Yes, in terms of non-apparent motion, plants grow similar to lower animals (e.g., in stages, they develop features that allow them to obtain nutrition), but just as this growth in animals (and even humans) is not emotional, so, too, would it be non-affective for plants. The actual

\textsuperscript{167}This term refers to the fact something’s mode of being is not enacted with any emotionality (or anything like emotionality). An insentient entity, as we are presenting it here, has no capacity at all for feelings, even basic ones. With such entities, affectivity has no relevance for what it is or what it does.
\textsuperscript{168} See Chapter 3, pages 165-174.
\textsuperscript{169} See Chapter Three, pages 171-173.
growth, as such, of my belly is not an emotional experience, although the result of such growth may be a source of consternation. Plants do not seem to move, then, in a manner similar to the motions of lower animals that may indicate the presence and operation of emotion in such animals.

Secondly, the attempt to ascribe emotions to non-locomotive plants opposes Jonas’s own thought. Jonas contends that the “mediacy of vital action by external motion is the distinguishing mark of animality.”\(^{170}\) The animal must engage with spatially non-proximate entities it has perceived;\(^ {171}\) hence “it is the main characteristic of animal evolution as distinct from plant life” that “space” be central to its existence.\(^ {172}\) Locomotive activity through space toward a sensed, distant goal is, in turn, made possible by “continuous emotional intent.”\(^ {173}\) “The pang of hunger, the agony of fear,” etc. help impel the animal toward this spatially distant goal. Animal existence is therefore set apart from plant existence because of its “mobility, perception, [and] emotion.”\(^ {174}\) “Animal being, [functioning in this spatially-indexed sensing and motile form of existence,] is thus essentially passionate being.”\(^ {175}\) “The appearance of directed long-range motility . . . signifies the emergence of emotional life.”\(^ {176}\)

Hence, Jonas cannot—for reasons both external and internal to his system of thought—ascribe emotion to plants. We are thus left with the aforesaid conundrum: how can he differentiate between cybernetic teleology and the teleology exercised by plants? More broadly (and perhaps more significantly), does this spell serious problems for Jonas’s organic teleology?

This issue becomes even more pronounced in light of Jonas’s ideas from his *Philosophical Essays*. There, Jonas contends that plants lack proper centralization of activity; in this regard, they

\(^{170}\) The Phenomenon of Life, 104.  
\(^{171}\) Ibid., 105.  
\(^{172}\) Ibid., 100.Emphasis original.  
\(^{173}\) Ibid., 101.  
\(^{174}\) Ibid., 99.  
\(^{175}\) Ibid., 106.  
\(^{176}\) Ibid., 101.
possess less ontological identity than amoebas. Jonas also states that the plant does not exercise the sort of self-generated and reversible motion exercised by animals. Rather, even phototropic motion, “as to occurrence, rate, rhythm, is entirely governed from without.” Plant motion is likewise decentralized and hence different from animal motion. This non-centralized, non-self-moving plant also lacks the continuity of identity of the animal. “The blossoming tree is not so unqualifiedly ‘the same’ as that which was bare in winter; . . . it really has changed in its being.”

For Jonas, it seems that not only is the plant insentient but perhaps even a non-self, devoid of the sort of ontological identity and mode of activity capable of enacting genuinely inherent purposefulness. Is the plant enough of an “it” to have some form of organic teleology, albeit despite its lack of affectivity?

In order to explain the insentient but still organic teleology of plants, Jonas could have expanded on the notion of “irritability.” “Irritability is the germ . . . of having a world, just as the cell itself is the germ and atom of having a larger world.”

177 Philosophical Essays, 200.
178 Ibid., 204-205.
179 Ibid., 205, n. 9. To be clear: I think that this assertion by Jonas is incorrect. After all, the mere fact of sunlight being proximate to a tree does not force the motion of the tree toward it. A forced motion would be, for instance, the motion of a stone were I to drop it from a second story window. The stone contributes nothing to this event. However, the tree does contribute something to this event of phototropic motion: i.e., it grows toward the sun. Obviously, it does so only in concert with the presence and location of the sunlight. In this manner, phototropic motion is obviously contextually determined, but it is not “entirely governed from without” as Jonas asserts.
180 Ibid.
181 Ibid., 204. Jonas’s analysis on this issue, however, may be incomplete. Certain animals, such as Tardigrades, are known to enter a state of cryptobiosis, during which they seem to suspend metabolic activity, and then later resume full metabolic activity. In fact, this process “has been compared to death and resurrection.” (William Randolph Miner, “Tardigrades,” American Scientist, americanscientist.org/article/tardigrades, Accessed 09/05/2019.) This organism, which is an animal, thus appears to have “changed its being” in the same way that the tree did according to Jonas. Hence, perhaps it would have been better for Jonas to state the following: animals usually exhibit a continuous and recognizable identity over time, whereas plants do not. However, this is not always the case for animals, such as the Tardigrade. Nonetheless, as discussed in the previous pages, animals, in virtue of their spatial mobility, are ontologically distinct from plants. This would include the Tardigrade, which is nonetheless similar to plants in terms of how it “changes its being” over the course of its life.
182 The Phenomenon of Life, 99.
183 Ibid.
other words, is marked by its “sensitiveness to stimuli” as an “integral aspect of its aliveness.”\textsuperscript{184} The cell also “acts as an atomic constituent in the synthesis of a higher order.”\textsuperscript{185} This “irritable” mode of existence would obtain for all organisms, including plants, since they are composed of such “irritable” cells. Constituted thusly, the plant manifests an inherent “dynamism” toward its immediate environment and “the availability of matter needed for the renewal of form.”\textsuperscript{186}

This term “form” invites further reflection. Existing in a formal manner—i.e., in a unified, active, and systematically structured fashion\textsuperscript{187}—the plant is not merely a placeholder for its component cells, which would exist, function, and inter-relate in precisely the same manner no matter the particular organism in which they obtain.\textsuperscript{188} Rather, the systematic inter-relation among the cells indicates the sort of “higher order” was mentioned in the prior paragraph. Nevertheless, despite its participation in and influence by this formal structure, the cell, as we saw above, still exercises an “irritability,” which now informs the modality of the larger organism, i.e., “the higher order,” in which the cell inheres. This sort of “Aristotelian reminder” about the “identity of form in relation to matter”\textsuperscript{189} also needs to be understood in light of the fact that the plant experiences “permanent organic needs.”\textsuperscript{190} Qua needy, the plant is metabolic.\textsuperscript{191} The plant is a structured,

\textsuperscript{184} Ibid.
\textsuperscript{185} Ibid.
\textsuperscript{186} Ibid., 102.
\textsuperscript{187} Jonas refers to form as “the whole structural and dynamical order of the manifold.” (\textit{Philosophical Essays}, 194) He also states that in the case of organism, form is “the very structure dynamically securing its own preservation.” (Ibid., 196)
\textsuperscript{188} See, \textit{Evan Thompson, Mind in Life}, 64-65: “An autonomous system, such as a cell or multicellular organism, is not merely self-maintaining . . . it is also self-producing and thus produces its own self-maintaining processes, including an active topological boundary that demarcates itself . . . Dynamic co-emergence best describes the sort of emergence we see in autonomy. In autonomous systems, the whole not only arises from the (organizational closure of) the parts, but the parts also arise from the whole. The whole is constituted by the relations of the parts, and the parts are constituted by the relations they bear to one another in the whole. Hence, the parts do not exist in advance, prior to the whole, as independent entities that retain their identity in the whole. Rather, part and whole co-emerge and mutually specify each other.”
\textsuperscript{189} \textit{The Phenomenon of Life}, 86.
\textsuperscript{190} Ibid., 102.
\textsuperscript{191} Ibid.
dynamic entity, interactive with its environment and seemingly manifesting the “irritability” of its component cells.

Granted, plants do not, according to Jonas, possess the same degree of ontological identity as animals (or even amoebas). Granted, too, it may make sense to discuss plant-identity in more communal terms: i.e., perhaps the plant should be seen as a community of cells organized in a particular fashion. But even in that communal form of cellular existence, the cells are subsumed into different ordering, just as is a person in a tight-knit and well-functioning community. The plant seems to possess a sufficient sort of ontological integrity to be and act, as such, in the world. The plant could be a naturally structured and en-formed being as such.

Understood in this way, the plant could exercise an insentient irritability for its own sake. Within the community of inter-related cells, some may agitate in local regions (e.g., in the roots or in the bark). However, this agitation (motion, attempt to secure nutrition/energy, etc.) is affected by and duly affects the whole tree. We see this clearly when we consider the larger-scale effects of such cellular irritability. For example, the dispersal to the whole tree of water sucked up by the roots may hinge on the intake and excretion of “mineral ions” in the “endodermal cells,” which

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192 Consider Norris Clarke’s ideas on “System as a New Category of Being,” The One and the Many, 135-136. Clarke says that a system, although not a full substance (understood classically) is still “not merely a sum of many accidental relations but forms a new unity with its own properties that is not reducible merely to the sum of all individual relations.” It is “a new mode of unity that resides in all its members at once.” Clarke lists ecosystems and “insect colonies” as two organic examples of this mode of being. Granted, I think we would want to say that a tree is more unified than an insect colony, even if, as Jonas says, it is less unified than a cell (or an animal with a central nervous system). Determining more precisely the manner of ontological unity of a tree lies beyond the scope of this dissertation. What we can say, in short, is that the tree, like the systems described by Clarke, would manifest some type of formal, non-reductive existence sufficient to enact what Clarke calls a “distinctive mode of real being.”

193 Even Jonas’s notion of plants lacking self-generated motion may not be too problematic. After all, certain interpretations of Aristotle argue that physis, properly understood, refers, in the main, to how something is such so that it is moved in a certain way; nature is an internal principle explaining why X is moved as it is (instead of explaining why X, on its own, moves as it does) See Thomas Larson, “Natural Motion in Inanimate Bodies,” The Thomist, 71:4 (2007): 555-576. Thus, Jonas’s point about the phototropism of a plant occurring due to external factors could square with the phototropic plant possessing some nature that governs its motion (the way it is moved rather than the way it moves itself.)
cells themselves exist and function within the vascular tissue of the plant. To borrow from a previously cited phrase of Jonas’s: a “higher order” is at play here, one which (to borrow from Kant this time) is both cause and effect of the cellular order.

Hence, we could talk of non-affective plants, qua irritable, as still organically teleological. Composed of and making use of living cells, as well as exercising a similar type of irritability as such cells, plants are not on par with cybernetic machines. Put in more classical terms: the form and matter of the plant (its dynamic structure and cellular composition) are vastly different from the form and matter of a computer. The needful and metabolic organism, even if insentient, is still, in virtue of its dynamically structured existence, interactive with the world and oriented toward the food-sources available in that world. This basic en-forming of the plant organism indicates a much more inherent teleology than the cybernetic machine which merely carried our external purposes. Granted, this teleology cannot be exercised across space. Granted, it is not based in the more obviously centralized being of animals and their organic agency. But having this sort of teleology does not disqualify the plant from being a purposeful organic entity. After all, “there is always the purposiveness of [the] organism as such and its concern in living: effective already in all vegetative tendency [and] awakening to primordial awareness in the dim reflexes, the responding irritability of lowly organisms.”

To close this section, we can state that Jonas should have been more clear and consistent with his discussions on plants and their teleology. We have had to mine his philosophy (and bring in other thinkers) just to present some basic articulation to his thoughts on these issues. We can

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194 See Biosphere, 412.
195 Ibid., 392: “Plants, maintaining their passive vigils, may seem to be simple and inactive, but this appearance is deceptive. In fact, they are highly organized dynamic organisms.”
197 Ibid., 90. Emphasis added.
here think back to the contention made earlier of how Jonas fails to address specific examples of mindedness in non-human organisms. In a similar way, as we see here, Jonas fails to offer a rich examination of the world of plants. His philosophical biology is, unfortunately, undermined a bit by his disregard for a more “hands-on” approach to organisms.

PART II: Teleology and Jonas’s “Ontology of Value”

*Is Jonas’s Teleology Adequately Robust to Support his “Ontology of Value?”*

This question relates back to our discussion in Chapter One about Jonas’s argument for an “ontology of value.” Jonas works to articulate a sense of the world such that it is objectively valuable and such that this value can help ground our morality. In this manner, he hopes to overcome what he sees as the nihilism at the core of Heidegger’s ontology.

To this end, Jonas attempts to show how purposefulness can help to ground an “ontology of value.” For Jonas, “nature harbors values because it harbors ends,” precisely because “values [are] . . . present in nature as objects of purpose.” Yet it is not merely because values exist as objects of purpose that leads Jonas to argue for objective value in the world. Jonas states that this ontological fact of value-seeking purposiveness, which is ingredient to nature, is itself an “objective value.” Thus, for Jonas, the most fundamental good of being, that which grounds all values and is basic to all ethics is “the ontological characteristic of . . . Purposiveness.” Insofar

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198 *The Imperative of Responsibility*, 78.
199 Ibid., 77.
200 Ibid., 80. Emphasis original. See also ibid., 77. “Purpose as such is its own accreditation within being and we must postulate it as an ontological axiom.”
as being is purposeful, then there is a “basic value of being as such.”\textsuperscript{201} Since this value in itself is commensurate with “the good,” then we see here a foundational good whose ethical demands must be honored.\textsuperscript{202} Thus, Jonas believes he has presented an “ontology of value” capable of grounding ethics and overcoming the nihilistic trends of existentialism.

But we should ask: does Jonas’s philosophy of teleology serve to support this “ontology of value?” Does his wide-reaching analysis of goal directedness, especially the goal directedness found in Life, buttress his contention for the ontological reality of a foundational purposiveness that can serve as a basic good for contemporary ethics?

To begin to answer this question, consider Jonas’s philosophical biology, according to which the central polarities of human existence, such as self and world, obtain in and structure all organic existence. All living things are subject-like beings that exist in corresponding environments in which and by which that existence is enacted. Hence, “the being of organisms is their own doing.”\textsuperscript{203} Nevertheless, this basic mode of organic existence is anything but purposeless. According to Jonas, the organism, in virtue of this continuously enacted and dynamically existing selfhood, constantly seeks out and obtains objects (e.g., food), the proper incorporation of which constitutes the organism’s basic metabolic way of being. This seeking out, obtaining, and incorporating is never random but is performed according to “the absolute interest of the organism in its own being and continuation.”\textsuperscript{204} The organism acts as it does in its world for the sake of its own existence.

\textsuperscript{201} Ibid., 81.
\textsuperscript{202} Ibid.
\textsuperscript{203} Mortality and Morality, 88.
\textsuperscript{204} Ibid., 69.
We see here “the purposiveness of the organism as such and its concern in living.”

Because of its subject-like status and self-referential manner of existence, the organism is purposeful. In fact, the physical constitution of the organism is also end-directed. “It is [the] . . . teleological nature” of “eyes [to] . . . have in their physical make-up a reference to seeing and ears to hearing.”

But as Jonas makes clear, it is not merely survival that the organism aims for but surviving as a full member of its kind. “Such ‘means’ of survival as perception and emotion . . . are never to be judged as means merely, but as qualities of life to be preserved and therefore as aspects of the end.” The organism thus purposefully pursues a species-particular entelecheia.

The organism also assumes ontological significance. Jonas speculates “that in the cosmically rare opportunity of organismic existence . . . the secret essence of Being . . . seized the long awaited opportunity to make itself more and more worth affirming.” “Only in confrontation with non-being [i.e., organic death] could Being come to feel itself, affirm itself, make itself its own purpose.” The purposiveness of Being becomes fully realized and instantiated in organic existence. Because organic being is necessarily mortal and therefore tenuous, it must always be its own end, an end it constantly “realize[s] anew in opposition to its ever-present contrary, not-being.”

For Jonas, “the essence of reality reveals itself most completely in the organic components of the organism.” And the organism, says Jonas, is a necessarily purposive being. In fact, says Jonas, “there is no organism without teleology.” Therefore, Being, most notably in

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205 Phenomenon of Life, 90.
206 Ibid., 91. “the teleological structure and behavior of the organism is not just an alternative choice of description; it is . . . the external manifestation of the inwardness of substance.”
207 Ibid., 90.
208 Mortality and Morality, 93.
209 Ibid., 91.
210 Ibid.
211 Ibid., 90.
212 Memoirs, 198.
213 The Phenomenon of Life, 91.
the paradigm of the organism is also integrally purposive. And to be clear about a possible point of confusion: Jonas is not contending that Being, as revealed in the organism, is good because it is its own end. Rather, Jonas is stating that the inherent and robust purposiveness of organisms makes clear and brings to fullness the purposiveness which is foundational to Being and which, as such, is an objective value or basic good (as discussed above).

Our discussion on teleology thus reveals that Jonas’s philosophy of teleology readily supports his “ontology of value.” Jonas’s insightful analysis of organic teleology demonstrates that Being, especially as “revealed in the organism,” is purposive in a robust and multifaceted fashion. Jonas has discussed teleology in such a way as to demonstrate that “purpose is indigenous” to Being and that it can properly qualify as an “ontological characteristic.” Jonas’s philosophy of teleology, which accepts, analyzes, and builds upon “the proven occurrence of purpose in” Being, can thus provide solid support for his “ontology of value.”

*Is Purposefulness Really an Ontologically Basic Good?*

That said, how sound is Jonas’s claim that purposeful being is a good in itself capable of grounding contemporary ethics? To start, we should consider that, according to Jonas, this basic goodness of purposive Being issues ethical demands to us as moral agents. Thus, purposive Being expresses an *imperative* that obliges us. Jonas states that purposefulness is “the deepest-rooted, oldest, and most constant vote of” Being. He also asserts that “we say that a ‘command’ can issue not only from a commanding will . . . but also from the immanent claim of a good-in-itself to its realization,” i.e., from purposeful Being. Finally, there is his contention that “in every

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214 *The Imperative of Responsibility*, 74
215 Ibid., 72.
216 Ibid., 77.
217 Ibid., 79.
purpose, being declares itself for itself.”\textsuperscript{218} In short, then, Jonas argues that Being, in its foundationally good purposefulness, issues a fundamental, absolute, and universal demand on us and our activity, a demand to honor and foster such purposefulness.

Nonetheless, we can, following Lawrence Vogel, “wonder whether we need to turn the purposiveness embedded in nature into an imperative.”\textsuperscript{219} After all, Jonas earlier posits that it is often only religion that can articulate such demands, i.e., universal commands requiring obedience, and that, outside such religiously derived principles, it may be “impossible.”\textsuperscript{220} He also posits that a “violation” of the basic principle of good (i.e., purposive Being) that undergirds his ethics involves “no rational contradiction,” which means his understanding of imperatives is not the same as Kant’s.\textsuperscript{221} Finally, as we saw last chapter, he posits that the “minded” purposefulness of Being is not genuinely subject-like.\textsuperscript{222} Thus, as Vogel asserts, “it remains unclear” how Jonas can make these claims about Being “\textit{without} there being a conscious perspective outside our own \textit{for} whom our destiny matters.”\textsuperscript{223} That is, commands, votes, and declarations most often, if not always, come from fully minded (i.e., personal) beings who can exercise authority over those commanded and issue to them clear and comprehensive obligations. Since Jonas does not make direct recourse to God as such a being, and since, as we saw last chapter, he does not present Being as personal in any meaningful way, then it remains unclear—to reiterate Vogel—who or what in Jonas’s philosophy can issues such authoritative demands. Granted, it seems reasonable to argue that we should \textit{respect} Life and its amazing evolution, which after eons and innumerable species culminates in the genesis of humanity. We may even have a sense of reverence and awe for Being

\begin{footnotes}
\item[218] Ibid., 81.
\item[220] \textit{The Imperative of Responsibility}, 12.
\item[221] Ibid., 11.
\item[222] Chapter 5, page 305-306.
\item[223] “Hans Jonas’s Exodus,” 38. Emphasis original.
\end{footnotes}
and the very mystery of organic existence. But respect and reverence are not tantamount to obedience. We obey people who possess and express legitimate authority over us; do we do the same toward Being?

What sort of response could Jonas offer here? Jonas, as we saw last chapter, posits the existence and operation of a creative, minded God at the start of the universe. He offers speculations that God is necessary to account ultimately for the real presence of mind in the universe. Were Jonas to strengthen his sense of the divine and its causality in the world, i.e., were he to make the divine word more clear and commanding, then it would be more reasonable for him to argue for commands and dictates issuing from Being, insofar as God would be “speaking” such commands and dictates through Being. God could be the authoritative voice whose imperatives we are always called to obey.

Nevertheless, such a response may not ultimately work. Jonas considers theology to be a “luxury of reason” and a speculative effort, not one sufficient to formulate a comprehensive ethic for the contemporary world. Likewise, as we saw last chapter, Jonas thinks that God divested himself of power in his act of creation. Such a power-divested God seems hardly capable of issuing the sort of ethical demands noted above. In addition, this God, although he implanted in the universe a “cosmogenic eros” toward the development of Life and mind, does not dictate or direct this development. He is not the sort of God who issues commands. Jonas’s God is not the personal and demanding God of Abraham and Moses but is more so a creative divine being almost akin to the God of deism. It is hard to see how Jonas, if he is consistent with his own

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224 Mortality and Morality, Chapter 8: “Matter, Mind, and Creation: Cosmological Evidence and Cosmogenic Speculation.”
225 Ibid., 113.
226 See Chapter 5, Part 1 of this dissertation for a further discussion on why Jonas’s God, who steps back from creation and does not direct or govern it, cannot be the sort of God who issues absolute imperatives through Being.
principles, could expand the role of God in his overall thought. Thus, it is hard to see how, in this same philosophy, God can be the personal issuer of ontological demands.

In sum: addressing Jonas’s teleology indicates that it lends ready support for his “ontology of value.” However, such support cannot erase the fact that this ontology may not ultimately be plausible. Insofar as Jonas talks of demands, votes, etc. issuing from purposeful Being, and insofar as he does not consider God to be the source of such commands, then his thought in is open to serious criticism. At best, by articulating the ontological character of purposefulness, Jonas has explained Being, qua teleological, as worthy of respect but not in such a way that Being could issue absolute imperatives. Such a criticism, although not directly against Jonas’s philosophy of teleology, still obtains against his ethical philosophy.

Part III Concluding Discussion

*Jonas’s Contribution to the Method of Analyzing Biological Teleology*

One way to begin this discussion is to consider how Jonas accounts for the inherent teleology of the organism. In this regard, Jonas gives credence to our normal experience and explanation of livings things. We see organisms acting for the sake of obtaining certain goals, such as nutrition. We likewise see that the structure and constitution of the organism exhibits teleology. The best explanation of what organic parts are and how they function, as well as the best explanation for the living thing itself, is to say along with Jonas that “eyes do have in their physical make-up a reference to seeing, and ears to hearing, and organs generally to their performance—
and, more generally still, organisms to living.”

Jonas does not feel the need to disregard or deny what is evident about the organism.

Jonas is willing to bite the proverbial bullet and accept the full ramifications of his concepts concerning real and robust final causality operative in organisms. Following his example, we do not reduce the organism to the status of being merely an epiphenomenon of its molecular and cellular functions. We do not, says Jonas, act “like the biologist investigating elementary life processes . . . who proceeds as if he didn’t know there was a whole organism in which they [i.e., such processes] were occurring.” Instead, we keep the integrity of the organism and try to account for its growth, activities, environment, etc., in light of this integrity instead of in opposition to it.

Jonas, in this way, does not position his thinking within the set and unquestioned boundaries of commonly accepted scientific theories. Jonas contends that “natural science doesn’t tell us everything about nature.” Granted, Jonas is not trying to undermine the foundations of modern science. Yet his understanding of the necessary limitations of science allows him to assert that “it is simply not true that an ‘Aristotelian’ understanding of [purposive] being contradicts the modern casual explanation of nature or is inconsistent with it.” This “abstinence of natural science” therefore means that a deep and comprehensive investigation into real and robust minded purposiveness in Life is an appropriate pursuit for philosophy and even necessary in light of the “proven occurrence of purpose” in Life. Such an “Aristotelian reminder” allows us to see that “teleological . . . nature of life . . . is in the first place a dynamic character of a certain mode

229 *The Phenomenon of Life*, 90.
230 *The Imperative of Responsibility*, 70.
231 See *Mortality and Morality*, 67.
232 *The Imperative of Responsibility*, 72.
233 Ibid., 71.
234 Ibid., 70.
235 Ibid., 72.
of existence, coincident with the freedom and identity of form in relation to matter, and only in the second place a fact of the structure or physical organization.”

Jonas’s philosophy of teleology is not hindered, as are other contemporary philosophies, by attempting to operate within boundaries not suitable for its very subject matter. Jonas tries to “interpret” the aforesaid “proven occurrence of purpose” on its own terms, that is, according to what “nature testifies to itself in what it allows to come forth from it.” Jonas thus offers an example worth emulating of how to argue for teleology in a philosophical biology that can simultaneously respect but not be unduly limited by contemporary science.

Jonas also articulates a vision of organic teleology that relies on and reiterates both the real purposefulness in Life and the interconnection and commonality of organisms as evolved. This understanding of Life serves several ends. First, Jonas does justice to the full extent of Darwin’s theory, such that humanity’s features evolve from prior species and cannot be considered in isolation from the rest of the organic community. Clearly recognized features of human existence, such as mindedness, freedom, and purpose, those arose from and are found, “in nuce,” within the organic community to which all other organisms belong. Jonas articulates the paradoxical fact that Darwin’s theory, which relies on the non-purposeful mechanism of natural selection as a primary mode of explanation, nevertheless supports the idea of teleology obtaining in all Life insofar as it obtains undeniably in human life. Jonas thus offers a vision of the

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236 *The Phenomenon of Life*, 86.
237 Ibid.
238 Ibid., 69.
239 Granted, natural selection, as the primary mechanism by which such evolution occurs, relies on the random and seemingly non-purposeful mutation of species. Nonetheless, as Jonas makes clear, this aspect of evolution does not erase the fact that the origin of species from common ancestry implies that the descent of man, in all its characteristics, relates back to that same ancestry and common lineage.
240 *Mortality and Morality*, 60.
development of life which does justice to and does not ignore or try to rationalize away the mystery of Life’s progression.

Secondly, Jonas’s analysis of organic teleology leads readily to fascinating, albeit limited, speculations on whether and how the universe and Life came ultimately from a minded creator and developed in a purposeful manner. Jonas does not succumb to the tendency to limit his thinking to the purely scientific (where the scientific is equated with what is measurable, material and, to some extent at least, predictable.\textsuperscript{241}) He is willing to follow through with his reflections and consider possible explanations beyond the currently accepted cannon of biology. Jonas is thus willing to engage a more critical and penetrating consideration on the possibility that the cosmos and Life, in their genesis and development, are purposeful. Jonas overcomes what we could call the dogmatism of contemporary science (or at least the dogmatism of certain people who currently talk about science) to pronounce impermeable boundaries on what can and cannot be said about organic existence and its ultimate origins. Of course, as we saw last chapter, Jonas’s speculations are not provable and may be subject to further criticism.\textsuperscript{242} In this way, they will not be completely convincing. But Jonas does not intend them to be such, and nor should we. Rather, we ought to commend Jonas for opening up and pursuing interesting and important speculations on purposefulness and Life. He provides an example for how one can, in his genuine appreciation for and wonder at the phenomenon of Life, be open to and deeply reflect on what some might wrongly regard as “unscientific” explanations for the genesis and development of organic existence.

\textsuperscript{241} \textit{The Imperative of Responsibility}, 72: “for natural science, it is enough that in measurable regions, the quantitative-deterministic accounting always tallies.” See also \textit{Philosophical Essays}, 67: “Any physical state can be represented as a determinate configuration of masses and forces from which the next state follows necessarily and . . . can be computed rigorously by a calculus of the represented magnitudes.”\textsuperscript{241} Furthermore, says Jonas, this presentation of a set, uniform cosmos, relies upon the “constancy of matter and energy (or matter-plus-energy).”

\textsuperscript{242} Chapter 5, Part 1.
The Possible Relevance of Jonas’s Phenomenology for Contemporary Science

Here, we will return to and flesh out a notion discussed previously, namely that the organism, according to Jonas, is a subject-like being with its own interiority.\(^{243}\) The organism, on account of its self-interest and self-referential mode of being in the world, interacts with and pursues ends in that same world for the sake of itself and its own continued existence and flourishing.\(^{244}\) Jonas, consequently, addresses the organism not as a mere object but as a subject.\(^{245}\) He wishes to address how an organism experiences and responds to the world in much the same way that phenomenology addresses the person’s conscious experience of the world. He wants to know, in other words, what it might be like to be an organism, a minded “self” interactive with its environment—i.e., how the organism has a basic “awareness” of this environment and how the world is given in experience for the organism according to its “self-interest in its own being and continuation.”\(^{246}\) Jonas maintains a structural similitude between humans and non-human organisms in that both are subject-like, minded beings in the world and provides a glimpse into the organism from the inside out based on our own inside-out self-awareness. Jonas, by approaching Life from a phenomenological perspective, opens up a way of understanding the organism as more than just an object of biological analysis but rather as a dynamically existing self. He “uses phenomenological philosophy to argue that certain existential structures of human life are an enriched version of those constitutive of all life.”\(^{247}\)

\(^{243}\) See Chapter One, pages 53-59.
\(^{244}\) See, for instance, Mortality and Morality, 65: Organisms are “systems of matter that are unities of a manifold, not as a result of a synthesizing perception whose object they happen to be . . . but by virtue of themselves, for the sake of themselves, and continually sustained by themselves.”(Emphasis added)
\(^{245}\) Ibid., 69: The “transcendence” of the organism in going beyond itself and forming a “dialectical” relationship with the world “includes a inwardness or subjectivity.”(Emphasis original)
\(^{246}\) Ibid.
\(^{247}\) Mind in Life, 157.
Jonas approaches the organism in an *inter-subjective* fashion. Granted, he is not proposing that we have some type of I-Thou relation with a tree, as we saw with Buber. Nor is he proposing that we have no objective understanding of the organism. Nonetheless, he is asserting that to do justice to the organism, we must approach it in terms of its status as a subject, no matter how limited that status may be. As Jonas points out: human selfhood and subjective agency can also be addressed in terms of mechanistic and completely objective perspectives.\(^{248}\) And just as we should avoid cognizing humans in this fashion, so should we avoid doing the same for non-human organisms.\(^{249}\) Jonas thus contends that we should approach the organisms not as “stripped and alienated to the mode of mute thinghood” but rather as the dynamically existing selves they are, which share with us humans basic existential characteristics.\(^{250}\)

After all, he argues that “life is known by life.”\(^{251}\) He also contends that we do not cognize the natural world from a neutral or removed standpoint, divorced from our own mode of life. The natural world is given to us as we are in our embodied mindedness and subjectivity.\(^{252}\) Hence, the organisms in the natural world, as objects of our intention, mirror our own sense of who we are as holistic, dynamic, feeling, and minded beings.\(^{253}\) These organisms come to cognition in their status as non-reducible ends in themselves. Jonas’s phenomenology of Life leads to an intuition of the complexity and holism of the beings of the natural world.

\(^{248}\) *The Imperative of Responsibility*, 63.
\(^{249}\) *The Phenomenon of Life*, 78: the organism can be “accounted for on the lines of the general scheme underlying the mathematical-mechanical world-picture: on the lines of teleological indifference, efficient cause, inertial uniformity, quantitative extensity, and so on. In an ideal analysis of this kind, the apparent sameness and individuality of the organic whole will resolve itself . . . as an incidental result . . . and all the features of a self-related autonomous entity would, in the end, appear as . . . fictitious.”
\(^{250}\) Ibid., 231.
\(^{251}\) Ibid., 70.
\(^{252}\) As Evan Thompson says in presenting Jonas’s thoughts on this point: “we are bodily beings ourselves, and we experience inwardness and purposefulness in our dealings with the world.” *Mind in Life*, 163
\(^{253}\) *The Phenomenon of Life*, 88, n. 15: “We take the ‘menta’ realm [i.e., the mode of conscious, free, teleological, and holistic existence] to comprise all forms and grades of *subjective* being, down to the dimmest ‘feeling’ of the amoeba.” Emphasis original.
In the same vein, Jonas contends that we must resist the temptation to try to achieve some “ideal analysis” of the organism or an abstracted, “computing” perspective on it. Even a divine mind who does not have direct experience of organic being will be unable to understand what it means to be an organism. In fact, says Jonas, our very embodiment, “stubbornly denied or maligned in the history of epistemology,” becomes critical and necessary. Bodily organic being—in which a metabolic, holistic, free, and minded living thing, qua subject, continuously enacts its existence over and against matter in a systematic manner and is thus “totally and constantly the result of its . . . [own] activity”—can only be intuited and known properly by those who likewise enact “organic existence.” “On the strength of the immediate testimony of our bodies,” we gain “inside knowledge” of the meaning and being of the organism.

Jonas’s phenomenological approach to philosophical biology in general is also a possibly helpful corrective to certain trends in contemporary science. Such trends we see in the attempts to treat organisms in a purely objective fashion, to place them in controlled environments, to try to explain them though both literal and metaphorical dissection, or to consider the study of living things tantamount to experimentation with molecules in a lab. Contemporary biology often approaches its subject matter in a similarly sterile and even de-natured fashion. In this way, it may

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254 Ibid., 78.
255 Ibid., 90.
256 See Ibid., Third Essay, “Is God a Mathematician? The Meaning of Metabolism.” In response to the original query, Jonas, at the end of the essay, says “no” in an unequivocal manner, precisely because God, as the creator of (and hence knower) of Life, could not create and know Life as such if he were merely a mathematician. (Ibid., 92)
257 Mortality and Morality, 67.
258 Ibid., 64.
259 Ibid., 67.
260 The Phenomenon of Life, 79.
run the risk of reducing away the organism. According to such approaches, “the organism is nothing but the molecules of which it is made.” The understandable pursuit of objectivity may sometimes lead to a destruction of the very thing worth considering.

Jonas, on the other hand, works toward a philosophical biology in which we intuit and try to explain organisms, as such. The organism—in its wholeness, its structured complexity, its freedom and differentiation from matter, its being in the world, and its enactment of subject-like existence—stands as the proper (indeed endlessly fascinating) subject matter of biological study. The organism, so understood, can never truly be and thus can never truly be studied removed from the natural world. Jonas treats the organism in its own right, as it exists, and opposes the tendency to reduce the organism to some collection of deoxyribonucleic acid, proteins, cellular functions, or environmental factors.

To see clearly the significance of Jonas for contemporary science, especially contemporary biology, we can close this section by quoting from Carl R. Woese.

Biology today is little more than an engineering discipline. Thus, biology is at a point where it must choose between two paths: either continue on its current track, in which case it will be mired in the past, in application, or break free of reductionist hegemony, regenerate itself and press forward once more as a fundamental science. The latter course means an emphasis on holistic, ‘nonlinear,’ emergent biology—with understanding evolution and the nature of biological form as the primary, defining goals of a new biology.

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*Jonas’s Philosophical Biology and Environmental Ethics.*

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263 The organism, as such, has “an inner identity of the whole, transcending any particular . . . substratum.” *Mortality and Morality*, 67.
Jonas’s philosophy of the organism also helps provide conceptual support for environmental ethics. I think that Jonas’s thought serves two important tasks for such ethics.

First, Jonas’s understanding of the organism avoids the intellectual schizophrenia which could characterize other philosophies of Life and their attempts to present an environmental ethic. To see why, we should first turn to an analogous situation, i.e., an attempt by a material reductionist to defend the inherent dignity of the human person. Such a thinker simultaneously denies the existence of a possible locus of value in the person (e.g., a soul) and tries to argue for that same person being valuable. The conclusion to his reductionist thinking seems to undermine the very possibility of there being persons as such, let alone personal dignity. In response to the question, “what is it about the person exactly that is so valuable?” such a philosopher would find it quite difficult to form a cogent response. A similar difficulty obtains for a material reductionist attempting to argue for the value of Life. Granted, he could posit an ethic of the biosphere (in the vein of Aldo Leopold), according to which the “integrity, stability, and beauty of the biotic community” are the basic goods of Life and thus ought to be respected. In that way, he could contend that the material components of organisms—which are, for him, the real entities of Life—constitute a biospheric reality with sufficient integrity, stability, beauty, etc. to be a good toward which we should exercise ethical concern. But if he were to argue for the value of organisms and posit specific duties based on that value—e.g., that we ought to refrain from hunting certain big game animals—then he leaves himself open for the same sort of criticism we saw above. Such a philosopher of Life, with his material reductionism, presents organisms as devoid of ontological integrity and as the seeming epiphenomenon of more basic and real components and functions. He thus undercuts the idea that there is something worth defending in the organism (or its species)

precisely because he undercuts the ontological status of the organism (and thus its species). If the organism is merely some collection of parts, why does it, as such, deserve any ethical consideration or respect? Even if the cellular organization of the organism is something marvelous, that does not imply that the organism in which such a structure obtains is worthy of ethical consideration. A reductionist philosophy of Life leads to the destruction of the very thing whose value can undergird environmental ethics.

However, Jonas’s thought, as we have seen, avoids such an unenviable position. Jonas defends the ontological integrity of the organism. For Jonas, the organism is a holistic, non-reducible, and self-like being, which teleologically and (as we have discussed in this chapter) mindedly interacts with the world and indeed acts over and against it to maintain its own existence as such. In fact, he discusses the organism as its own self-realized end per se. Of course, such a position does not prove that the organism, in virtue of being its own end, possesses sufficient value to warrant ethical consideration. What it does do, though, is to lend credence to the idea of the organism as a proper object of ethical action, insofar as the organism is a real ontological entity, not some collection of molecules or other parts, on which is its own end. To borrow from Kant here: whereas in the aforementioned reductionistic approach there was not something which, per se, possessed inherent value and should be treated accordingly, Jonas, on the other hand, does understand the organism such that it could possess such value. Jonas’s thought presents living things such that they, metaphysically speaking, are really there. There is a genuine, holistic, and non-reducible existence to the organism, which supports their ethical status.

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266 See Philosophical Essays, 199. “The telos of the organic individual, the teleology of individuality as such, is the acting out of the very tension of the polarities [e.g., self and world], and thus the process of its existence as such.”
In this regard, the organism could inspire the sort of attitude that Dietrich von Hildebrand terms “reverence.” According to von Hildebrand, “reverence is the attitude which can be designated as the mother of all moral life, for in it man first takes a position toward the world which opens his spiritual eyes and enables him to grasp values.” A reverent “man . . . is humble” before the value-laden world in which he exists. The reverent person will also be oriented toward “understanding the dignity and nobility of being as such” He will encounter the “value inherent . . . in a blade of grass, precisely as a being, as an entity that possesses its own being, which is such and not otherwise.” A value-response to the world is an encounter with the beings of the world, as they are in their ontological integrity. Ethics (or at least a reverent recognition of value) arises out of the proper seeing of the existence of living things, as such. Hence, when we bring von Hildebrand’s thought into dialogue with Jonas’s ideas, we see that Jonas presents the organism so that it is a real, value-laden being that can be intuited as such by someone with the proper attitude of reverence.

Granted, this discussion of von Hildebrand’s thought in relation to Jonas’s leaves unasked (and thus unanswered) numerous questions, such as “can we weed a garden if a blade of grass is really so valuable?” A more in-depth thinking together of these two continental philosophers would have to address these and other similar questions and issues. Unfortunately, such a task lies beyond the scope of this dissertation. What is within the scope of this dissertation, however, is to articulate what we have just seen pursuant to the discussion on von Hildebrand, namely that the ontology of the organism offered by Jonas could readily support the idea of the organism as an

268 Ibid.
269 Ibid., 2.
270 Ibid.7.
271 Ibid.
object of ethical consideration. Jonas’s holistic philosophy of Life thus avoids the intellectual schizophrenia and pitfalls we saw above with a material reductionist philosophy. Unlike such modes of thinking, Jonas’s thought could easily provide support for environmental ethics, especially as they concern the organism and its possible value.

A second way in which Jonas’s thought provides support for environmental ethics concerns the issue of belonging. This issue we see brought out clearly in Pope Francis’s *On Care for our Common Home: Laudato si.* Pope Francis contends that environmental stewardship depends on our sense of kinship with the natural world. “If we approach nature and the environment without . . . the language of fraternity and beauty in our relationship with the world, our attitude will be that of masters, consumers, ruthless exploiters, unable to set limits on their immediate needs. By contrast, if we feel intimately united with all that exists, then sobriety and care will well up spontaneously.” He likewise states that this is more than an issue of how we experience the natural world; it is also, an issue of anthropology. “Modernity has been marked by an excessive anthropocentrism which today, under another guise, continues to stand in the way of shared understanding . . . An inadequate presentation of Christian anthropology gave rise to a wrong understanding of the relationship between human beings and the world.” According to Pope Francis, we need to see the natural world as fraternal—i.e., something akin to us to which we can relate deeply and well—and we need to understand ourselves as part of, not removed from, the natural world.

Obviously, Jonas’s thought pertains to both the issue of intentionality and anthropology. In terms of intentionality, we can recall the discussion from above concerning Jonas’s ideas that

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273 Ibid., 11.
274 Ibid., 116.
we encounter the beings of the natural world in an inter-subjective manner. For Jonas, organisms are given in our experience as “selves,” as holistic, enformed, systematic, non-dualistic, and unified entities. We intuit them in a manner similar to how we grasp ourselves. “We have in our own self-experience, as it were, peepholes into the inwardness of [living] substance, . . . of how to it is to be real, to act and be acted upon.” In terms of anthropology, Jonas insists that man should never understand himself sundered from the natural world. Jonas states that man should “no longer see himself in metaphysical isolation.” He likewise, as we have seen, criticizes sharply the existential thought which leads to “the disruption between man and total reality [that] is at the bottom of nihilism.” Jonas is therefore precisely the sort of philosopher whose thought could indeed help us Care for Our Common Home. (And given the urgency of certain environmental issues, such help is sorely needed. It will be interesting and exciting to see the ways in which Jonas’s thought can be used to articulate and complement Pope Francis’s theology of the environment.)

Final Thoughts

This concept of “home” provides a helpful and appropriate way to close our discussion on the types of teleology in the thought of Hans Jonas. It is especially fitting also because it provides a clear articulation of the manner in which Jonas’s philosophy differs from and overcomes the possible nihilism of Heidegger’s philosophy. After all, Heidegger in the beginning of his

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275 The Phenomenon of Life, 91. Emphasis original.
276 Lawrence Vogel, “Hans Jonas’s Exodus,” 9: “Jonas’s whole philosophy aims at providing a reasonable account . . . of why it does make an objective difference how we relate to nature because living nature, from which our own caring selves emerge and on which we depend, is essentially good, is worth being cared for, even cares that we care for her so that we, her most magnificent creation, can continue to be.” See also Memoirs, 241: “the earthly world is our world.”
277 Ibid., xxiii.
278 Ibid., 234.
*Fundamental Concepts in Philosophy*, posits that man is fundamentally homeless. And it was precisely this sort of homelessness which—as we discussed in Chapter One—could lead to man having no sense of or response toward real value in the world.279 Man, as homeless, has no connection to and thus no care for the world around him. For Jonas, however, the exact opposite is the case. In the end, I believe that Jonas’s philosophy of teleology reminds us of this wonder-filled world we inhabit and which we call home. After all, says Jonas, we live in an organic community whose members, qua teleological, are likewise free, minded subjects, irreducible and holistic beings which can never be adequately explained by physics, chemistry, molecular biology, or any combinations of these sciences. Jonas thus opens the door for genuine wonder at and contemplation of Life, such that Life is truly worthy of having its own *logos*. To read Jonas, therefore, is to journey toward the heart of organic existence and begin to encounter the depths and marvels which obtain therein.

In that same vein, I think that a careful student of Jonas’s teleology (and his thought in general) will feel toward him a certain debt of gratitude. It is not so much that Jonas proves, logically and abstractly, the structure and modality of organic existence. Rather, in a manner similar to his teacher, Heidegger, Jonas helps illuminate for his readers the possibilities inherent in the world all around them. Jonas has articulated a sense of the natural world such that it is undeniably worthy of questioning. In fact, as we have seen throughout this chapter, significant concepts of Jonas’s remain open to criticism and continued questioning. Nevertheless, I do not feel this to be ultimately a shortcoming on the part of Jonas. After all, he is examining the mystery of Life, and, as such, his examination is necessarily incomplete. Gabriel Marcel states that such a “mystery . . . is something in which I find myself caught up, and whose essence is therefore not

279 See pages 32-35 of Chapter One.
before me in its entirety.”

Richer experience, greater appreciation, and perhaps even a deeper sense of awe, rather than merely intellectual achievement or problem-solving, are the ultimate goals of an encounter with such mystery. To speak a bit more poetically but still just as accurately: Jonas’s philosophy concerning the ways in which “purpose in general is indigenous to nature” serves to paint a multi-faceted, illuminating, and, in the end, quite beautiful picture of that same nature.

Jonas himself once said: ‘for me, the world was never a hostile place.” This is a fairly remarkable statement given the enormous suffering he experienced, including a forced departure from Nazi Germany, fighting in WWII, and the loss of his mother at Auschwitz. Yet I actually think it incorrect, when read in light of his philosophy. Jonas’s philosophy articulates the world such that it is much more than merely not hostile; it is in fact hospitable, inviting, and a proper home. It is the place we are ontologically called to “care about.” Indeed, says Jonas, “nature retains her dignity,” such that “ourselves being among her children, we owe an allegiance to the kindred total of all her creations.” We belong here, we are at home here, and we have an obligation to be responsible for this world. We thus inhabit a world that invites us constantly to dwell more deeply within it. In this fashion, we can become more and more attuned and responsive to the “mute things” all around us—the holistic, en-formed, free, conscious, and purposeful organisms, as well as the material universe itself in which mind is always already “asleep.”

281 The Imperative of Responsibility, 74.
282 Memoirs, 246.
283 Mortality and Morality, 197.
284 The Imperative of Responsibility, 137.
286 Ibid., 181.
Allow me to close with a brief use of lines from poetic literature. The poet Joyce Kilmer, like Jonas, fought in a world war, in his case WWI. And like Jonas, he was deeply attuned to the natural world, such that he could pen the following, immortal verses: “I think that I shall never see, a poem as lovely a tree . . . . Poems are made by fools like me, but only God could make a tree.” Kilmer thus articulates poetically what Jonas has said philosophically about the wonder-filled, endlessly fascinating, and awe-inspiring world of organisms to which we belong. In that way, Jonas’s thought invites us to follow the counsel of another poet, T.S. Eliot: “We shall not cease from exploration. And the end of all our exploring will be to arrive where we started and know the place for the first time.” May Jonas’s philosophy continue to guide such explorations back home to the natural world in which we belong!

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