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The Role of Production in Human Flourishing

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

Philosophy

by

Tristan Francois de Liège

September 2021

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2021

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ABSTRACT OF THE DISSERTATION

The Role of Production in Human Flourishing

by

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Doctor of Philosophy, Graduate Program in Philosophy
University of California, Riverside, September 2021
Dr. Jozef Müller, Co-Chairperson
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In recent decades, Aristotelian Naturalism has come to fruition as a powerful and unique approach to ethical philosophy, one which aims to ground our understanding of moral goodness in human nature considered from a perspective continuous with biological evaluations of natural soundness and defect. Moreover, this approach, following Aristotle, aims to integrate an account of human flourishing or well-being with moral goodness and virtue. However, philosophers in this tradition interestingly tend to say very little about the role of productive activity in a good life. Upon investigation, this is a consequence of a wider perspective on the nature of moral goodness, and how it relates to hu-

man function from a biological perspective. In examining this problem, I find that a new understanding of human function is needed, which in turn makes better sense of our core human capacities, including our capacity for production. I argue that Aristotle's dismissal of productive activity is flawed and should be jettisoned, and that in fact production is a central constituent of a good human life, since human flourishing must be a self-sustaining activity, and production is the means by which human beings sustain their distinctive way of life, from both a material and a psychological perspective. From a material perspective, production is the means by which we can physically subsist and achieve safety and comfort, or produce values to trade with others for the same goal. From a psychological perspective, productive activity offers a unique kind of motivational power in our lives that enables us to achieve important values such as self-esteem and a sense of purpose. However, cultivating productive activity in one's life in an excellent way is not easy, and requires the right disposition. This disposition I call the virtue of creativity. Creativity is the emotional disposition and intellectual grasp of the value of productive work in one's life. On my conception, creativity involves two central components: a *techne* component (which involves pursuing excellence in a given craft domain) and a *poesis* component (which involves translating ones's productive effort into a materially sustainable activity for one's life).

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Introduction

I. A Gap in Neo-Aristotelian Ethics

This dissertation is about production, or productive activity. I mean by this term (which often we refer to non-technically as "work") intellectual effort that produces value that contributes to human sustenance and/or the enhancement of human life. This activity I understand as performed excellently when undertaken from the motivation of developing a practical craft or *technē* and the understanding of that craft.[1]

I locate this project within in the Neo-Aristotelian tradition of ethical naturalism, which has gathered significant interest and discussion in the last two decades. Broadly speaking, I take the views in this tradition to aim at providing an alternative to deontological and consequentialist approaches to ethics. This alternative focuses on ethical reflection and evaluation in what it means to live a certain kind of life or be a certain kind of person (and hence a focus on virtue, and *eudaimonia* as an activity in accordance with virtue). Neo-Aristotelian naturalism attempts to locate a naturalistic and yet objective foundation for ethics in the requirements of human nature, in a way similar or analogous to the natural goodness and defect that can be found in the natural world. For instance, just as a deer might be identified as a good (healthy) instance of its kind insofar as its body is in a proper functioning state and it successfully pursues its goals of food and evading predators, a human being with a morally good character may analogously be

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[1] *Technē* is here understood as the perfected form of productive activity or craft, described by Aristotle as 'state involving true account (logos) concerned with production (*poiētikē*)' (NE 6.4, 1140a10).

identified as a good instance of a human being. Given human agency, this in turn involves some account of the transformative and guiding power of human rationality and how it can be applied to harmonize our rational and emotional capacities in realizing the human good.[2]

From the Aristotelian perspective, ethics is the study of the principles, traits of character, and choices we need in order to become the best version of ourselves - and through that endeavor, achieve our own flourishing and happiness. There is however something that seems, on the face of it, crucial to a good human life and yet is is also something the Aristotelian perspective, perhaps due to tradition, omits: production.

What I have found is that Aristotelian and Neo-Aristotelian approaches tend to either ignore or downplay productive activity; on my view, this is a mistake, since it is a central feature of a good human life.[3] Philosophers writing on ethics in the Aristotelian tradition do not think productive activity is unrelated to human flourishing, of course, and occasionally will cite "industriousness" as a virtue (though never, to my knowledge, with special treatment or extended discussion).[4] However, even this is uncommon, and the

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[2] My formulations of what characterize these approaches, generally speaking, is based in large part from "Aristotelian Naturalism —Human Nature, Virtue, Practical Rationality" by John Hacker-Wright, Martin Hahnel, and Micah Lott.

[3] Often, when work is mentioned, it is rather tangential; see, for instance, Martha Nussbaum's "Human Rights and Human Capabilities," (287-8) where work is discussed as the last part of the second half of the tenth human capability. It is striking that in this scheme, work is so tangential that it falls below concern for animals and plants and play. Obviously, it may be that in our modern society with a 40 hour work week, we are unduly focused on the wrong capabilities in our social organization. I hope to show that, on the contrary, work is a central liberating and engaging activity in a good human life.

[4] Foot writes of industriousness that ""[T]here is, for instance, a virtue of industriousness only because idleness is a temptation" "Virtues and Vices," in Virtues and Vices (Berkeley: University of California Press, 1978) p. 9. This strikingly, in my mind, undersells the importance of work in human life by suggesting that its only value is to avoid idleness.

view that production is not properly a moral subject is a widespread one. Judith Jarvis Thompson offers a clear expression of this approach in her view that industry is an "all-purpose" virtue rather than a moral virtue, since it can be done for nefarious ends.[5]

It is crucial here to identify the problem at hand; I do not mean that these philosophers *explicitly* downplay productive activity as irrelevant, or even that they are conscious of not writing more about it. Aristotle himself recognized that some class (or underclass) of people in society need to work on creating and using tools to satisfy human needs so that others can exercise the virtues of character.[6] Similarly, no contemporary philosopher now could plausibly (or would) deny, if pressed, that to flourish humans need the benefits of productive activity: we need people to build automobiles and other machines, to efficiently grow and sell food, to build and design houses and other structures. What is being (in my view, problematically) denied, instead, is that productive activity is important for *ethics*[7]: that productive activity has moral relevance for one's character and plays an important ethical role in one's own life, not merely as an external benefit one can receive from others, or an unfortunate necessity, or an important but in itself amoral

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[5] See, e.g., "The right and the good," *Journal of Philosophy* 94 (1997), 273-298; "Evaluatives and directives," Chapter 7 of Gilbert Harman and Judith Jarvis Thomson, *Moral Relativism and Moral Objectivity* (Cambridge, MA: Blackwell, 1996), pp. 125-154; "Goodness" and "Moral requirement," Tanner lectures, Princeton University, March 24-25, 1999.

[6] *Politics* 1337b5-15.

[7] Henceforth I refer to Aristotelian ethics, and ethics in the Neo-Aristotelian tradition, simply as "ethics."

sphere of life, but as a central activity that organizes and drives one's life and its ethical character.[8]

So, Neo-Aristotelian faces the interesting problem that it aims to capture what is centrally important to our well-being in its account of ethics; and yet this crucial activity, which we spend a great deal of our lives engaged in, is largely left out. A natural question would be: how did we get here? I believe it is not an accident that productive activity has such a diminished role in Aristotelian ethics. The problem is rooted in deeper issue (as do most issues in philosophy) - a specific view of the structure of practical reasoning, and its relation to human flourishing.[9] To see this more clearly, we need to return to Aristotle's basic division of reasoning into the productive, practical and theoretical, and the activities based upon these - an issue I will explore in more depth in Chapter III. However, it is worth offering here a quick review of the source of Aristotle's dismissal of production as having central importance in ethics. In what follows, I am understanding productive activity to have a wide scope of what is normally called "work." This would therefore include services such as the services provided by doctors, lawyers, restaurant owners, truck drivers and so on despite their being no physically tangible or "material" value provided, in addition to the clear cases of production as in building houses or growing food. This is

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[8] By the ethical character of one's life, I mean here that productive activity provides a central foundation for the cultivation of a life of virtuous activity. It provides this foundation by integrating one's other virtuous activities and values and sustaining them through trade or production and enhancing motivation.

[9] I do not mean, of course, that Neo-Aristotelians have necessarily consciously inherited this view of reasoning from Aristotle. There are a wide range of ethical approaches now that plausibly count as "Neo-Aristotelian" and may have differing views on this issue. However, I think to the extent productive activity is underemphasized in ethics, it is a product of Aristotle's influence.

consistent with Aristotle's usage of "production" in *NE*. My view of productive activity and its importance will be made clearer when I defend my conception of production in Chapter IV, and my conception of creativity as a virtue in Chapter V.

II. Aristotle on Productive Activity

In the beginning of the *Nicomachean Ethics*, Aristotle makes a distinction between activities that are for the sake of themselves and those that are for the sake of a separate product. The former are further subdivided into two: practical activities, whose end is action, and contemplative activities whose end is thought.

In the latter case (activities aimed at products), the actions involved in the activity are only good or useful insofar as they contribute to the product in question: medical activities are only good for the production of health, shipbuilding for the sake of ships, and so on. The actions for the sake of these products are only instrumentally good, and therefore not sought for their own sake. Put another way, if we could have health, ships, wealth, and houses without needing to take any actions to get them, the productive activities contributing to those products would not be valuable.[10]

On a common interpretation of Aristotle's ideal state, the lives of the craftsmen and producers (*banausoi*) are centered around creating these products so that the city can thrive; in doing so, they allow others who have leisure to exercise virtue and engage in

[10] They might be valuable in other ways, if we for instance found the activity of shipbuilding aesthetically pleasing. But they would not be valuable *qua* productive activities.

contemplation.[11] Aristotle discusses in various places how productive thinking exists to compensate for the fact that humans lack natural ways to fulfill their survival needs and sustain themselves and therefore must produce artifacts in order to live.[12] On such a view, productive work is base (or at least not noble) and in fact excludes the possibility of virtuous activity,[13] since it takes up time and resources that could otherwise be applied towards virtue.[14] And in fact we do see in Aristotle a deep division (common to Greek thought)[15] between that which fulfills human necessities and that which constitutes the human good (which shall be explained further in Chapter III).

The very nature of productive activities - that they are valuable just insofar as they contribute to the creation of a product separate from the activities themselves - and therefore the creation of all human necessities - is what renders them less valuable and there-

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[11] Some more recent commentators, such as Cary Nederman, argue that productive reasoning is actually regarded by Aristotle as a virtue, corresponding to excellence in productive thinking as a perfection of the rational part of the soul. On that view, the exercise of productive thinking would be part of the end of a good life based around rational activity, rather than being a merely instrumental means to that life. However, this is not a common interpretation of Aristotle. See also Rachel Barney, "Aristotle on the Human Function," 315.

[12] (*PA* 4.10, 687a23-b4), (*PA* 4.10, 686a25-b28), (*M* 1.2, 982b20- 5).

[13] (*Pol.* 1264b22-4, 1277b33-1278a21, 1319a24-30, 1328b33-41, 1329a19-29).

[14] Jozef Mueller, writing about productive thought in Aristotle, has made an important point regarding productive thought that relates to this issue. He notes that productive activities may be done not for the sake of one's own good (e.g. baking bread to make a profit) but rather for the sake of the purpose for which they came to be: in the case of baking bread, to feed those who are hungry. And doing productive activities in this way would in fact give them moral value - they are done for their own sake in the sense that they are chosen for the same reason that the actions and craft associated with them exist in the first place. The distinction between virtuous activity and productive activity exercised excellently on his view is primarily a matter of the difficulty and importance of the goals being achieved: e.g., the preservation of the polis through justice is a more complex and difficult matter than excellence in baking bread or any other specific craft. (Mueller, "Practical and Productive Thinking in Aristotle").

[15] See for instance, Plato's *Republic*, 369b-372c where the basic city of necessities is considered insufficient for virtue, though it is a necessary step to the construction of the just city.

fore not included in the best human life, which is the self-sufficient excellent exercise of practical reasoning and theoretical reasoning.[16]

For Aristotle, this can also be related to his understanding of human function. Function plays a crucial role in Aristotle's view of metaphysics, that of course has important implications for his function argument as it occurs in *NE*. For Aristotle, "all things are defined by their function (*ergon*) and power (*dunamis*),"[17] and the function in turn determines what is good for a thing and what counts as its excellence or virtue. And for living organisms, this good is to live a certain kind of life based around excellent activity. But Aristotle doesn't see this kind of activity as one that must essentially be involved in maintaining the life of the organism itself; at least, not for a being whose life is based around perceptual or rational activity.[18] Rather, he sees it as more broadly characteristic or defining activity of the entity in question. So even if it is true that the production of crafts is necessary to support human functioning more generally, it is not necessary to the excellence of a *particular* human being - since the exercise of that function (e.g., the rational activity of a wise politician) itself has no *necessary* connection to the maintenance

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[16] As one commentator, Gregory Salmieri, has written, this result may come from Aristotle's viewing life as composed of a collection of intrinsically valuable activities. Productive activities are by their nature not intrinsically valuable and therefore are primarily an obstacle or hindrance to life's true aim. However, as he suggests, we need not abandon Aristotle's eudaimonism (the idea that life and practical reasoning is structured towards an ultimate end of flourishing) to abandon the idea that some activities are intrinsically valuable in this way. Instead, we can view all activities that compose a life as instrumental to the overall life itself - instrumental in sustaining it and enhancing it ("Aristotelian Ethics Without Exploitation?").

[17] (*Pol.* I.2 1253a24)

[18] This would be true for organisms whose life (soul) is nutritive, like a plant, and therefore would include the human capacities that are themselves operative on a nutritive level, such as digestion. (De an. 416a19; cf. 415a23-6)

of his life. At most, that implies that some unfortunate human beings must sacrifice their excellent functioning so that others can exercise it.[19]

So, in sum, we find two reasons in Aristotle why the productive activity is demoted to an inferior status relative to virtuous activity. The first is that Aristotle's good life is composed of activities he sees as intrinsically worthwhile and not for the sake of some further product. This requires a separation of activity into productive and practical, with only the latter being worthwhile "for their own sake." The second is that he sees 'function' primarily as a way of identifying the *characteristic activity* of entities, rather than (in the case of living organisms with capacities beyond nutrition) as a characteristic form of self-maintenance of those entities. In a sense, these are two aspects of the same issue. This is because if function is understood as pursuing what is "most characteristically human" or some such description, *as against* that which is required for the maintenance of human life, then presumably there will be some such activity that intrinsically embodies or captures that function. In other words, the best candidate will be something that is seen as intrinsically valuable — such as noble action or contemplation.

However, despite its many criticisms (including the ones I have myself brought forward), Aristotle's Function Argument remains a powerful framework for understanding the nature and origin of normative requirements, or so I shall argue. And indeed, it plays a crucial role in the argumentative framework taken up by Neo-Aristotelian naturalists such as Philippa Foot and Rosalind Hursthouse. The answer to Aristotle's problemat-

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[19] Which is precisely the exploitative element Gregory Salmieri writes about (ibid.).

ic view of function, and consequent prejudice against productive activity, then, is not to discard it, but seek a view of function that fully integrates all organismic activities in a unified way; this, as I explore in Chapter I, can be found through an examination of the contemporary literature on functions.

Moreover, as it turns out, there is a sense in which I think Aristotle is right that the best life is composed of activities that are done for their own sake. This is because "doing things for their own sake" is a description of full rational engagement and self-determined motivation in an activity, which is crucial to flourishing. This is also what we can clearly see from reflections on the nature of practical reasoning and happiness, which form the core of eudaimonism, as I shall argue in Chapter II. However, I shall argue that productive activity, when pursued excellently, is grasped and experienced as an activity worthwhile in itself, from a certain perspective. But in seeing function as a form of self-maintenance, I will argue (in Chapter I, and again indirectly in Chapters IV and V) that all excellent human activity is for the sake of one's life, and therefore in that sense a good life only includes instrumentally valuable activities — instrumental in that they contribute to a unified whole.

III. A Central Role for Productive Activity.

I began with the observation that productive activity does not have the important role it seems it should have in Aristotelian approaches to ethics, despite the focus of those approaches on living well as human beings and the fact that productive activity is central-

ly important in most of our lives. We saw that in Aristotle this is a consequence of his view of living well as the pursuit of intrinsically valuable activities insofar as is possible. What I want to argue, instead, is that we can maintain the centrally important foundational pieces of Aristotle's view of virtue and *eudaimonia* and understand the human good, or rather excellent human functioning, in a way continuous with the foundation of the natural goodness in other animals and plants.[20]

To arrive at this view and fully vindicate it, I shall begin at the beginning - at the foundations of ethics in biological facts about functioning. This is because I think to fully understand the role of productive activity in a good human life, we need to understand what human life fundamentally is, and how human nature gives rise to ethical normativity. In particular, I think Aristotle was right to look at functional explanations and ascriptions as a guide to understanding how normativity arose in nature. However, I think functional explanations are not merely a way to see what defines characteristic activities of living things and their parts, but also figure in explanations of what it is for a living thing to be living a certain kind of life. This idea, explained in Chapter I, is inspired in part by examining certain aspects of Aristotle's biological works alongside an investigation of contemporary theories of function in the philosophy of science. Ultimately, my view is that functions are elements of a *bios* - a way of life - and that the *bios* considered in this integrated way provides the normative grounding of the well-being of living organisms,

[20] This does not commit us to a view that the good of humans or other organisms consists in anything like "bare survival," because the best way to understand the sustenance of organisms is in terms of the excellent execution of their functional traits, working together to create a self-organized and differentiated whole.

including human beings. This suggests a way of thinking of human well-being as maintaining a network of integrated and coordinated values, and human functioning as making possible the sustenance of oneself as entity pursuing those values. Crucially, my argument depends on locating a functional role in the human *bios* for ethical concepts - one that allows us to validate putative virtues and conceptions of *eudaimonia* and discriminate objectively among competing conceptions.. Next, in Chapter II, I apply this way of thinking about the functioning of living organisms to show that *eudaimonia* must be a self-sustaining activity, insofar as it is the activity of a living being functioning well. This suggests a formal constraint on conceptions of *eudaimonia* that are suitable for the human *bios*: namely, it must involve self-sustenance. I also explain the other key elements of eudaimonism as they are widely understood in the Neo-Aristotelian tradition, to set the stage for understanding how productive activity fits into that framework. At this point, in Chapter III, I examine Aristotle's demotion of the creative life in more detail, as a way of clarifying and contrasting my view. I argue that we need not abandon Aristotle's key insight about the nature of our activity in a good life - namely, that we should pursue a life in which our actions are chosen in part for their own sake. Once we properly understand this view, it need not rule out a life centered around production; on the contrary, it demands it. However, we should abandon his view that a good life is based around pursuing activities that are exclusively intrinsically valuable, and reject his sharp distinction between productive and practical activity. In Chapter IV, I use the ideas laid out so far to argue that production is a central constituent of *eudaimonia*, and show how it meets the

conditions of eudaimonia that I laid out: it is an activity that makes life self-sustaining, properly organized around and experienced as an ultimate end, and self-directed. Fully understanding this requires seeing how human survival is essentially connected to production, and that production contributes to psychological well-being in several key ways, which I highlight using lessons from recent psychological literature. In Chapter V, I argue that creativity is a virtue, and is the virtue by which we attain and excel in the value of production in a good life. I use considerations from both existing philosophical literature and psychological literature to show that creativity meets the structural and cognitive requirements to count as a virtue. Moreover, I show that creativity in my sense requires courage and honesty, traits that are already widely accepted as moral virtues. Finally, I contrast creativity by discussing the vice of uncreativeness through the illustration of several vicious characters, who together illustrate more clearly what is at stake in being creative. In Chapter VI, I turn finally to some challenges for my brand of Neo-Aristotelian ethics and how my view is well-situated to address them. I then briefly indicate further ways in which my view can contribute to an ongoing fruitful literature of Neo-Aristotelian work.

IV. Neo-Aristotelian Ethical Naturalism

Before beginning my arguments, it is worth turning to the literature on contemporary Neo-Aristotelian ethics. I will suggest that Aristotle's problematic view of function seem to have been tacitly carried into contemporary projects. As examples, I shall briefly explore Philippa Foot's work on Neo-Aristotelian ethics and Rosalind Hursthouse's expansion of the Footian view. While a more thorough survey of Neo-Aristotelian ethics is not possible here, I use these views as an indication of certain assumptions that are more widely shared.[21] I shall argue that the problems in accepting the Aristotelian assumptions ultimately lead Neo-Aristotelian ethical naturalism to an internal tension with its own relation to naturalism; if human agency is seen as functional in a way that defies or is disanalogous to biological functioning, then the very foundation on which the approach began (locating the sources of normativity in natural goodness and defect) is threatened.

A. Foot on the Human Good

The Neo-Aristotelian project revives certain key philosophical assumptions and arguments from Aristotle's ethical approach, but utilizing a modern ethical framework with a somewhat different conceptual apparatus (as well as discarding certain non-essen-

[21] In any case, the primary goal of this project is to present a case for a virtue of creativity, not to provide an extensive critique of existing Neo-Aristotelian views.

tial elements[22]). In particular, Neo-Aristotelian ethics (as seen for example in the work of Philippa Foot)[23] has as a central feature the view that human goodness, and rightness in action, are to be understood in terms of virtue, and that this goodness is a kind of natural goodness in the sense that it is continuous with other facts about our nature, and the nature of other organisms.[24] Neo-Aristotelians typically make these claims in conjunction with the Aristotelian view that the human good or flourishing, achieved in action through virtuous activity, is the exercise of practical rationality over a lifetime. What is crucial for this project is identifying the sense in which human natural goodness is both continuous and discontinuous with the natural goodness of other organisms;[25] broadly, this is often understood in terms of the fact that human beings have a distinctive life form and unique nature (like other organisms) but that unlike other creatures, this form of life essentially involves acting, choosing, and responding to reasons.

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[22] For instance, Aristotle's view that women are inferior to men by nature in *Politics* 1254b13–14. More importantly, most Neo-Aristotelians abandon any version of the view that the best life is a life of contemplation. See Nancy Snow, "Neo-Aristotelian Virtue Ethics," in *Oxford Handbook of Virtue Theory*.

[23] Of course, there are many variants of Neo-Aristotelianism. But I find a central commitment to eudaimonist ethical naturalism in the works of philosophers such as Julia Annas, Michael Thompson, Warren Quinn, Gavin Lawrence, Rosalind Hursthouse, Paul Bloomfield, Daniel Russell, Mark LeBar, and other Neo-Aristotelians that suggest that her work can be taken as representative of a class of philosophical approaches. I am not claiming here that Foot is to be taken even as a primary representative of the views of these philosophers, but at least it has emerged as one of the most centrally discussed and interesting approaches in the Neo-Aristotelian tradition.

[24] This has become a standard way of characterizing the distinctive feature that sets virtue ethical approaches apart from deontological and consequentialist approaches. See Gary Watson, "On the Primary of Character," Jason Kawal, " In Defense of the Primacy of Virtue."

[25] My own view, as will be made clear in the next chapter, is that human natural goodness is continuous with the natural goodness of other organisms insofar as our distinctive functional capacities (reasoning, complex emotions, etc.) properly function as part of a self-sustaining process of maintaining a way of life, but that human goodness is discontinuous insofar as human values have to be chosen, discovered, or created rather than automatically pursued by drives or instinct.

We can see Neo-Aristotelian ethics at work very clearly in Philippa Foot's book *Natural Goodness*. In that book, Foot frames her concern as being primarily geared towards the issue of understanding moral *judgments*; but her way of expounding upon this issue, and giving an account of moral judgment, is reflective of, and addresses her broader view of ethics. This general approach is based on the idea that we discover how human beings become good, and live well, by understanding the characteristic activity that define human beings. The characteristic activity that defines us, for Foot, is practical rationality: our need to act for reasons that justify and explain our actions, choices, and ends. Part of excellence in practical rationality is excellence in making excellent moral judgments, in addition to excellence in prudential judgments. Foot conceives of moral judgment as analogous to an evaluation of other living beings in nature - trees, animals, and so forth - as things whose lives can go well or badly, and can be evaluated as good or bad instances of their kind. Such evaluations are objective, for Foot, because they depend not on anyone's preferences or desires with regard to the person or organism in question, but on how successfully they engage in their characteristic activities. So, for example, there are features of a cactus that depend upon what it is to flourish as a cactus,[26] such as having lush, blight-free flesh, and virtue makes human beings good in just the same way. These she calls "natural norms."

How does Foot arrive at her argument that human beings (and other organisms) have natural norms? To do this, she draws on the work of Michael Thompson (particular-

[26] Philippa Foot, *Virtues and Vices*, 141.

ly his essay “The Representation of Life”). She argues that to conceptualize an entity as an organism requires natural norms such as those described above. This is because, following Michael Thompson, understanding what an organism is involves understanding the “wider context” of its life form and species, which in turn is inherently normative. Michael Thompson’s argument is based upon the observation that an organism and all of its activities can only be understood if we understand the kind of processes that take place in the organism and the kinds of actions that the organism takes. For example, for a particular organism to be understood as eating something, we need to understand its ingesting food that is normally nutritious for an organism of its kind.[27] The same is true for other processes that organisms engage in: digestion, reproduction, growth.

As Foot rightly and crucially observes, the context of human beings, because of our capacity for practical reason - our capacity to plan, offer justifications and criticism of action, and address pressing normative enquiries - our understanding of the human good (despite maintaining the *structure* of the natural goods in other organisms) takes a new form:

> …when we think about the idea of an individual’s *good* as opposed to its *goodness*, as we started to do in introducing the concept of benefit, human good must indeed be recognized as different from good in the world of plants or animals, where good consisted in success in the cycle of development, self-maintenance, and reproduction.[28]

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[27] Michael Thompson, *Life and Action*, 58.

[28] Foot, Natural Goodness, 51.

Foot rightly proceeds to observe that human beings must act and make choices on the basis of justifications and chosen purposes. But Foot identifies the human function (practical rationality) as the characteristic activity that humans engage in (as Aristotle does), not as something that is needed for some further purpose or product. In other words, the excellence of practical rationality is intrinsically valuable for human beings, on her view.

B. The Problem of Objectivity

The problem with viewing human function (and therefore virtue) as the pursuit of or engagement in an intrinsically valuable activity raises a problem for the objectivity of ethics, if the objectivity of ethics is to be modeled on that of the sciences.[29] By objectivity, I mean the status of ethics as a field of inquiry which offers a standard by which competing explanations or accounts can be evaluated, which do not reduce to subjective viewpoints.[30] An objective and applicable standard must in turn be related to the goal (or goals) of that inquiry, and enable us to understand the goal and how it is to be achieved. For instance, if the goal of ethics is to achieve happiness, then part of its methods must include those that enable us to understand the goal and why other incompatible approaches (e.g., other approaches to living that fail to achieve happiness, such as, say, the ethics

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[29] I restrict my focus here to this point, since a fuller discussion of objectivity and competing conceptions of it is beyond the scope of this project.

[30] Here I rely on the familiar sense of "objectivity" from Thomas Nagel's *View From Nowhere* (144). While much more could be said on the issue of objectivity, it is beyond the scope of this work. Here, I wish merely to indicate that any ethical theory which cannot clearly show why certain ethical norms are better or worse than any another possible set of norms, from an impartial perspective, cannot claim an objective status.

of asceticism or hedonism) are ruled out (defining the goal and these constraints is the subject especially of Chapter II).[31] An objective account of *eudaimonia* and the virtues, then, would be able to fully explain why some views are worse than others according to its standard. If such an account is to be based on a view of natural function, then then we must be able to understand why certain activities or capacities constitute a proper exercise of that function and others do not, and why that proper exercise is itself valuable to the organism in question.[32]

It is in this sense that viewing human function as Foot does fails to clearly provide an objective foundation for a view of human virtue and well-being, since understanding function as intrinsically valuable renders the value of virtue opaque or unintelligible, and fails to show why one view of virtue would be more or less rational than other.[33]

For non-human organisms, the objectivity of the norms governing their evaluation are straightforward: they have no choice or possible deliberation about the kinds of lives

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[31] This is another way to put the point that part of the issue of objectivity is solving the problem ethical disagreement, as Bernard Williams puts it in 'Saint-Just's Illusion' (1991), 145. However, the issue in my mind is not quite disagreement, since it would still be present even if everyone "agreed" on a certain ethical view. The issue is rather, in thinking for herself how to answer the question of what the content of virtue and flourishing is and ruling out competing alternatives, can the ethical agent make a rational and justified determination in favor of one. Hursthouse herself, in commenting on Williams, makes a similar point.

[32] This is a variant of the infamous "Authority of Nature" challenge to Philippa Foot's view. I have reformulated it in terms of objectivity because one of my aims in this project will be to offer an account of human function that retains the objectivity of natural goodness and defect in other organisms. For discussion of the challenge, see respectively, Joseph Millum, "Natural Goodness and Natural Evil," Ratio 19 (2006): 199–213; Chrisoula Andreou, "Getting on in a Varied World," Social Theory and Practice 32, no. 1 (2009): 61–73; Woodcock, "Neo-Aristotelian Naturalism and the Indeterminacy Objection;" and John McDowell, "Two Sorts of Naturalism," in Rosalind Hursthouse, Gavin Lawrence, and Warren Quinn, eds., Virtues and Reasons: Philippa Foot and Moral Theory (Oxford: Clarendon Press, 1995).

[33] Others have raised this particular criticism of Aristotelian Naturalism, such as Gowans, C.W. (2011).

they want to live, so the evaluation of their goodness and defect is based on their ability (or not) to maintain themselves and reproduce, since they are naturally driven by these goals (i.e., this is what constitutes their lives). Therefore, there is a clear and uncontroversial link between function and the objective evaluation of those organisms (this I discuss further in Chapter I). Any assessment of their natural soundness or defect in their parts, such as the healthy fin of a blue whale, would be objectively made within that framework. We could rule out assessments of a blue whale's fin, for instance, in terms of its ability to play piano as irrelevant for its natural normativity.

But for Foot, practical reason (unlike the functions of other orgnaisms) does not serve the function of self-maintenance. If practical reason did serve that function, then the value of human functioning would be intelligible (at least to any agent with the goal of survival), and self-maintenance would serve as a standard by which successful human functioning could objectively be measured. On such a view, if it could be defended, this problem of objectivity would not arise, as the objectivity of standards of human functioning would be structurally analogous to those of other organisms.

However, since Foot fails to conceptualize practical reason as the *means* by which human beings maintain themselves and flourish, she instead regards acting in accordance with the characteristic human activity of practical reason as intrinsically valuable, which in turn prevents the above maneuver. Note that a different conception of objectivity could emerge from an account that sees virtue as intrinsically valuable; for instance, the objectivity and authority of moral norms might be grounded instead in a Kantian way, on the

basis of what a rational agent could consistently will as self-legislation. This, however, is not my target and beside the point, since to adopt such a position is to abandon the framework of Aristotelian Naturalism. What I am arguing here is rather, the objectivity that secures the natural norms in non-human organisms cannot transfer to, or work as a basis of, the norms governing human beings, if practical reason's function is not biological maintenance.

Thus, since these natural norms are her basis for her account of virtue, she fails to establish an objective grounding for a view of the virtues,[34] and leaves us without a clear way to determine, with a sufficient level of specificity, both what the content of a virtuous life is, and how a virtuous life is to be structured, against competing conceptions.[35]

To briefly further illustrate and motivate this point, consider the following two examples.

First, in the case of other living organisms, we can objectively determine, e.g., what is good for a tree and which trees are doing well because we understand the various activities of a tree as functional in maintaining the tree's overall life, and this standard

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[34] It may be objected that this was not her aim in *Natural Goodness*, since she was primarily concerned with arguing for a parallel between the evaluation of plants and animals and humans to show that certain skeptical arguments against ethics cannot work. This is fine, but the point still stands that her naturalism as presented cannot serve as an adequate basis for a virtue ethical theory.

[35] Again, production is also thereby not centrally featured in her view, despite its role in sustaining well-being. From her perspective, this should not be surprising: if virtuous activity is primarily the exercise of our characteristic activity understood as such, in different environments and contexts, there is no particular reason that we should favor or place central importance to those exercises of our characteristic activity that our necessary for the maintenance and continuation of our life. It may be of central practical importance to secure these needs, however they may be secured, if it is found they are needed in order to create spheres of virtuous activity. But that would not in itself give those activities central ethical importance, any more than the fact that I need to be near large quantities of fresh water to not die of thirst has ethical importance. Rather, production would from that perspective be merely an "enabling condition" of *eudaimonia*.

serves to determine the good of the tree. While we use the characteristic activities of organisms as a guide to their differentiation and conceptualization (e.g., when we group together 'invertebrates' vs 'vertebrates') we cannot merely rely on characteristic activities of organisms as a guide to the good of those organisms unless we can grasp the functional relation to the whole organism's sustenance. For example, the fact that a population or species of rabbit is dominated by a certain color of fur may not by itself imply a defect or natural goodness of any particular individual if it does not contribute to their survival. Foot acknowledges this point, but does not seem to find it relevant for the human context.[36] Part of the issue here, I think, is precisely the fact that she does not make explicit use or apparently consider of central importance the concept of 'function,' (despite implicitly relying upon this concept) and therefore loses conceptual clarity in explaining the content of natural good and defect.

Secondly, identifying the human good as an exercise of the characteristic activity of practical reason does not at all help us understand by itself *which* kinds of uses of practical reason and what purposes to which it is put can count as an exercise of the human good. Since the goals of other organisms are more or less set by their nature and instinctual behavior, this is not an issue for determining their goodness. For instance, there is no issue for a wolf of deciding whether to hunt with the pack to get food or to try to domesticate some cows for food; wolves are not rational agents and cannot decide between competing conceptions of life. But if, for example, a human being exercises practical rea-

[36] *Natural Goodness* 30-31. See the example of the blue spot on the bird's head.

soning by practicing Sharia Law,[37] we need some way to objectively determine whether (and why) that exercise of the characteristic activity is wrong or defective compared to an exercise of practical reasoning that is compatible with rights and gender equality. It is unclear how Foot could use the framework of natural normativity to rule this view out.[38] After all, such a person could point out how Sharia Law is crucial to their practice and way of life, and that denial of faith in Sharia is a defect. We could, of course, appeal to intuitive cases or reflection on our own society and surroundings, but then this threatens either to trap us in relativism or undermine the naturalistic project which she set out to defend.

Another Neo-Aristotelian view that might seem to fare better is Rosalind Hursthouse's. Hursthouse takes up largely the same framework as that of Philippa Foot, but has some elements that may seem to address some of the above issues. Hursthouse is quite sensitive to the issue of objectivity in her work *On Virtue Ethics*. She acknowledges that a view of virtues must be given "some rational justification" beyond merely re-expressing the views we already hold.[39] Hursthouse's approach is in some respects richer, by involving a framework of ends and aspects according to which all organisms can be evaluated.

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[37] To make this example as uncontroversial as possible, let us consider Sharia Law as practiced by Islamic State, as an example of an evil application of practical reasoning.

[38] If the answer to this is given in terms of some principles understood independently of the virtues, then it is these principles that are relevant and not the virtues themselves that are relevant. In that case, not only would this constitute a departure from the virtue-ethical project, but we would need an account of those principles and why they are to be used as a standard. I think this is the precise nature of Christine Korsgaard's criticism of Foot in 'Constitutivism and the Virtues', pg. 26. Korsgaard does not face this problem because on her view a life based around Sharia Law would not be compatible with a life in accordance with the categorical imperative, which is necessary for human beings to self-constitute themselves.

[39] *On Virtue Ethics*, 170.

First, in discussing non-human organisms, Hursthouse expands and clarifies the Foot view by noting that natural goodness and defect of plants and other non-conscious organisms is to be evaluated not merely by reference to their characteristic activities, but their characteristic operations and reactions as they pertain to surviving and promoting the continuance of their species.[40] With animals, a third element of evaluation is introduced, namely action in promotion of survival and species-continuation is added as a measurement of goodness and defect, for instance chasing prey, eating, sleeping, and so on. In addition, animals with consciousness are to be evaluated according to their experience and pursuit of characteristic freedom from pain and pleasure, and in the more advanced animals, emotions and desires (e.g., a monkey's characteristic fear of jaguars and enjoyment of playing). Finally, for social animals, good functioning of the social group (e.g., a wolf hunting with its pack) is included as a criterion. This leads to four possible aspects of evaluation and four goals by which they are to be measured: the aspects of operations/reactions, actions, and emotions/desires in light of the ends of individual survival, continuation of the species, characteristic pleasure and freedom from pain, and good functioning of the social group.[41] She then points out, quite rightly, that as human beings are a species of rational, social animals, and therefore have a "particular biological makeup and a natural life cycle," then we "would expect the structure of our ethical evaluations of ourselves to resemble that of a sophisticated social animal with some differences necessi-

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[40] Ibid., 172.

[41] Ibid., 174.

tated by our being not only social but rational."[42] And indeed, she then affirms just this point:

> To be a good human being is to be well endowed with respect to the aspects listed; to possess the human virtues is to be thus well endowed. The human virtues make their possessor good qua human being, one who is as ordinarily well fitted as a human being can he in not merely physical respects to live well, to flourish-in a characteristically human way.[43]

This comes indeed exceedingly close to the view I will defend in the first chapter of this dissertation (though I disagree about the ends according to which she evaluates human beings). Moreover, Hursthouse is sensitive to the possible problems that can arise from trying to identify characteristic aspects of human life and extrapolating norms for action from these, not just because human activities are so diverse and wide-ranging, but because it is difficult to see what the significance of our unique characteristic traits imply (e.g., the fact that we use language).[44] She argues that the only relevant "characteristic way of going on" for human beings is the "rational way…any way that we can rightly see as good, as something we have reason to do."[45]

So at some level it may appear that Hursthouse offers an objective grounding for understanding the virtues in human nature, that is amenable to proof and validation by reference to biological facts. According to such an interpretation, one could measure a puta-

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42 *Ibid*., 178.

43 *Ibid*., 180.

44 *Ibid*., 184.

45 *Ibid*.

tive virtue in light of the ends and aspects described above, in terms of a characteristic human form of those ends.

However, Hursthouse is not in fact providing an objective grounding of her views of virtues, (modeled on the objectivity of biological norms), since she fails to make the value of "our characteristic way of going on" fully intelligible, and in fact explicitly rejects the idea, despite appearances, that she is using this as an objective foundation for ethics in biological facts. Julia Annas has suggested that the best interpretation of this form of naturalism is that Hursthouse sees the four ends as setting a biological barrier or set of constraints within which practical reason must operate. For instance, it cannot be the case that a putative virtue requires us to do something that is psychologically impossible given our biological nature. But, if this is indeed what Hursthouse is doing, it is problematic, for this would merely be a non-rational or external constraint to the autonomy of practical reason, not one that actually determines the form or normative authority of it, and therefore gives up the entire project of naturalism.[46]

Hursthouse seems to be aware of these difficulties; at any rate, she concedes that "the pretensions of an Aristotelian naturalism are not, in any ordinary understanding of the terms, either 'scientific' or 'foundational.' It does not seek to establish its conclusions from a neutral point of view. Hence it does not expect to convince anyone whose ethical

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[46] See Annas, "Virtue ethics: What kind of naturalism?" 11–29. Ithaca: Cornell University Press. See Halbig, C. (2015). Ein Neustart der Ethik? Zur Kritik des aristotelischen Naturalismus. In M. Rothhaar & M. Hähnel (Eds.), Normativität des Lebens – Normativität der Vernunft? (pp. 175–197). Berlin: De Gruyter, for a similar criticism. Any plausible view of ethics has to account for the fact that we are biological organisms and therefore cannot demand that we act wholly against that aspect of our nature. What makes Aristotelian Naturalism distinctive, however, is that our biological nature is taken as a starting point or foundation for ethical reasoning.

outlook or perspective is largely different from the ethical outlook from within which the naturalistic conclusions are argued. "[47] So from the outset this seems to fail to address the problem of objectivity as I have laid it out above. For instances, she elaborates, "it is from within some ethical outlook that one considers whether, e.g., charity or temperance or impersonal benevolence is a virtue; those character traits cannot be given a neutral, scientific specification…" Ultimately, this means for her that there is no neutral ground or ultimate standard of validation for the idea that temperance is a virtue; which is to say, there is no way to objectively prove it as such.[48] Instead, one can merely point out that it coheres with other aspects of one's existing ethical outlook.[49] What role, then, do the four ends play in Hursthouse's theory at all?

Sascha Settegast has recently suggested another interpretation, in part based on later comments by Hursthouse.[50] On his interpretation, which strikes me as correct, Hursthouse argues that the "belief in the possibility of harmonizing the four ends repre-

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[47] *On Virtue Ethics*, 170.

[48] I realize that Hursthouse, McDowell, and others would claim that this is sufficient for "objectivity." And indeed it would be if objectivity merely required internal coherence in one's views. However, on the account of objectivity I am relying on, this is insufficient for objectivity, since not only it does not allow us to arrive at our ethical outlook from a fully critical standpoint and reevaluate core assumptions, it makes the normativity of ethics unintelligible.

[49] For the same reason, she has to distance herself from the idea that ethical agents adopt the virtues and virtuous action for the sake of (or as means to) achieving certain ends they hold, since, clearly, that would make the virtues have a objective base. Accordingly, she writes, "what are recognized as reasons for acting are the reasons people with the relevant character trait do, or would, give-X reasons, the range associated with the character trait in question-not the fact that the character trait in question sustains any of the four ends." For instance, virtues are merely understood to be ways in which one achieves the end of individual survival, this would serve as an objective basis for the virtues. This is in fact the view I defend in this chapter, inspired by the views of Ayn Rand.

[50] Hursthouse, R. (2012). Human nature and Aristotelian virtue ethics. In C. Sandis & M. J. Cain (Eds.), Human nature (Royal Institute of Philosophy supplement) (Vol. 70, pp. 169–188). Cambridge: Cambridge University Press.

sents a necessary possibility condition of ethical thought as such."[51] On this view, without this belief, the enterprise of ethical reflection is neither intelligible nor possible for us. This is why although we cannot empirically affirm our own *eudaimonia* and its content (including views about the virtues), we "in fact affirm it performatively whenever we participate in the practice of ethical reasoning and actually develop a practical self-interpretation, which means: inescapably all the time."[52] This gives her view what Settegast calls an "essentially Wittgensteinian character,"[53] in the sense that Hursthouse is actually giving a complex description of the logical grammar that governs the language game, which we refer to as ethical reasoning.For Hursthouse, the four ends have normative authority over us in the sense that they are constitutive of the form of practical reasoning, in the same way that for Kant the categorical imperative has normative authority owing to its being constitutive of practical reasoning.[54] Hursthouse in fact believes there is an analogous structure in scientific practice.[55] She writes, "The practice of the natural sciences, it might be said, has to be based on the non-scientifically validated assumption that nature is intelligible; if we suppose it is not, the whole practice collapses. And we know there is

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[51] Sascha Settegast, "Good Reasons and Natural Ends: Rosalind Hursthouse's Hermeneutical Naturalism," 291, in *Aristotelian Naturalism: A Research Companion*.

[52] *Ibid*.

[53] *Ibid*, 293.

[54] This is a view that is defended by Christine Korsgaard in *Self-Constitution: Agency, Identity, and Integrity*.

[55] Which would, presumably, make her a scientific anti-realist. This does, I admit, give her view at least coherence to a wider picture; however, it should be noted that scientific anti-realism faces serious problems (See Putnam 1975a, *Mathematics, Matter and Method*, Cambridge: Cambridge University Press), and, in any case, seems to suggest that the biological framework that makes Neo-Aristotelian naturalism unique is in fact illusory.

no refutation of scepticism about that assumption. But the practice is worth going in for, there is no practicable alternative native for us, so we have to take the assumption on board."[56] Just as scientific theorizing requires the unprovable assumption that nature is intelligible, ethical theorizing requires the unprovable assumption that *eudaimonia* (as the formal final end of our action) has a certain content and is achievable.

I do not have the space to fully elaborate on an objection to that view (or any version of a Kantian approach to morality that takes the nature of rational agency as such as a starting point for ethics). I am merely exploring this line of thought as a diagnosis of the problematical view of human function and foundation of ethics found in Neo-Aristotelian developments. What I wish to call attention to here is that this move amounts to turning *away* from human nature taken from a biological standpoint serving as a starting point and instead works from a slightly modified Kantian approach to ethics that takes as a starting point the structure of rational agency, which Neo-Aristotelian ethics was precisely (in Anscombe's seminal essay "Modern Moral Philosophy") designed to set itself apart from.[57] I shall argue that instead the biological foundations of normativity need to be reexamined, and that a scientific objectivity of natural norms can be established for human beings.

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[56] As Hursthouse is aware, this view only ultimately makes sense within a wider view of anti-foundationalism that extends beyond ethics, which is in fact McDowell's view from which she draws. According to McDowell's view, the incoherence and impossibility of ethics based on a foundation outside its own outlook is no special case. Rather, it's a deeper feature of all human knowledge.

[57] See Philipp Bruellmann, Nature and Self-Interpretation: John Hacker-Wright and Micah Lott in Martin Hähnel. *Aristotelian Naturalism: A Research Companion*: 8 (Historical-Analytical Studies on Nature, Mind and Action) (p. 382). Springer International Publishing. Kindle Edition, for further discussion of this point. See Anscombe's discussion of a "law" based ethics in that same essay (e.g., 6).

In sum, the views of both Foot and Hursthouse face a difficulty of objectivity that results directly from their approach to naturalism. We can see this as a dilemma, that results from their taking on the Aristotelian framework of good functioning as grounding merely what is characteristic of human activity and sees it as guided by the pursuit of intrinsically valuable activity (which, for Aristotle, was contemplation). If naturalism is to be taken seriously, and hold to the idea that humans ought to act in accordance with their characteristic function (as Aristotle held), the normativity or value of the view of the virtues and *eudaimonia* is unintelligible; since it is not clear why one could not rationally choose to live in a way that is not characteristic of the human life form (or doesn't fully conform to it).[58] On the other hand, if one distance themselves from naturalism, which Neo-Aristotelians seem to do to the extent they adopt the "Neurathian" framework from McDowell, the scientific objectivity of their view is threatened, since the view of human nature within ethical reflection is not a scientifically verifiable view or foundation, but rather a conception within an acquired ethical outlook, which itself cannot be brought under rational criticism from outside it. One can then appeal to a Kantian form of objectivity, of course, in locating the norms of virtue and flourishing in the very structure of rational agency itself (or in the very structure of the language game in which we inescapably partake), as both McDowell and Hursthouse seem willing to do. However, this is to give

[58] This is the criticism from John McDowell himself, of Foot's early work, that I shall explain in the first part of Chapter I.

up on the Neo-Aristotelian project of grounding ethics in our nature as a certain kind of organism.

The objectivity problem has its roots in the Aristotelian assumption sketched above that human function is centered around the pursuit of some intrinsically valuable activity.[59] The perceived tension between, on the one hand, reducing morality to merely a concern with biological survival, and, on the other hand, understanding humans as naturally teleologically "constructed" too aim at virtue leads to an instability in Neo-Aristotelian approaches. Ethics contingently serving the end of biological survival is generally considered a non-starter[60]; and yet, since it is not plausible from a scientific perspective that human beings are naturally teleologically constructed to pursue the intrinsically valuable activity which counts as virtue (or indeed any such variant of it), Neo-Aristotelian views are driven to ultimately distance themselves from the naturalist foundation with which they started.[61] Facts about biological functioning that figure in the account of

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[59] As Gavin Lawrence puts it, Aristotles' "intrinsicalism" leads him to "an unconvincing view of the ideal, the optimal, human life as one that is both concretely monomanic and also invariant between individuals: a life for all with as much of the single best activity in it as ever possible." (In *Aristotelian Naturalism*, 26). I will discuss this view further in Chapter III.

[60] See Joseph Millum, "Natural Goodness and Natural Evil" in Ratio (new series) XIX 2 June 2006 on this issue. See also Hooker, Brad, "The Collapse of Virtue Ethics," *Utilitas*, 14, 1 (2002). Also very illustrative of this aspect of the literature is the objection in Scott Woodcock Philippa Foot's "Virtue Ethics Has an Achilles' Heel" and the reply by Jessy Jordan in "Philippa Foot's So-called Achilles' Heel: On the Distinctiveness of Her Grammatical Naturalism" *American Catholic Philosophical Quarterly* 2017, Volume: 91, Issue: 2, 251-271.

[61] Part of the backdrop of this failure, at least from some contemporary perspectives, is an attachment to a preexisting framework of virtues and the belief that our ethical theorizing may not revise such a framework (or at least certain components of it). See, e.g., McDowell, when he explains that his distancing from first nature allows him to accomdate the idea that virtue requires self-sacrifice (*Mind, Value, Reality* 191), or Hursthouse's view that the project of naturalism would have to be given up if it couldn't accommodate our view of the virtues (*On Virtue Ethics*, 382).

human nature for ethics are not, in the end, truly scientifically validated, but rather are only different ethical judgments that figure in a coherentist scheme of ethical reasoning. In turn, this Neurathian structure is guided towards, following Aristotle's basic assumptions of practical reasoning, that which is regarded as intrinsically valuable (virtuous activity). Thus, we see the connection between the objectivity problem and the assumption or view that productive activity is not (or at least not obviously not) a central aspect of virtuous activity, qua activity whose purpose is necessarily to create objects beyond itself. This is an opportunity, then, to meet two demands at one stroke: if human function can be shown to have its basis in the same scientific objectivity that grounds non-human function (in the maintenance of organismic activity), and this can ground ethics, then creative or productive activity can be understood as the central expression of human self-sustenance. This is the ambition of this project.

I. Functions as Elements of a *Bios*

Neo-Aristotelian ethical naturalism needs a new examination of its biological foundation[1] —a defense that both preserves it as a unique approach to ethical theory and illustrates how the objectivity of moral standards may be secured. To do this successfully, we must return to Aristotle's basic insight — that understanding functions in living things is the key to understanding the norms that govern them (both in form and content). In so doing, we can locate a foundation for ethical reasoning in non-ethical scientific facts. This foundation will allow us to achieve a scientific knowledge of ethics — a knowledge in terms of fundamental principles and causes.[2] To fully vindicate this view, however, requires integration with contemporary philosophy of biology — in particular, with an account of function that shows how teleology and normativity may be scientifically preserved. This I accomplish with my *Bios* view, taking as inspiration the organizational approach to functions that has arisen in recent years. Thus I argue that Aristotle's insight, far from an outdated approach to understanding organisms and the norms governing them, is actually based in an indispensable perspective in biology.

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[1] Here I mean "foundation" in the broad sense that in some form the Neo-Aristotelian ethics with which I am engaging seek to establish a deep structural similarity or relationship between natural normativity and ethical normativity. However, not all Neo-Aristotelian views will agree that ethics is based on a foundation of biological facts in the way I am suggesting.

[2] In this sense, I aim to provide a scientific foundation for ethics in just the same way Aristotle seeks to provide a foundation in fundamental principles and causes to achieve *epistēmē* in any given domain. See Gregory Salmieri, "Episteme, Demonstration, and Explanation: A Fresh Look at Aristotle's Posterior Analytics," 2014.

Why begin with an examination of functions? The promise of an examination of function is that in understanding them we can understand how goodness/defect, values/disvalue, flourishing/suffering[3] arise in nature; in tracing the source of those concepts, I will have demonstrated their objective foundation in nature.[4] These will provide an objective foundation in the sense that, they provide a standard by which we can properly address the fundamental questions of ethical reasoning (which enables discrimination and demarcation among competing ethical standards), and consequently enable and justify the eudaimonistic framework of reasoning, which will be the subject of the next chapter.

What do I mean by function? In basic terms, functional entities are entities aim at a certain goal or outcome, and typically have parts or components that contribute to the achievement of that goal.[5] For Aristotle, this is key to understanding what it means for an organism to be a good instance of its kind.We can understand what it is for a birch tree to live well based on what it needs to do to keep being a birch tree — its particular method of growth, self-nourishment, and reproduction. A flourishing birch tree is one that is successful in executing these functional capacities. The method of grounding normativity I will pursue ultimately shows that objective normative standards are grounded in living

[3] Here I mean suffering in the broad sense that includes non-conscious processes of decline or stagnation that lead to death.

[4] This is, then, to clarify a continuity with existing discussions, to provide an answer to Gary Watson's question, of whether ethical naturalism can establish that being a gangster is incompatible with being a good human being. Gary Watson, "On the Primacy of Character," 1991.

[5] This I take to be an initial ostensive definition, which I will improve upon later.

things sustaining a certain way of life or *bios* appropriate to their nature.[6] This, in turn, means that what it is for a human being to live well is to act in accordance with the requirements of the human *bios*. Thus, for instance, on this view, it can be shown that the virtue of honesty is a requirement for human life, and this is what objectively grounds it as a virtue.[7]

I will first explain in brief terms how I understand Aristotle's function argument and its significance. I argue that whether or not it is viable in providing a foundation for ethics is dependent on how we understand functional explanation of the biological nature of organisms. If it turns out, for instance, that the concept of function is not needed in biology, or is incoherent, or only depends upon a subjective perspective, or is irrelevant to the phenomenon of human valuing, I take it that functioning cannot serve as an objective foundation of ethics.[8] Therefore, I turn explicitly to the philosophy of biology to examine the nature of functional explanation and how it makes sense only within the context of a way of life or *bios,* and that this is a crucial perspective needed for biological science. This is a modified version of a view that has gained some traction in the literature, known

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[6] I use normative standards here, rather than ethical standards, since I think the *Bios* importantly grounds epistemic standards as well. Ultimately, I understand ethical standards as a subset of epistemic standards, governing cognition in the realm of action and values. However, this view is not necessary for my argument's success.

[7] A full reduction of all the cardinal virtues and their objective demonstration would take me too far afield, however, for an excellent discussion of honesty that coheres significantly with my approach see Tara Smith, "The Metaphysical Case for Honesty."

[8] Such objections to Aristotle's function strategy have indeed been expressed by various philosophers. See for instance Odenbaugh, "Nothing in ethics makes sense except in the light of evolution? Natural Goodness, Normativity, and Naturalism." or Millgram, E. (2009). "Life and Action," Woodcock, S, "Philippa Foot's Virtue Ethics Has an Achilles' Heel."

as the organizational view of functions. On the *Bios* view, functions are coordinated elements of a *bios* that work together to create and sustain it. Thus, if the human rational capacity is a central functional capacity of human beings, living well as a human being will involve, among other things, excellent exercise of the human rational capacity in sustaining the human *bios*. In other words, excellent human functioning is an excellent maintenance of the human *bios*. This offers a pathway for an objective foundation for ethical reasoning in observations on human nature, a foundation I will make use of in subsequent chapters.

I. Aristotle's Function Argument

To begin, we need to understand, at least in outline, the structure and purpose of Aristotle's Function Argument. In the first book of the *Nicomachean Ethics*, Aristotle famously sets out, as part of his investigation into the highest human good, to demonstrate that human beings have a unique or characteristic function (*ergon*). This function, in turn, determines what it is for a human being to act and live well, which then serves as the foundation for ethics, since acting well (in the pursuit of happiness) is the primary concern of ethics.[9]

For Aristotle, function is intimately tied to *form*: the function of a thing, such as the eye for eyesight, or a trunk for supporting branches, is determined by the way its matter is suited to a certain purpose.[10] For an organism, this function is carrying out the activ-

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[9] *NE* II.2 1103b25-30.

[10] *Metaphysics* 7.10 1035b17

ities appropriate to its way or form of living. This, in turn, can be understood as the function of the whole organism, a function that integrates their more specific or narrow functions. This is why Aristotle lays out the different forms of life and their proper function in his argument: he aims to show that *all* living things have a function and human beings are no different, except that our function involves a unique capacity not shared by other organisms. So, for plants, their function is vegetative or nutritive—fundamentally their lives are based exclusively around gathering nutrition from the ground or air, reacting to external stimuli, and engaging in growth and (relatively) simplistic forms of reproduction. For non-human animals, their function involves perception, locomotion, sensation, and so on: hunting, evading predators, finding or making nests or hiding places, seeking water, etc. For human beings, their function involves reason: this is how humans carry out their distinctive form of life. Aristotle describes this function as "activity or actions of the soul implying a rational principle."[11] These activities turn out to be the virtues (excellences), but are not specified from within the Function Argument itself. From the perspective of function as form, the Function Argument does not attempt, as Gavin Lawrence puts it, "to itself justify any material specification of the excellences, [since] if it were to be read that way, the specification would have to have been established before the argument begins."[12] Thus, the Function Argument lays a foundation upon which the

[11] *NE* 1.7 1098a5-15.

[12] Gavin Lawrence, "The Function of the Function Argument,:" 449.

virtues will be based, but does not imply a particular material specification of the virtues by itself.[13]

These activities and actions - the ones in accordance with rational principle - are what make up a human life; and when and to the extent they are in accordance with reason, it is a well-lived life. This is in contrast to the life of an animal, which is in accordance with perception and sensation. But a human life is not merely a more complex version of an animal life. Christine Korsgaard makes the concise observation that "a human lives, or has a *life*, in a sense in which a non-human animal does not…A human being decides such things as how to earn her living, how to spend her afternoons, who to have for friends and how to treat them, which fields of knowledge, arts, causes, sports, and other activities she will pursue, and in general, how she will live and what she will live for."[14] Human life is based on rational choice (*prohairesis*); this is indeed why happiness (*eudaimonia*) cannot be had by other creatures, since it is dependent upon choice.[15] Human function understood as rational activity implies two further points: the highest human good is of the soul, rather than the body, and the highest good is an activity rather than a state. This indeed is what licenses Aristotle to reject certain conceptions of what the virtues or *eudaimonia* could be, as I will discuss in the next chapter.[16]

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[13] Others taking the formal reading of the function argument include Ackrill 1973, 20, Cooper 1975, 146, McDowell 1980, Broadie, *Ethics with Aristotle*, 1993, 37-9. Obviously, this does nevertheless create significant constraints on the shape that the virtues will take: for instance, there cannot be virtues (such as, e.g., "faith") that require the abandonment or suppression of our rationality.

[14] Christine Korsgaard, "Aristotle's Function Argument," 143.

[15] *NE* 1.9 1099b33ff; *EE* 2.7 1217a25ff.

[16] Such as, for instance, his rejection of happiness being wealth, power, or health. *NE* I.4 1095a22-5.

Having presented the human good in outline,[17] Aristotle proceeds to show throughout the *Ethics* what acting in accordance with a rational principle ultimately implies: in short, acting from the various virtues of character he identifies: justice, temperance, courage, generosity, and so on. All of these character traits are states that enable their possessors to consistently and harmoniously act for the sake of the noble and the fine and avoid actions or temptations that would make them base or ignoble. For Aristotle, then, acting in accordance with these virtues, together with practical wisdom (*phronesis*) constitute excellence of human functioning and therefore, when accompanied by the appropriate external goods, living well.[18]

In my view, Aristotle is right to look to the nature of human functioning in order to determine the standards of good human action; and therefore the basis of ethics. It is promising insofar as it suggests a way to make determinate what it means to be a good human being — which is precisely what ethics, as a guide for human choice and action, needs. This determinacy is important if we are to objectively adjudicate between competing conceptions of good lives, since different people will disagree and offer their own accounts. Indeed, much work in Neo-Aristotelian ethical thought concerns how to properly address this need.[19]

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[17] *NE* I.7 1098a20-22.

[18] *NE* II.2.1106a15-26.

[19] Philippa Foot, *Natural Goodness*, Rosalind Hurshouse, *On Virtue Ethics*, Martha Nussbaum, "Non-Relative Virtues: A Neo-Aristotelian Approach." We might distinguish here between adjudicating among competing moral theories (Utilitarianism, Humeanism, etc.) and competing conceptions of a good life; I am primarily concerned with the latter, though obviously vindicating an objective Neo-Aristotelian theory of ethics has implications for the former.

Aristotle lays out his account in the *Nicomachean Ethics* with a defense of what states of character are needed to live a life that is considered noble - a life of courage, generosity, temperance, and so on.[20] However, it is unclear in Aristotle's account whether he sees the Function Argument as part of a demonstration of his view of the virtues, or if it is rather part of a sketch of a life we already agree is noble, without an offer of proof. At times he clearly does think, as I suggested, that certain competing conceptions of *eudaimonia* (e.g., a life of honor-pursuit) are ruled out by the argument. On the other hand, he acknowledges in multiple places that ethics is inexact[21]; and ultimately, it is not entirely clear if we would have an objective method of adjudicating among *any* competing accounts of *eudaimonia* and the virtues, at least provided that one understood *eudaimonia* and virtue to be the product of rational activity.[22] Notice here that this problem extends to both a view of *eudaimonia* and an account of the virtues, since these must in the end be integrated. So, for instance, if one cannot objectively prove why courage is a virtue and stinginess is a vice, then one cannot show why a life of cowardly activity and stinginess is not a good life.

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[20] *NE* I.4 1095b4-6, I.3 1985a2-11. This he directs explicitly to an audience that has been brought up with his view of what is noble and fine

[21] *NE* 1094b15-27, 1112b9,

[22] For further discussion, see Georgios Anagnostopoulos, *Aristotle on the Goals and Exactness of Ethics*. Anagnostopolous argues that all propositions related to ethics "fluctuate" because one cannot pinpoint precise principles that hold true across circumstances (207-8). However, as Anagnostopolous himself notes, this is difficult to square with Aristotle's remarks elsewhere that certain activities are always bad, regardless of the context, such as murder or adultery (1107a10). For a recent view that challenges the mainstream view that Aristotle does not aim at demonstration in ethics, see Joseph Karbowski, *Aristotle's Method in Ethics: Philosophy in Practice*.

If this is right, it may not be a failure of Aristotle's account, but a feature that he explicitly embraces (and that his account of the human function allows), since ultimately, as some commentators have argued, ethics is uncodifiable and can only be grasped from within its practice, or from the perspective of an already (or mostly) virtuous agent.[23] Indeed, Aristotle famously remarks in several places that the virtuous person is the standard of virtuous conduct;[24] though we should not, in Sarah Broadie's words, understand that necessarily to mean that "ethical truth [is] what the *phronimos* reliably apprehends," but rather that the virtuous agent is a standard insofar as she reliably apprehends the truth. Alternately, Martha Nussbaum has argued that Aristotle's virtues should be understood from the perspective that they demarcate what human flourishing requires in different "spheres of choice,"[25] but she acknowledges that the standards used in evaluations of accounts of *eudaimonia* must come from "inside human life," where we see how the different parts of the view hang together. Ultimately, she argues, one cannot provide "an account of virtue which can be straightforwardly and unproblematically based" in a "single language-neutral bedrock."[26] If this is true, however, how can we be certain that our conception of *eudaimonia* is objectively correct? Perhaps we cannot: this problem is especially apparent if we agree, as Gavin Lawrence argued, that the Function Argument itself

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[23] See John McDowell, *Mind, Value, Reality*, 1998, see also Rosalind Hursthouse, *On Virtue Ethics* and Bridget Clarke, "Virtue and Disagreement," in *Ethical Theory and Moral Practice* Vol. 13, No. 3 273-291.

[24] *NE* 11130a3103, *NE* 1144a33-35, 1166a13.

[25] Martha Nussbaum, "Non-Relative Virtues: An Aristotelian Approach," 11.

[26] Ibid., 24.

does not justify any material specification of the virtues (and therefore, *eudaimonia*). In such a case, we would have identified no objective standard after all.[27]

Aristotle rightly points out that "we should start from things knowable to us"[28] - we must have some starting point in basic observations and common-sense ideas, including some ideas about what the virtues might be - yet equally, we must also have some method of objective determination of what counts as excellent human functioning and what does not. If we can only proceed from an existing view of what is noble (such as his ancient Athenian conception), without being able to critically examine that view and determine its foundation in facts about our nature, our account will remain necessarily incomplete. As an analogy, consider our conception of health. We must, in forming an account of health, begin from some starting points of knowledge: injury is bad, some amount of food is good but not too much, exercise is generally good, etc. However, we cannot claim to have an objective standard for what counts as "healthy" if we have no way to re-examine these views in light of more fundamental facts about our nature. It may turn out that some of our previously held beliefs were incorrect; e.g., that cigarettes are healthy because they are calming, or that smoking them is an expression of grace and sophistication. In such a case, when we see that cigarette smoking damages the lungs, we objectively identify it as unhealthy (obviously, assuming a certain context of particulars)

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[27] Whether Aristotle takes himself to have done so appears controversial, and is beyond the scope of this work; however, I am merely indicating here what is at stake, and the way in which I endeavor to add clarity and power to an approach drawing on Aristotle's perspective.

[28] *NE* I.4 1095b1-5. See also *Politics* I.1323a27-9.

since it evidently works to destroy or diminish key bodily capacities. Similarly, I shall argue that we can objectively identify courage as a virtue by locating an objective basis for it in more basic facts about our nature, that show why courage is good for human life (or is consistent with the human function), and cowardice is not. This basis is objective in that does not appeal only to a previously agreed upon conception of the noble (e.g., that facing death for the defense of the city is a noble thing to do), nor is it only accessible from within an opaque viewpoint (e.g., the virtuous agent). This perspective, and the framework from which I operate, is instead foundationalist in the sense that the proper conception of *eudaimonia* and the virtues rests upon, and is evaluated against, a conception of human nature informed by biological facts. This conception of human nature, or more accurately a conception of the human way of life, serves as an objective standard of ethics; or so I will argue.

I have suggested that Aristotle suggests a promising way to understand the foundation of human goodness in function. It is promising because it suggests a way to ground human goodness in our capacities, and integrates with how we understand goodness and defect in other organisms as well. However, in interpreting the human function as it pertains to ethical action, Aristotle seems to rely upon a preconceived notion of nobility and fineness — one that we in our contemporary context may disagree with, and that at any rate does not clearly utilize an objective standard by which it can be evaluated.

To secure objectivity in ethics, we need not abandon Aristotle's assumptions about function; function is crucial, but we need to show that in examining biological functions

we *can* in fact locate a foundation for ethical norms which does *not* presuppose an account of the noble or the content of virtue, and yet give us a sufficiently determinate view of human flourishing. From that perspective, my account of human function *can* justify "a material specification of the virtues."

On the view I will develop, an investigation into the nature of biological functioning in living things in general, and human beings in particular, shows that human functional capacities, including the distinctively human capacity to reason, sustain the human way of life or *bios*. So, far from involving ethical presuppositions, excellent human functioning - *eudaimonia* - is firmly rooted in the biological requirements of human life. In this way, we in fact retain Aristotle's fundamental insight: that to inquire into what it is for something to do well (or act well) is to inquire into what it is for it to perform its function well. Thus, the view developed here expands upon Aristotle's project rather than discarding or superseding it.[29] And indeed, in this respective, I am following Aristotle's own advice at the end of the discussion of human function in Book I, where he states:

> So much for our outline sketch for the good. For it looks as if we have to draw an outline first, and fill it in later. It would seem to be open to anyone to take things further and to articulate the good parts of the sketch. And time is a good discoverer or ally in such things. That's how the sciences have progressed as well: it is open to anyone to supply what is lacking.[30]

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[29] Moreover, while I do present an alternative to an anti-foundationalist approach to ethics like McDowell's, I believe my later conclusions in subsequent chapters could quite easily be incorporated into an anti-foundationalist approach. In this respect, those in disagreement with my foundationalism may nevertheless find interesting common ground with me concerning my views on creativity and production (which will be explained later on).

[30] *NE* 1098a20-26.

With these preliminary statements in hand, I shall turn away now from Aristotle (I will return to his views in Chapter III) and to the nature of functional explanation - in order to provide an account of functional explanation that is based upon contemporary biology and recent philosophical literature.

II. Functional Explanation

In certain scientific domains, particularly in the life sciences (to which my attention will be primarily directed), explanations of aspects of organisms (structures, behaviors, traits) take the form of a functional explanation.[31] These sorts of explanation stand in contrast to mechanistic explanation, which recount a sequence of events by which the traits or structures came to be in accordance with the laws governing the behaviors of their antecedents and constituents. A large philosophical literature exists concerning functional explanations, particularly focusing on the objects of functional explanation and what makes functional explanations unique.[32]

My goal here is to outline an account of functional explanation that is distinctive among other categories of biological explanation, and grounds normative standards for living organisms - ultimately, for human beings. This account relies crucially on the con-

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[31] Psychology is another notable field where functional explanations, such as explanations of emotions in terms of their function, or explanations of different parts of the visual system in terms of their function and contribution to eyesight are of central importance.

[32] Peter McLaughlin, *What Functions Explain*, does an excellent job laying out the general terrain of this literature.

cept of a *bios*[33]: an integration of the specific activities an organism needs to engage in to maintain itself across its lifespan. This *bios* view of function is somewhat distinct from any existing contemporary theory of functions; however, it draws importantly on an account of functions known as the *organizational* view. In developing my view, I shall argue that it has a distinct advantage over the existing organizational view in that it makes better sense of organismic activity in a way that allows us to grasp how functional activities are coordinated and unified. To show this, I will discuss developmental processes and reproductive activities of organisms and explain why the *bios* view can better explain these activities.

In what follows, I will take these biological applications of functional explanation as paradigmatic of functional explanation more broadly.[34] Functional explanation normally arises as an answer to two distinct questions: 1) Why is a trait/structure/behavior present? and/or 2) How does a trait/structure/behavior operate in its system? These are central questions in understanding organisms , and a concept of 'function' is crucial to the explanations they seek. Moreover, function ascription allows biologists to define *normative* standards for the organisms that possess them, since they reveal information about what a part or trait *should* do, or how an organism *succeeds* or *fails* in its functioning, given its nature.

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[33] The term "*bios*" is an Aristotelian concept that closely captures my view of functions. While my paper is not intended to rely primarily on a certain interpretation of Aristotle, I use Jim Lennox's work on *bios*, especially as found in "Bios and Explanatory Unity in Aristotle's Biology."

[34] Rather than, say, starting from artifactual functions as paradigmatic, and thereby setting aside such issues as functional explanation in philosophy of mind and psychology.

Ultimately, the view of functions as elements of a *bios* allows us to see human flourishing as a product of the functioning of different biological components together into a unified whole. Thus, the objectivity of a conception of human flourishing is secured via its foundation in biological facts.

A. Functions in Biology

Biologists use functional explanations across a variety of contexts in explaining the activities and traits of living things. For instance, explaining the presence of bark in many trees, biologists may say that "the function of the bark is to protect the tree from disease and injury."[35] In explaining the operation of the flagellum of an amoeba, they may say that "the primary role of the flagellum is locomotion." And so on. Equally clear is the fact that many statements would not succeed as functional explanations of biological phenomena on the grounds that they fail to capture the function of that phenomena and instead refer to a *mere* (side) effect of that phenomena: "because it makes a beating sound" fails to give the explanation sought by asking "why is the heart there?" Other statements would not succeed as explanations (or would not succeed as the same kind of explanation) because they offer an efficient causal explanation instead of a functional explanation: the heart is there because of differentiation of mesodermal germ-layer cells in the embryo that differentiated during early embryogenesis. Alternatively, an evolutionary

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[35] Obviously, more needs to be said here to show in what sense this explains the *presence* of the bark; this will be made clearer as I explore the etiological and organizational approaches to functional explanation.

explanation could be offered: "the heart is there because it was selected for over open circulatory systems in ancient fish and offered subsequent advantages to fitness."[36]

The main philosophical perspectives on functional explanation in the current literature agree that there is *some* distinction to be made between functional explanations and other kinds of scientific explanations, and that any plausible analysis of functions should make this distinction clear. What is distinctive of functional ascriptions and explanations[37], on my view, is that they concern the parts, activities, and traits of self-maintaining, organizationally differentiated systems; systems that have internalized goals, requiring specific processes to take place; and that normative standards are applicable to the system as a whole and its parts, activities, and traits in relation to the system. This is what has been called the Organizational View of functions, which I will explain in further detail in subsequent sections.[38] I will also in those sections explain why I think the concept of a *bios* is needed to make sense of this view of functions.

The goal of the philosophical literature on functions is in part to provide the framework for the concepts of 'function' and 'functional explanation' such that this concept serves important and needed theoretical roles in both scientific and philosophical inquiry. One of the roles served by the concept of a 'function' is that it grounds *normativ-*

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[36] On some views, such as the "selected-effect" view of functions (e.g., Millikan 1984), all functional traits are to be understood and explained via selection (and consequently through the lens of evolutionary biology).

[37] I.e., what separates them from other kinds of explanations, such as efficient causal explanations.

[38] The Organizational View seems to have various origins, perhaps beginning with Mossio M, Saborido C, Moreno A (2009) "An Organizational Account of Biological Functions," but has gained much widespread attention in the last few years. For a discussion of the main contentions across the view, see Garson J (2016), *A Critical Overview of Biological Functions*.

ity in nature: understanding the function of the heart allows us to understand the way in which all such organs contribute to the well-being of the systems in which they exist, as well as determining in what ways hearts can be defective. Functions help ground standards that allow us to "measure" the success or failure and flourishing or languishing of the systems in which they exist.[39] On my view, in the currently existing literature, the Organizational View of functions is best suited explain this grounding.

In order to get to the Organizational View of functions, however, and suggest the ways in which this grounds natural norms, the issue of how functional explanations are to be distinguished from other kinds of explanations, and how their subject matter is to be understood, must first be clarified.

B. What are Functional Explanations?

First, what exactly is the scope of the application of functional ascriptions in biology? Clearly, traits and structures are treated by biologists as functional. For example, mitochondria in the cells of eukaryotes function to produce ATP, which facilitate intracellular energy transfers. Lymph nodes in the animals that have them function to fight infections and eliminate harmful foreign agents in the bloodstream. The patterns of color on a male peacock's feathers serve to attract the attention of a potential mate. Activities and behavior are also explained functionally in biology. For example, *caching* behavior - the hoarding of food, serves the function of improving future nutritional security, such as

[39] For instance, a central or essential aspect of functions is grounding the idea of *benefit* and *well-being*.

when the tayra (a weasel found in Central America) stockpiles green plantains to consume them later when ripe. Nesting behavior in birds serves to protect and raise young.

Importantly, I think a distinction between structures and traits on the one hand, and activities or behavior on the other hand, should not be over-emphasized in this context. This is because most, if not all structures and traits of organisms can be understood or viewed from the perspective of physiology *as well as* “statically” from the perspective of anatomy and morphology. So, for example, the ATP production of mitochondria can be viewed as part of the respiration process. Nesting behavior in animals can be viewed instead from the perspective of an increase in estradiol, a hormone that grounds the drive in animals to build nests. The beak of a hawk can be viewed from an anatomical perspective as a certain kind of structure well-suited for cutting into flesh, or as an activity of tearing into flesh of prey as part of the hawk’s metabolism of energy. The specific context of explanation determines whether a functional explanation in biology will focus on behavior instead of structures or vis-versa. What is helpful about understanding the activities of organisms as functional is that it makes better sense of functional analysis of organisms interacting with their environment.

Let us consider two examples to make this point clearer. First, the symbiosis between the clownfish and sea anemones. Clownfish have evolved to avoid trying to eat the nutrient-rich anemone tentacles, and anemones have evolved not to strike clownfish with their nematocyst stingers on the ends of their tentacles. The benefit to the clownfish of this relationship is that the anemone serves as a protective shelter from predators, while

the anemone benefits via the clownfish scaring off potential predators of the anemone, as well increasing the oxygen consumption of the anemone by fanning its tentacles and improving water flow. A functional explanation of this symbiosis cannot be made purely in terms of structures; for in general the function of anemone tentacles is to ward off fish from approaching, and the function of the clownfish's tail cannot be understood as fanning except insofar as that includes the activity of improving oxygen flow to the anemone.[40] Second, consider morning glory, a vine, twining around a ladder. This twining behavior has two functions: providing support for growth with a minimal investment of energy (e.g. compared to developing a stout trunk or branches), and in certain cases acquiring as much sunlight as possible where the soil receives relatively low levels of light. This twining cannot be fully understood as a matter of the internal structures of the morning glory, because the environmental stimulus (the shape of the ladder and the distribution of light in the area) are inputs to the twining behavior itself.[41]

Another way in which we can understand the scope of functional explanation is by looking to micro and macro contexts. At what microscopic level do functional explanations cease to be relevant and legitimate? Does DNA have a function? Yes, clearly: to transmit and preserve the genetic "instructions" for growth and development of the organism. Perhaps the most basic unit of functional explanation in biology would be biomolecules, such as proteins, with all their diverse functions in biochemical reactions. In

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[40] "Clownfish Supplement Anemone Oxygen by Fanning," Kathryn Knight, *Journal of Experimental Biology* 2013 216.

[41] *Plant Tropisms*, ed. Simon Gilroy, Patrick Masson, 94.

the other direction, we may ask whether groups of organisms can count as functional, or whether traits or behavior are functional for groups of organisms. As to the first question, I think upon examination of the best ways of conceptualizing ‘function,’ it turns out that rarely will groups of organisms count as functional.[42] Generally, contemporary philosophers and biologists have resisted ascribing ‘functions’ to whole organisms — perhaps because this is too reminiscent of an intelligent design view of nature, but also because taking organisms as the limit ends a potential regress.[43] This is, incidentally, one spefific respect in which philosophers have tended to view Aristotle's Function Argument with suspicion.[44] In any case, here I will generally take *organisms* as the limit of proper subjects of functional ascriptions.[45]

C. The Questions that Functional Explanations Answer

If functional explanations are to count as a unique form of explanation in biology, the specific questions they address must be determined. A helpful tool for thinking about

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[42] There may be some exceptions, though: perhaps the group of worker bees in a bee hive should be understood as functional for the hive in just the same sense that my lungs are functional for my body. We can certainly understand groups as functional in a derivative sense that “group-activities” (e.g., a wolf's participation in hunting) are certainly functional, but I understand these as functional within the context of the individual organism. In general, most philosophers in the philosophy of biology take organisms as the limit case of functional ascription. See McLaughlin, *What Functions Explain*.

[43] While I am content to follow the literature on this point, it does not obviate the need for a “life-form” concept, comprising of a functional understanding of an organism's structures and activities understood as an integrated whole.

[44] It is also why I choose the term *Bios* rather than “function,” since it is helpful to have a different word to illustrate that we are discussing the phenomena of all the various functions of an organism being integrated together.

[45] This may be somewhat contentious, but it does not affect my argument very much if denied, as long as it is agreed that in paradigmatic and central cases organismic activities and traits are the subject of functional ascriptions. Therefore, even if we end with a view that human societies, for example, are functional in some sense broader than based in individual organismic activity, this would not be the starting point of an examination of human function but rather a supplement to it.

where functional explanations fit in is Nikolaas Tinbergen's "Four Questions."[46] Tinbergen intended his categories to be applicable primarily to ethology, anthropology, and behavioral ecology, but they have application in biology more broadly construed. Tinbergen distinguishes between the following four different kinds of explanation for a specific behavior or trait: ontogenic explanations (explanation in terms of physiological development of the particular individual in question), phylogenetic explanations (evolutionary explanations describing changes in a species over generations), mechanistic explanations (how specific structures work mechanically) and functional explanations.[47] It is important for biology to incorporate and recognize these different explanations/perspectives, as they each contribute a unique understanding to phenomena that can be integrated into a broader framework (insofar as they can be consistent). On my view, and as Tinberg's division suggests, functional explanations ought to be considered as distinct from mere mechanistic explanations *but also* from phylogenetic (evolutionary) explanations and ontogenetic explanations. What functional explanations uniquely offer is a grounding for natural norms governing the traits and activities of the system that has those functional traits and

[46] My understanding of these distinctions is based on the discussion in Scott A. MacDougall-Shackleton, "The Levels of Analysis Revisited." It should be noted that interestingly, Tinbergen held functions to be adaptation-explanations, a version of what McLaughlin calls "etiological" views of function. My use of his levels of analysis in exploring the requirements of an adequate theory of function need not accept his particular view on that issue, however. Evolutionary/adaptation explanations are certainly valid forms of explanations, but my view of functional explanation is not tied to evolution. Interestingly, Tinbergen viewed adaptations as tied to survival problems in the current environment, and in that sense his view is somewhat confused (from my perspective), since this is precisely a central criticism I would aim at the etiological view of functions. In this sense, then, I am operating within the spirit of Tinbergen's framework, but understanding the conceptual basis of 'function' somewhat differently.

[47] Hladký, V. & Havlíček, J. (2013). Was Tinbergen an Aristotelian? Comparison of Tinbergen's Four Whys and Aristotle's Four Causes. Human Ethology Bulletin, 28(4), 3-11.

activities, which in turn benefit the system. None of the other categories of explanation pertain to the well-being of the system in the right way (though obviously are important to other contexts): ontogenetic explanations focus exclusively on *how* traits emerge for a particular individual, mechanistic explanations *reduce* traits and structures to their basic parts, thereby not including the wider context, and evolutionary explanations focus not on individual systems but rather on patterns of changes across generations of individual systems.

To review, the central contention of this chapter will be to outline an account of functional explanation that is distinctive among other categories of biological explanation, and grounds normative standards for living organisms. This account relies crucially on the concept of a *bios*: an integration of the specific and definite way that an organism needs to survive and maintain itself across its lifespan. This *Bios* view cannot be reduced to any existing theory of functions; however, I will integrate it with current organizational views of functions in presenting the account. Two of the advantages of my account over current organizational views of function are that firstly, it makes better sense of developmental processes and reproductive activities of organisms, and secondly, the view unifies the functional traits of an organism in way crucial for biological explanation.

In light of these considerations, I shall formulate the two basic questions functional explanations seek to answer as the following: 1) Why is a trait/structure present?[48] and 2) How does a trait/structure/behavior operate in its system? Moreover, function as-

[48] This question will ultimately be formulated in terms of what benefit the trait or structure provides, to distinguish it from evolutionary and ontogenetic explanations.

criptions ground normative standards about those traits and structures. I will refer to several constraints on a successful theory of functional explanation and ascription:[49]

A. Provides ability to objectively distinguish between function and accident (or function and non-function)[50]

B. Avoids regress of function contribution by non-arbitrarily specifying a final end or containing system

C. Provides an account of *how* functions make contributions to their possessors (if they do so)

D. Provide a unique explanatory role for functions

All of these constraints are needed in at least some form in order to demonstrate that functions have an explanatory role to play in biology. If an account of function cannot distinguish between function and accident, or implies an infinite regress, then on

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[49] While I could not find this list in this precise form in the literature, there are aspects of both the early analyses of function and the subsequent development of those views that suggest something like this list is relied upon by philosophers writing on functions. For instance, both Hempel (1965) and Wright (1973) are explicit about distinguishing function from accident, McLaughlin (2000) shows in his survey of the extensive literature that a problem facing accounts of function is the threat of regress, e.g. the views of Millikan and Ruse (constraint B). Constraint C is crucial to both the strength and focus of backward-looking etiological theories (see Godfrey-Smith, 1994, Boorse 1977, Griffiths 1993) as well as the basis of central criticisms of dispositional theories of theories such as Cummins (1975) and Bigelow and Pargetter (1987), for instance those discussed by McLaughlin himself. I take it that constraint "D" is a prerequisite to the literature on functional explanation altogether, unless the goal is to eliminate functional explanation from philosophical discourse.

[50] I mean nothing more by "accident" here, than activities, traits, or effects that are explained in an efficient causal way, or a mechanistic way, rather than in a functional way. For instance, if it is agreed that the function of the human heart is to pump blood, then that must be distinguishable, from, say, some non-functional effects that the heart might have, such as making a thumping sound when it beats. I deliberately phrase this particular adequacy condition in such a way that it does not beg the question against any particular account of functions.

some level the account will be incoherent (either by not marking out a specific phenomena to be explained, or by implying a metaphysical impossibility). If the account purports to ground concepts of benefit, harm, health and defect, it must show how and in what sense functions contribute to their possessors, otherwise it is incomplete. Finally, the account must show functions have a unique explanatory role, because if it turns out that what functional explanation attempt to capture or explain is already explained by an existing but uncontroversial concept (such as capacity, or adaptation), then functional explanations should be discarded.[51]

My goal, then, will be to show that the *Bios* account of functions successfully meets these constraints and moreover constitutes an improvement upon organizational approaches to functioning currently existing in the literature.

III. The Organizational View

A recent trend in the literature on functional explanations aims to provide a way of understanding functional explanation that captures both the idea of function as a "role" and function as part of a feedback process. This approach, the Organizational View, has already been outlined by philosophers seeking to capture the insights from dispositional (role-based) approaches and etiological (feedback-based) approaches while avoiding their

[51] This especially true because of what Peter McLaughlin calls "the problem of teleology;" that is, the fact that attributing teleology to organisms in the history of biology has been highly controversial and viewed with suspicion. See *What Functions Explain*, 16-41.

pitfalls - which I cannot review here, but have been discussed extensively elsewhere.[52] According to dispositional views, causal roles in existing systems suffice to characterize those parts, features, or activities as having a function; in the literature, this is often considered a "causal-role function," because such functions are understood as part of a causal role they play within a particular system.[53] According to etiological approaches, by contrast, a function is grounded in its causal *history*: a trait has a function if the traits' presence is a result of its having performed its function in the (usually evolutionary) past.[54]

Organizational views focus instead on functions as contributing to a self-maintaining organization, which in turn reproduces its parts via a contained feedback mechanism. The explanatory payoff of this view is that functions can be understood separately from other kinds of explanations in biology, such as evolutionary explanations, but are also distinctive enough to be more than mere efficient causal explanation (i.e., explanation in terms of the general capacities of entities to act). Functions on this view paradigmatically (but not necessarily exclusively) apply in the first instance to living organisms and their parts and activities.

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[52] In particular, I am taking "An Organizational Account of Biological Functions," by Matteo Mosseo, Cristian Saborido, and Alvaro Bergareche as a paradigmatic representative of this approach. It is from this paper and others by these philosophers that I take the conceptual apparatus of a "self-maintaining system" and a "contained feedback mechanism." For pitfalls of etiological and dispositional views, see McLaughlin, *What Functions Explain*.

Peter Schwartz, "An Alternative to Conceptual Analysis in the Function Debate" 138. See as a paradigmatic case, [53] Cummins "Functional Analysis" 751.

[54] For a paradigmatic case of this view, see Ruth Millikan, "In Defense of Proper Functions," *Philosophy of Science* Vol. 56 No. 2 288-302.

However, as I will later show, the organizational view struggles in *unifying* all of the functional traits of organisms into their account - in particular, developmental and reproductive traits of organisms. The view I shall defend (hereafter the *Bios* View) understands organizations in a more unified sense, in a way that is suggested by the concept of a way of life or *bios*. This view is broadly Neo-Aristotelian in spirit, inspired work on Aristotle's biology by Jim Lennox and also inspired in part by views outlined by Michael Thompson and Philippa Foot. While a full-blown defense of this view here is not possible, I wish instead to explain the Organizational View of functions and how the *Bios* View improves upon it.[55]

A. The Organizational View

The organizational views (as presented by Matteo Mossio, et al, and separately by Gerhard Schlosser) depend fundamentally upon a certain conception of a self-reproducing complex system: in Mossio et. al's terms, as one that is self-maintaining, differentiated, and is characterized by organizational closure.[56] To fully understand the organizational view, each of these concepts must be explicated in turn.

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[55] One of my reasons for doing this, rather than merely outlining my positive view, is that I think the reductive view as I have encountered it in Mossio et. Al and Schlosser can offer insights to non-reductive views.

[56] Schlosser does not utilize the exact same conceptual framework that Mossio et al do, but I believe on the most fundamental issues relating to their view they are in agreement, so I will treat them together. For instance, Schlosser writes, “”I consider a system as being complex, if it does not pass through simple cycles of states, but instead can re-produce a certain state via different sequences of state transitions depending on the environmental conditions.” (312)

Self-maintenance according to Mossio et al is exhibited in structures in which a multitude of microscopic elements together form a macroscopic pattern in far-from-equilibrium (FFE) conditions. FFE is a type of dynamic equilibrium in which the state of a system is constantly changing due to an external energy input.[57] Equilibrium, in turn, exists when there is no tendency for the state of a system to change over time.[58] The "minimal" example Mossio et al use is that of a candle flame. In this phenomenon, microscopic combustion generates the macroscopic flame, which in turn maintains the heat required for combustion reactions to continue. This circular causal relation between the microscopic reactions and macroscopic pattern and structure creates organizational closure. The organizational closure of the candle flame makes the system self-maintaining since its own activity is necessary for its continued existence. According to Mossio, this organizational closure grounds teleology (i.e., goal-directness) and normativity (though not of course in the candle case specifically). This is because the activity of the system under organizational closure explains the existence of the processes involved in its own activity, since they are necessary for the system's existence, and simultaneously generate a normative standard by which the activities can be evaluated, since they must proceed in a specific way lest the system fall apart. Finally, dissipative systems also involve differentiation. Differentiation exists when a system generates distinct structures contributing in unique ways to the self-maintenance of the system (this is what the candle lacks, and

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[57] Thims, Libb. (2007).

[58] ibid.

therefore why the flame of the candle is not functional). Living organisms are clearly paradigmatic examples of this differentiation.[59] For example, mammals have various organs and organ systems that each make unique contributions to the system under organizational closure, such as by regulating and directing nutritional intake, maintaining bodily integrity, distributing oxygen, eliminating harmful foreign bacteria, and so on.[60]

In light of these concepts, the organizational view stipulates three conditions as jointly necessary and sufficient for the attribution of a function to a trait T in system S with closure C:

C1: T contributes to the maintenance of the organization O of S.

C2: T is produced and maintained under some constraints exerted by O.

C3: S is organizationally differentiated. [61]

The account is further refined by noting that "contribution to the maintenance" of the organization refers to a specific "regime" of self-maintenance, where any particular system (e.g., a cat) may have multiple regimes of self-maintenance.[62] For instance, a cat has eyes whose function is to detect food and prey visually in order to preserve the whole organism. If the cat goes blind due to some accident, the cat does not immediately die or stop

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[59] Living organisms will also be the sole focus of self-maintaining organizations for the purposes of this essay.

[60] Mossio 2009, 827.

[61] *Ibid*., 828.

[62] Schlosser has a similar qualification, as he describes functions as being necessary conditions for their reproduction "under certain circumstances" (318). For example, the heart is necessary to pump blood, which in turn reproduces the heart; but this is only true in most normal biological environments. Where an artificial pump is available, it serves as a functional equivalent, and the function of the heart remains the same but is no longer strictly necessary to pump blood.

being a cat, since it can survive using other means (smell, touch etc.). However, its specific regime of self-maintenance would have to change. Why is this relevant? Basically, this allows the account to describe a contribution as a *necessary* condition given a certain regime of self-maintenance. So functional traits are indispensable to an organization, but in the contextual sense that they are indispensable to a specific regime of self-maintenance. This implies that function traits may not be indispensable to the system across all regimes, since the system may have other regimes of self-maintenance that do not require that function (others, like the heart pumping blood, are required for any self-maintenance of cats). Mossio et al. want to maintain that certain functions should be understood as "primary" if they belong to a more basic (less complex) regime of self-maintenance and "secondary" if they belong to a more complex regime of self-maintenance. For instance, the primary function of the nose is to warm and humidify air, and secondarily to support eyeglasses, as part of a wider regime involving socio-technological interactions).

Above, I suggested the following theoretical requirements as conditions of adequacy for a theory of functions:

A. Provides ability to objectively distinguish between function and accident

B. Avoids regress of function contribution by non-arbitrarily specifying a final end or containing system

C. Provides an account of *how* functions make contributions to their possessors

D. Provide a unique explanatory role for functions

The organizational views seem initially promising vis-a-vis these conditions. First, they seek to provide adequate normative criteria for function attributions (as the dispositional views failed to do, since they fail to distinguish functions from mere efficient causal relations), meeting condition A. Secondly, they seek to show how function attributions refer to features of the systems they are involved in (as etiological views failed to accommodate) and make contributions to those systems, meeting conditions B and C. Finally, they claim to give functional explanations a distinct explanatory role in science, condition D.[63] I wish to argue that the organizational theories, while interesting and insightful, fall short of achieving these aims. I will end this paper by sketching my *Bios* View, which I think remedies these failures. Primarily, these failures stem from the organizational approach's inability to accommodate developmental and reproductive traits as functional.

I will focus first on reproductive traits of organisms, both because this is the source of common concerns (that others have expressed in the literature) with organizational views and because using a consistent example throughout will make my comments clearer.[64] Consider the reproductive behavior of Pacific Salmon (*Oncorhynchus*), where adult fish, having migrated to the ocean, swim upstream to the upper reaches of rivers

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[63] Schlosser stresses this point in terms of function-attributions providing empirically testable statements. (317)

[64] Other examples include functional traits that feature in early development of organisms and do not happen again, such as developments during embryonic stages of life.

where they spawn on gravel beds, during which time their bodies rapidly deteriorate and they die.

This behavior can be explained in evolutionary terms, which I will not go into here, and in simple causal (ontogenetic or proximate) terms, which I will also not address.[65] My view is that this behavior should be regarded as functional in a distinctive organizational sense; this reproductive behavior contributes to and is an essential part of a flourishing salmon life (more precisely, a salmon *bios*), and any salmon that failed to engage in this behavior would be in that respect deficient. For example, a salmon that is unable to swim upriver due to an external effect on its body may be conceptualized as injured or maimed.

For organizational theories, reproductive traits in particular have been regarded as being at least *prima facie* problematic, since they do not reproduce themselves in the way the theory needs them to. Generally speaking, there are three basic options available to these theorists.[66] The first is to simply deny that these behaviors are functional. The second option is to deny that these behaviors are functional in the organizational sense, but that they are functional in some other sense, and therefore adopt a "splitting" account of functions (thereby, I argue, giving up on a distinctive explanatory role for a conception of 'function').[67] A third option is to argue that reproductive behaviors are functional in the

[65] To be clear, these are entirely valid explanations; I am simply not concerned with them in this context.

[66] There may be others that I haven't considered. However these are the three most obvious options.

[67] See Delancey, C. (2006). "Ontology and teleofunctions: A defense and revision of the systematic account of teleological explanation." Synthese, 150, 69-98. for a defense of such a view.

organizational sense because those phenomena meet the requirements for functionality in wider systems such as populations or species that can be understood trans-generationally. I consider the first option unacceptable, as do most philosophers in this literature —these are, after all, just the sort of activities functional explanations are interested in explaining. The second option I shall set aside for now, but is also weaker, since it requires compromising theoretical unity.[68] The third option is the one taken by both Mossio et al and Schlosser.

According to Schlosser, "the systems-theoretical concept of function is comprehensive enough to cover these cases of functionality as well as cases of reproduction that do not cross the generation boundary, because applied [as] trans- and intra-generational function acsriptions…"[69] Similarly, Mossio et al write, "The OA [Organizational Approach] may explain functional attributions to reproductive traits by appealing to 'second order' self-maintaining systems, composed of a set of individual self-maintaining systems, in which reproductive traits could be subject to organizational closure…organisms belong to higher order historical systems, in which individuals, each having a limited lifetime, are continuously reproduced through generations…"[70] The idea here seems to be that a lineage, consisting of an unbroken line of offspring and parents, could itself be regarded as a system, with the individual organisms as parts of that system. There are sev-

[68] A general criticism of this account is that a more unified and simple conception of 'function' will have a clear epistemological advantage over a splitting account.

[69] Schlosser 326.

[70] Mossio et al, 835.

eral problems with this view. One issue that has been pointed out is that this leads organizational theorists to positing strange metaphysical entities (lineages considered as a concrete entity), and in particular viewing whole organisms as functional parts.[71] This is certainly one aspect of the problem, but more broadly this response involves an enormous shift in context (from living things to non-living things[72], such as populations, and from concrete individuals to groups). The initial context of the organizational view involves starting with individual organisms as paradigmatic cases of complex self-maintaining systems.

It is this change of context which leads to further difficulties for the view, as it undermines the goals of organizational theories mentioned above. Let us return to the example of salmon runs. If the function of a salmon run is understood in the "trans-generational" sense, to promote the reproduction of the complex system composed of many generations of salmon, the uniqueness and explanatory power of functional explanation breaks down. Suppose there is a salmon with a malformed olfactory system caused by a mutation such that it does not attempt to go upstream to spawn.[73] If this is the only way to understand the function of the salmon run, in what way is this salmon, *as an individual salmon*, deficient? The answer is that it is not, and rather that (following this line of thinking) it is a deficient part of the larger system encompassing generations of salmon

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[71] Marc Artiga, "The Organizational Account of Function is an Etiological Account of Function."

[72] Or at the very least, not uncontroversially living things. Whether populations could be considered as living is not a possibility I shall entertain here.

[73] Suppose that the deficiency was such that only its ability to use smell long-range as needed for the salmon run was affected.

(and therefore, would mean that the overall inter-generational system of salmon is to this extent deficient). But there is surely a failure on the part of the individual salmon, in that it has failed to properly realize the normative "salmon way of life" due to its flawed olfactory system — the individual salmon is a system that is guided by and equipped for the goals of reproduction. Moreover, it is not clear that from a trans-generational approach this should be regarded as threatening the self-maintenance of the inter-generational system of salmon. At worst, it is the meaningless loss of an inessential component, equivalent to the death of skin cells in a mammal that happen naturally over its lifespan. Moreover, mutations that lead to deficiencies in populations are actually an important contributor to species survival: they provide a basis of variation from which potentially fitness-enhancing features can be developed by natural selection.

Secondly, understanding reproductive traits in this way gives up on the meaningful sense in which functions refer to features of the systems they are a part of (one of the strengths of the organizational views). Clearly, an individual salmon is the creature that engages in a salmon run — but on this view this activity has no function for that individual salmon. To speak of a system composed of generations of salmon undergoing a salmon run (when some individuals within it may not even have done so, being eaten by bears or humans long beforehand) can only be accurate as a metaphor or abstraction. So the reproductive "functions" of these intergenerational systems make essential reference only to specific individual salmon, or past salmon that have died in the past, thus result-

ing in a fundamental separation of context between the activity of the functioning itself and the system in which the function exists.

Finally, this way of conceiving reproductive functions destroys the unique explanatory role, since they turn explanations of reproductive functions into evolutionary (or more specifically, selection) explanations. This is because, as Marc Artiga rightly points out[74], the explanation of reproductive functions turns into an etiological explanation, that explains the evolutionary history of traits and behavior in a population or species over generations. There is no need to re-conceptualize such evolutionary explanations in terms of thinking of them as systems with the reproductive traits of individual organisms (or organisms themselves) as functional parts. This does not add any explanatory value over understanding these features as adaptations of types of organisms caused by selection pressures.

B. Functions and Goals

The organizational account of functions is insightful as an account of the conditions under which functions may arise and be properly ascribed to systems. It might be thought that the strength of such an account is that it avoids ascribing goals or purposiveness to organisms in ascribing functions; in Schlosser's case, his motivation in part was to avoid a necessary reference to "goals" on the premise that they are incompatible with a "genuinely naturalistic" account of functions.[75] And indeed, there is a rich and long tradi-

[74] Artiga, "The Organizational Account of Function is an Etiological Account of Function." 10.

[75] See Gerard Schlosser, "Self-Re-Production and Functionality," 303-354.

tion in biology of attempting to do away with goals, or more broadly any form of teleology, owing to teleology's controversial status.[76]

Despite the rich array of discovery and understanding that resulted from a purely mechanistic approach to biology, the elimination of goals from biological explanation is increasingly (and rightly, in my view) understood to be a mistake (possibly a mistake that led to the problems discussed in the previous section);[77] not only are goals part of nature (and therefore not a threat to naturalistic explanations), but that the concept of a 'goal' is essential to understanding functional attributions in all (certainly, in all conscious) organisms.[78] Goals are part of nature in the sense that understanding them is a simple matter of observation of organisms. — this is something Aristotle himself stressed in his conception of teleology, and it does not require ascribing intention or design throughout nature.[79] The concept of a goal is formed by observing whole organisms pursue certain activities over others via self-regulation towards certain ends, such as prey or mates, and seeing in retrospect how those activities enable the organism to maintain itself and satisfy its needs. This concept cannot be eliminated without losing a crucial perspective on biology: the

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[76] For example, Ernst Mayr (1988) offers several reasons why teleology is controversial, including that it implies backward causation or the positing of a special "life force."

[77] See Newman S., "Complexity in Organismal Evolution," in C. Hooker, *Philosophy of Complex Systems*, 335-354, London: Elsevier, Shapiro, L., "Physiology of the Read-Write Genome," *Journal of Physiology* 592.11:2319-2341, Mark Okrent, *Nature, Normativity, and Meaning*, Routledge: 2019.

[78] Depending on the specific sense in which we mean 'goal,' I think even non-conscious entities such as plants and bacteria have goals; however, it is unclear whether in some contexts goals are understood to be inherently representational, and therefore dependent upon consciousness. In that case, some other concept such as "self-regulating organismic activity towards ends" would apply to all organisms.

[79] See *Physics* II.8, and an excellent discussion of Aristotle's overall conception of teleology in Johnson, M. R., *Aristotle on Teleology*.

lives of organisms as whole, integrated entities, with *unified* functional traits.[80] When a salmon uses its smell to return to its place of birth to spawn, we cannot *fully* explain its behavior by a mere relation between some chemicals reaching its olfactory system and a subsequent muscular reaction. The salmon as a whole has a goal of reaching its spawning ground, which is expressed by its olfactory system being fine-tuned to guiding it to that location. The function of the salmon run is a function of the whole salmon, and plays a crucial role in the life of the salmon.

Denis Walsh, defending the importance of natural teleology in his book *Organisms, Agency, and Evolution*, argues that goal-directedness is

> …an observable feature of a system's dynamics. It consists in the capacity of a system as a whole to enlist the causal capacities of its parts and direct them toward the attainment of a robustly stable end-point. That end-point is the system's goal. Being a goal is not a mysterious intrinsically normative property of a state of affairs. It is a complex relational property, the property of being a state the a goal-directed process tends to attain and maintain.[81]

It is precisely organisms, considered from the perspective of the Organizational View as self-maintaining differentiated organizations, that "enlist the causal capacities" of its parts towards the attainment of its goals, and without such a perspective, the functional explanation is incomplete (I or incoherent). The goals of organisms, the end-states they are guided by in their activity, are precisely those that integrate and coordinate the functions

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[80] For further discussion on this perspective, see Harry Binswanger, *The Biological Basis of Teleological* Concepts, Tyler Burge in "Primitive Agency and Natural Norms," Denis Walsh "Function and Teleology" in *Evolutionary Biology: Conceptual, Ethical, and Religious Issues* ed. R Paul Thompson, Georg Topfer, "Teleology and its Constitutive Role for Biology as the Science of Organized Systems in Nature." My comments here are not intended to bypass an ontological commitment to teleology in nature on the premise that it is merely a "practical precondition" of understanding living things (as we see in, say, Kant in §§64–65 of the *Analytic of Teleological Judgment*). I am here claiming that goals are needed for a crucial perspective *because* we in fact observe organisms acting in goal-directed ways: goals are real aspects of nature. I am indebted to Mark LeBar for helping me clarify this point.

[81] 195.

of a self-maintaining system into a system that can be maintained. In other words, the goals of the organism are needed to make sense of its functional components and all of its activities — from its various subsystems, such as the circulatory or digestive systems of animals, to its structural components such as the cell walls and roots of plants.[82]

The epistemological need to consider organisms as integrated, whole entities that cannot be eliminatively reduced to their individual physical components and interactions is why a holistic approach to functions (and therefore, the inclusion of goals) is required. From the perspective of causation, functional traits are not components that can be causally understood in isolation from the complex adaptive systems of which they are a part, and this is ultimately why the *bios* concept is needed, since it relates functions to the overall goals of the organism. What follows in the remaining sections will be primarily a sketch of how such an account could be fleshed out, and some discussion of its advantages.

There is inspiration for this approach to thinking about organisms' lives that can be traced to Neo-Aristotelian roots, particularly in Michael Thompson's seminal essay *The Representation of Life.* In that essay, Thompson argues that in the "wider context" of living things, we employ judgments of a peculiar category; he calls these "natural-historical judgments." On his view, these judgments, such as "the bobcat breeds in spring" or "horses have four legs" are to be distinguished from statistical statements or traditional

[82] It must be stressed here, as Walsh stresses, that "mechanistic and teleological explanations are complementary in the sense that each tells us something different about the event being explained" and therefore they are noncompeting forms of explanation (199).

Aristotelian logical statements such as “Some S are F” or “All S are F.” According to Thompson, “the attempt to produce a natural history, by contrast, expresses one’s *interpretation* or *understanding* of the life-form shared by the members of that class…and each judgment in it will bring the predicate-concept into direct connection with a representation of that “form.”[83]

What I think Thompson’s discussion of these “natural-historical judgments” illuminates in particular is that included within the concept of any particular living organism are the characteristic activities that those organisms engage in, including the in-built goals that guide the behavior of those organisms.[84] Since the life of an organism just *is* the *particular* life it carries out, there can be no contribution to the life or organization or system of an organism apart from a contribution to this behaviors and the pursuit of the goals set by the organism. Consider for a moment if we dropped the context of the particular life-form of an organism when evaluating whether and how certain traits, activities, or events constituted a contribution to the particular organism. In that case, we might ask why a praying mantis does not simply engage in binary fission (which is a much safer way of reproducing) or why fungi do not develop nervous systems in order to better manipulate their environment, or why chicks don’t automatically know on their own not to try to leave nests before they can actually fly. The clear answer to all such queries is that the

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[83] Thompson, *The Representation of Life*, 73.

[84] “Programmed,” that is, by the genetic information contained in the DNA of the organism in question. This is one perspective on the issue of how the goals of organisms are determined, but need not be the only one.

organisms in question do not have a choice about their behavior or traits; to exist as the kind of organism they are involves having to engage in the specific kinds of goal-directed behavior[85] particular to their life form. This perspective is, in fact, a precondition of a scientific study of any of these organisms. It is also a precondition, from a negative perspect, of understanding what it means for an organism to be maimed, injured, weak, dying, etc. In this way, Thompson's discussion helps us see how his life-form concept allows us to understand and classify activities as contributing to the well-being of the organism during proper functioning. It is worth noting that my discussion of ways of life departs significantly from Thompson in a crucial respect: while he sees the life-form concept as an *a priori* conceptualization of organisms, I will argue that it fulfills a crucial need in empirical biological explanation.

I have argued that the Organizational View is promising insofar as it attempts to find a unique form of biological explanation, that does not simply collapse into etiological (or evolutionary) explanation or simple efficient causal explanation. However, the perspective of the goals of the organism, and their coordination into a way of life, is needed to fully validate the concept of function. It is is to this issue that I will now turn.

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[85] This does not rule out, of course, that for a given organism there may be multiple "regimes" of self-maintenance, which apply in different situations. Mosseo et al make this point to observe that certain traits may be crucial to a specific regime of self-maintenance but not all regimes, and therefore not necessarily crucial to the self-maintenance of the system independent of the regime under consideration. For instance, if an animal that normally survives by seeing predators and prey goes blind, it may survive under an alternate regime of relying primarily on touch and smell.

C. *Bios* and Explanation

To overcome the limitations of the organizational approach, not only in capturing developmental and reproductive functions, but more broadly in capturing and explaining the goal-directedness of the organisms functions are ascribed to, I suggest the use of the concept "*bios,"* or "way-of-life," which is itself familiar from Aristotle's biology. The work by Jim Lennox, a well-known scholar on Aristotle's biology, on Aristotle's concept of *bios* is a useful and insightful starting point for this project. I shall therefore follow Lennox in defining *bios* as "the full complement of an [organism's] activities organized around the single goal of its specific way of life."[86] Notice that this definition emphasizes activity, but this is no barrier to understanding functions as elements of a *bios* (as I shall argue), since functional capacities represent potential activity. In other words, organismic activity is simply another perspective on functional capacities. Moreover, it is important to note that the *bios* concept is abstract - something instantiated by an individuals organisms, to be sure, but that covers organisms of a given species. Insofar as my examples and discussions focus on individuals, I understand them to be instantiations of a given *bios*.

As Lennox explains, one of Aristotle's main goals in his development of biology was to identify the source of the unity of living organisms. That is, he sought a concept that explained the way in which all of an organism's various functions contribute in a co-

[86] Lennox, J. (2009). Form, Essence and Explanation in Aristotle's Biology. In G. Anagnostopoulos (Ed.), A Companion to Aristotle (pp. 348–367). London: Blackwell. I have changed "animal" to "organism" here, since, though in that particular passage Lennox was focused on animals, the *bios* concept applies to all organisms.

ordinated way to the specific kind of life that the organism lives. This concept, the *bios,* serves to integrate the various parts, traits, and activities of organisms - and therefore identifying organisms as nocturnal, diurnal, subterranean, terrestrial, marine, social, solitary and so on.[87] These characterizations are not reducible to particular activities or traits because they are compatible with an indefinite number of possible activities, and specific environmental contexts, that relate to that way of life. So, for example, seabirds share a *bios* that involves many shared physical and behavioral characteristics such as beaks, egg-laying, feeding, wings, leg anatomy, etc., which of course have innumerable variations. This is because the *bios*, as Lennox puts it, "enforces a kind of coordination on activities."[88] All seabirds have means of protecting their eggs from prey in inaccessible areas, using their beaks, mode of flight and so on, many features that no fish lives or mammal lives have.

The *bios* concept serves two roles, as Lennox argues. The first is organization of data about the activities of the organism and their way of life. The seabird *bios*, for instance, organizes a vast amount of data about specific activities and traits that seabirds have (with variations) and how those relate to their environmental context. The environmental context includes where and under what conditions food is pursued, offspring are

[87] Lennox, "Bios and Explanatory Unity in Aristotle's Biology." 240. He finds this list in the opening observations of the *Historia Animalium.*

[88] Lennox 247.

raised, communities (if any) are formed, and so on.[89] The second role is explanatory: *bios* explains why a general part or function is different than another. This explanatory role becomes clearer when we consider the sets of functional features that an organism has. To continue with the preceding example, seabirds are winged and require food that is distant and rangers over a wide area (e.g., fish and krill) which also require that seabirds be able to physiologically withstand ingesting significant amounts of seawater. The particular structures of the parts of any given bird will be explained functionally by the activities to which it contributes. The *bios* explains the coordination of these structures in organizing a particular way of life. For instance, the enormous wings of the wandering albatross serve to enable flight, but to understand why the wings are so large relative to other seabirds we need the wider context of the *bios* of the albatross, which involves ranging over enormous stretches of sea in search of food and nesting sites.

Helpfully for our purposes here, Lennox further explains what role *bios* can play in contemporary biology. In particular, he finds a role for it in eco-morphology, one of the areas of research in biology that "are concerned to explain the coordinated nature of adaptation by reference to the overall way of life of an organism."[90] The biologists working in eco-morphology seek explanations for how the various functional structures of an

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[89] It may have already occurred to the reader that animals may of course tend towards multiple ways of life. For example, many marine animals (such as cetaceans) breathe air, such that from one perspective they share a way of life with land-dwelling animals, who all take in oxygen directly from the air. This does not undermine the use and importance of *bios,* however. This is because understanding and accounting for the activities of an organism, say cetaceans and their marine activities, will depend upon a conception of that animal having a way of life that unifies those activities and coordinates them (Lennox 247).

[90] Lennox 255. He cites P. Dullemeijer, Functional Morphology and Evolutionary Biology, *Acta Biotheoretica* 29. 1981, 151-250.

organism are coordinated and contribute to a single complex goal such as flight. As Lennox explains, because the focus of this subfield is on whole organisms and their integrated activities, it seeks a different perspective and explanation of traits compared to evolutionary biology, which focuses on single genetic traits in populations. The suggestion is that the *bios* concept could serve a central organizing role in eco-morphology, and (I would add) ground functional explanations and place them in their proper context.

We can find in Denis Walsh's *Organisms, Agency and Evolution* a further conceptual bolstering for the *bios* concept. There, Walsh argues that to understand the process of evolution, we need to see organisms as purposive or goal-directed, and in that sense as agents of their own change. As I stated above, I am not concerned here with evolutionary explanation (though of course *qua* explanation of organismal features it is related to functional explanation). More relevantly for my purposes here, Walsh introduces a triad of concepts: goal, affordance, and repertoire, that jointly constitute his "ecological account" of organismic agency.[91] For Walsh, a goal is "that state [of a system] that it tends to robustly attain, or maintain, by marshaling its behavioral repertoire, in response to affordances." He then defines affordance as "an opportunity for, or an impediment to, the attainment of a goal." A repertoire is "the set of possible responses that a system can enlist in pursuit of its goal (in response to its conditions)."[92] We can take a North American beaver (*Castor canadensis*) building a dam to break these components down into an ex-

[91] 210.

[92] *Ibid*.

ample. The beaver has a goal of providing for its shelter through the construction of the dam structure. In doing so, nearby trees, twigs, rocks, and grass serve as affordances in the environment that assist in the building of the dam. Leaks or damages to the structure would be impediments that trigger the beaver to repair the dam. Finally, the beaver uses its repertoire of powerful teeth, swimming, and powerful jaw and neck muscles to construct the dam and transport materials. Together, these concepts can be used to add some more determinate conceptual structure to *bios* beyond function. Indeed, plausibly we may construe these three components as three central types of function in an organisms' *bios*. They help explain the beaver's traits, development, and behavior across a range of circumstances and contexts.

D. *Bios,* Development and Reproduction

The works of Lennox and Walsh have already suggested some general ways in which the *bios* concept can be useful to contemporary biology. I will now integrate it back with my earlier functional explanations, in particular as it pertains to the Organizational View. Generally speaking, my solution involves two components. First, it serves to integrate all the functional traits of organism into its way of life or *bios*, *including* developmental and reproductive functions. This means there is no longer a *special* problem for accounting for reproductive and developmental traits as contributing to the self-maintaining system. Secondly, my solution involves conceptualizing reproductive and develop-

mental traits as functional, but more specifically as internal preconditions for the existence and self-maintenance of the system.

Recall that the *bios* concept integrates and unifies the functional activities and traits of the organism. Let us take up again the example of reproductive traits and activities. Part of the way of life or *bios* of the salmon is swimming out to the ocean and back again upriver to spawn. Similarly, there is no such thing as being a bacterium without the goal to perform binary fission - that is part of the bacteria *bios*.[93] These activities, or the traits or drives that lead to those activities taking place, are functional - they are non-accidental aspects of the lives of those organisms that contribute to the specific functioning of the organism as a system; but they do not lead to any self-reproduction of the system in a simple sense. The organism is often endangered or even destroyed at the end of such activities.[94] But these are goal-directed activities of the whole organism —an aspect of what makes them what they are—and therefore amount to an aspect of the *bios* of the organism; without them the organisms in question would be deficient, and their well-being impaired.[95] Developmental functions, such as the function of embryonic stem cells during cellular differentiation in a zygote, can also be understood in an integrated way alongside

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[93] There is no backwards causation. So when I say that the behaviors of plants, fungi, or bacteria (which are not conscious and therefore cannot have conscious goals or ends) are goal directed, what this means is that their goals are determined by past instances of their kind. So a particular plant may have the goal of absorbing more sunlight by turning its leaves because past instances of this plant performed this same activity and it increased fitness.

[94] Or, in the case of developmental functions, they occur once and never again.

[95] In other words, the fact that, say, a male Australian redback spider (*Latrodectus hasselti*) is consumed by his mate immediately after reproduction is not to say that its “interests” or “well-being” would necessitate avoiding reproduction.

other functions, since they are part of the natural (normative) development of multi-cellular organisms. The Organizational View cannot properly describe or explain these, again, because the embryonic stem cells are not contributing to the system in a way that involves their simple physical maintenance or self-reproduction but rather occur as part of a developmental stage after which they are replaced.

The second aspect of my solution is to understand developmental and reproductive traits as *preconditions* for the existence of the self-maintaining system. For any organism to exist,[96] it must have some method of development (biological progression from birth to maturity) and a method of reproduction, just as all organisms require some specific form of metabolism. Moreover, the development and reproduction must be of a specific kind relating to a specific *bios* - a seabird is only equipped to reproduce and develop as a seabird, whereas an oak tree is only equipped to reproduce and develop as an oak tree, and so on. Because they are preconditions, they can be understood as *contributing* to the *bios* of the organism insofar as they must be present for that *bios* to be possible at all.[97] There would be no whales without whale reproductive drives, and there would be no bacteria without fission. We can (and should) moreover distinguish between these *in-*

[96] There are some exceptions, such as mules. Mules are not a problem for my view, since it is not problematic to suggest that their reproductive parts are simply not functional in their way of life. Another qualification is needed: for human beings (which I will address later in this chapter) reproduction happens by choice — it is not a necessary precondition of the existence of humans that all humans have an innate reproductive drive (merely the capacity is needed). If there were an innate drive, and not reproducing led to serious physical or mental pain or impairment in human beings, this would be (counterfactually) grounds for viewing human beings who chose not to reproduce as defective.

[97] An important inspiration for this view is Harry Binswanger, *The Biological Basis of Teleological Concepts*, though he uses the idea of a beneficial precondition in a different context.

ternal preconditions (that are functional traits of the organism) to their *bios*, from *external* preconditions (e.g. atmospheric pressure, temperature, gravity). The internal preconditions are properly regarded as part of the *bios* itself, since they are activities and processes internal to the organism undergoing them, rather than external background conditions. Therefore, reproductive and developmental functions can be understood as making a contribution to the self-maintaining system that has those functional traits, rather than a wider "encompassing system." This solution therefore allows the account of functional explanation to sidestep the worries raised by Marc Artiga et al., and importantly makes it possible to integrate developmental and reproductive functions into the *bios*.

I wrote above that the bios integrates the functional capacities of organisms. As with the Organizational View, clearly not all aspects of organisms are functional, and therefore not all aspects, effects or capacities of organisms are part of its *bios*. For instance, the fact that the hearts of organisms that have them make a thumping sound plays no functional role in their lives, and is therefore properly regarded as an accident. The capacity of a bear to entertain in a circus is not a part of its bios. The same is true in the fact that leopard furs are viewed as beautiful by human beings, or that the honey bees make is very tasty in tea, or that a baby gazelle's meat (from the perspective of the lion bios) is very nutritious for a lion. This is because all of these accidental features do not pertain to the natural goals of the organism as they are integrated and coordinated in its overall life activity which constitutes its form of self-maintenance.

E. Evaluating the *Bios* View

To see the full relevance of the view I have sketched out here, let us return to the general notion of functional explanations and the way that the *Bios* View would approach such explanations.

Recall that the two basic questions functional explanations seek to answer are 1) Why is a trait/structure present? and 2) How does a trait/structure/behavior operate in its system? Moreover, function ascriptions ground normative standards about those traits and structures. There are also several constraints I laid out on a successful theory of functional explanation and ascription:

A. Provides ability to objectively distinguish between function and accident

B. Avoids regress of function attribution by non-arbitrarily specifying a final end or containing system

C. Provides an account of *how* functions make contributions to their possessors

D. Provide a unique explanatory role for functions

Organizational views attempted to retain the strengths of each and answer both 1) and 2) via the concept of a "self-reproducing system" as the locus of function attribution and explanation: functional traits operate in such a way that they contribute to the self-reproduction of the system in which they are contained, which thereby in turns maintains the functional trait and explains its presence over time. They also introduced some con-

ceptual frameworks to help meet the constraints. For instance, constraints A and C are addressed by the distinction between primary and secondary functions and regimes of self-maintenance, and regimes of self-maintenance also help address constraint C. The concepts of closure and differentiation further help address constraints A and B. Finally, these views met condition D by outlining a conception of function that does more explanatory work than mere efficient causation but does not amount to some form of evolutionary explanation.

Where the organizational views struggle is in accounting for paradigmatically functional traits and activities that do not contribute directly to the self-reproduction of the system in a more basic sense: developmental traits and structures, such as organogenesis in embryonic development, and reproductive traits, such as binary fission and parental care in birds. Mossio et. al, aware of at least the problem of reproductive traits, attempted to resolve this by conceiving of those traits as being functional in higher order systems going beyond organisms and instead including populations and lineages. This approach turns the organizational view into an etiological view and causes it to lose its distinctive advantages. They also fail to maintain the unity of functional traits in the systems in which they exist.

The *Bios* View aims to maintain the insights and theoretical strengths of the organizational view, but account for the fact that the traits and activities of organisms are functional ultimately as part of an ongoing *bios* or way of life of the self-maintaining system. These concepts allow us to properly conceptualize developmental and reproductive

traits in a non-etiological way, and understand their contribution to organizational systems via their being *internal* preconditions of the existence and activities of the self-reproducing system. Moreover, the explanatory project of functional explanation is not merely to understand how structures physically reproduce themselves, but more broadly how functions are integrated and coordinated in the life of the organism that has those structures. Thus, functional explanations on the *Bios* View turn out to be explanations of how activities and traits contribute to a self-maintaining differentiated system under closure, understood as a system carrying out a way of life.

IV. The Human *Bios*

At the outset of this chapter, I explained that my account of function would put an important insight from Aristotle's Function Argument - that the normative standards governing entities have their source in the functional capacities of those entities - in a new light. Specifically, I promised to offer an account of function that shows why and how it is indispensable in biology, and how it grounds objective normative standards for living organisms and their traits and activities. Aristotle's argument, of course, was presented ultimately for the sake of defending a view of the *human* function, which I have not yet addressed. We are now in a position to examine how the *bios* view offers a powerful perspective on what it is for a human being to live well - that is, on human flourishing.

On the *bios* view, for any organism, its functional capacities are to be understood as integrated aspects of a self-maintaining way of life. We understand the function of the

Tristan albatross' (Diomedea dabbanena) beak by reference to the specific fish it eats and understand its digestive capacities as integrated with its caloric needs for flight, etc. Part of what it means to view the functional capacities of the albatross as integrated is that there is some central coordination between them. In other words, the albatross does not randomly go out in search of food at any random time nor does the albatross seek out mates at random times. Instead, these functional capacities are exercised in response to coordinated drives and instincts (e.g., to reproduce, seek out food, raise young) and are pursued by the albatross' goal-seeking mechanism (i.e., its consciousness). Without this mechanism (i.e., its distinctive form of consciousness), the albatross would be incapable of carrying out its *bios*. By contrast, a Coast redwood tree (Sequoia sempervirens) needs no consciousness to support its *bios*; its functional capacities for water collection, photosynthesis, branch and trunk growth, and so on are coordinated by genetic dispositions and responses to external stimuli. These functional capacities are still to be understood teleologically - insofar as these *aim* at certain objects and states that constitute the maintenance of its life. For instance, coast redwoods grow straight upward in response to gravitational forces, and condense water from coastal fog onto their leaves, which is then collected from the ground as it falls. This allows it to grow tall above other trees, and acquire plentiful sunlight and water for photosynthesis.

In essence, this is simply a reformulation of Aristotle's view in *De Anima* that the lives of plants and animals are to be understood in terms of their type of "soul": nutritive

for plants, and perceptual for animals.[98] In this respect, human beings are no different, except that their type of soul (rational) is different: the functional capacities and activities of human beings are coordinated and made possible by rational activity - the activities of conceptual identification, practical deliberation, and chosen purposes. This is the functional activity that makes humans characteristically what they are, and enables them to sustain their lives.

This is a perspective beautifully explored in Philippa Foot's *Natural Goodness*. Relying on insights from Michael Thompson's "The Representation of Life," Foot lays out a basis for identifying human virtue on the basis of identifying natural goodness and defect. As Foot rightly and crucially observes, the context of human beings, because of our capacity for practical reason - our capacity to plan, offer justifications and criticism of action, and address pressing normative enquiries - our understanding of the human good (despite maintaining the *structure* of the natural goods in other organisms) takes a new form:

> …when we think about the idea of an individual's *good* as opposed to its *goodness*, as we started to do in introducing the concept of benefit, human good must indeed be recognized as different from good in the world of plants or animals, where good consisted in success in the cycle of development, self-maintenance, and reproduction.[99]

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[98] *DA* 413a23.

[99] Foot, *Natural Goodness*, 51.

Foot rightly proceeds to observe that human beings must act and make choices on the basis of justifications and chosen purposes - our distinctive way of life is not characterized by instinct or drives but by rational choice.

What is different from the perspective of the *bios* view is that this characteristic activity is what makes the human *bios* possible not only by instantiating it (or making it unique) but by sustaining it; in other words, rationality creates no exception to the rule (as Foot attempts to demarcate above) that functions are aspects of self-maintaining systems that contribute to that self-maintenance. Several important qualifications and clarifications are needed here.

A. The Distinctiveness of Rationality

In the human case, rational activity is necessary for any of the other functional capacities of human beings (those that are not themselves subject to rational control) to be exercised well - for instance, digestion, circulation, perception. The ability to continually carry execute those functions is made possible by rational activity involving identification and pursuit of that which contributes to physical sustenance (food, shelter, clothing, safety from predators or dangers, etc). Without rational activity, the automatic bodily functions of human beings would not sustain the functioning of their physical body. Obviously, the rational activity that sustains human bodily functions need not in all cases be the activity of the possessor of those functions. For instance, as babies human beings are obviously not choosing and rationally identifying for themselves which foods to eat or how to find them, since their rational capacity is not yet formed enough for them to do so.

But the fact that remains that some adult who is able to exercise that capacity must then be feeding the baby in order for it to survive. The same might be said of those who are too old or mentally disabled to use their capacities. Moreover, the fact that rational activity is necessary for the successful exercise of non-rational functional capacities does not mean that rational activity guarantees that successful exercise (i.e., that its contribution is sufficient). This can happen, for example, when rational activity is executed poorly, such as when one disregards the health risks of consuming large amounts of alcohol and destroys one's own liver. This can even happen when rational activity is exercised well but unforeseen circumstances arise (e.g., the sudden development of cancer in an otherwise healthy person).

In addition, rational activity does more than merely contribute to the sustenance of the physical body; it provides for the maintenance of psychological states and activities that are necessary for the human *bios* (i.e. psychological values), including self-esteem (positive self-evaluation), motivation, purposefulness, and connectedness to others (friendships and relationships, language and communication, social organizations, etc.). These psychological values are needed for us to flourish in our lives - to stay engaged and successful in goal-pursuit, but they are not achieved through automatic functioning of sub-rational capacities in our bodies. Instead, we achieve and maintain them through choosing them through deliberation, understanding them, learning about them, habituating ourselves, etc., which are all various aspects of our rational capacity. As with rational activity's contribution to our physical well-being, the mere fact that rational activity is

being exercised is no guarantee that our psychological needs will be met; one may pursue destructive relationships that cripple one's emotional capacity or ability to stay engaged and motivated in life. However, rational activity is ultimately necessary to meet these needs.

Again, the point here is not merely that human beings are classified as those organisms that uniquely have purposes, friendships, and so on (though this is true).[100] For this is true equally of destructive (i.e., destructive of the human *bios*) traits and activities, such as drug addiction, emotionalism, slavery, cults, etc. Rather, the point is that human life - the self-maintenance of the coordinated capacities and their exercise that make up the human *bios* - requires the cultivation and maintenance (via rational activity) of certain psychological functions as well as physical functions.

B. Applying the *Bios* View

There are two more issues here worth highlighting, as they will be important as I make use of the *Bios* view in subsequent chapters.

The first is that the *Bios* view helps clarify where we may locate the continuity and discontinuity between human life and the lives of other organisms. According to the *Bios* view, the continuity lies in the fact that all living things are self-maintaining systems, where they are to be understood and explained in terms of their functional capacities that maintain a way of life. These functional capacities provide an objective founda-

[100] Such would be the mistake of understanding human functioning merely as "what is unique or characteristic" of human beings.

tion for the flourishing/suffering or natural goodness and defect of organisms. The discontinuity is in the fact that our particular functional capacities are indeed unique (as far as we know): they involve conscious choice, deliberation, acquisition of knowledge, and so on. I understand these together as “rational activity” insofar as they all involve our capacity to deliberate on the basis of reasons and process information conceptually. Because they involve rationality, our *Bios* necessarily involves an element of self-construction or self-discovery: we need to discover, formulate, and choose the principles and methods by which we are to live well. This is quite compatible with the nature of our functional capacities; it implies, however, that to flourish, we need to understand our own functional capacities and what principles or ways of living will be consistent with their proper sustenance.

The second point to stress is that the standard of human flourishing afforded by the *Bios* view occurs along a multi-dimensional continuum, and is aspirational rather than a threshold standard.[101] I shall briefly explain these in turn. The *Bios* standard recognizes that humans have various functional requirements of living, and that living well means meeting these functional needs together, in a coordinated and integrated way. The idea of well-being as multi-dimensional is familiar from the literature on well-being, and we can see a clear example of this in the Capability Approach developed by Amartya Sen and Martha Nussbaum.[102] On their approach, human well-being is to be understood in terms

[101] See Kristján Kristjánsson, Flourishing as the Aim of Education: A Neo-Aristotelian View, 11. This is also identical to the point Daniel Russell makes about virtue being a “satis concept,” 2009, 4.2

[102] 2011a, *Creating Capabilities*, Cambridge, MA: Harvard University Press.

of the freedom and capability to engage in a cluster of activities, such as, e.g., the capacity for speech, language, play, bodily health and integrity, and affiliation with others, that together constitute the realization of flourishing.[103] This multi-dimensionality means that we cannot measure well-being in a person without considering a multitude of factors, and some different combinations of realized functioning may not be comparable. For instance, suppose that flourishing requires both bodily integrity (successful bodily functioning) but also the capacity for friendship. It may not be possible to evaluate as better or worse off an individual with high levels of bodily integrity and health but low social affiliation versus an individual with poor levels of bodily health but high levels of connectedness, friendship, and affiliation with others. The purpose of the standard is not primarily to attempt to make such determinations, but rather provide an objective standard by which we can evaluate what each life is lacking and why. Clearly, this is also why the standard involves a continuum. To say that successful human functioning is successful self-sustenance is not to say that one either functions well or not, full stop. There are degrees of conformity to the requirements of the human *Bios*, just as their are degrees of psychological and physical health, degrees of ambitiousness, degrees of connectedness to others, and degrees of intrinsic motivation. This, in turn, is why the standard of human flourishing afforded by the *Bios* view is aspirational rather than a threshold standard. As a classic example, many concepts employ standards that involve the simple meeting of a threshold in order to successfully instantiate it — consider, e.g., being pregnant or not,

[103] 2000, Women and Human Development: The Capabilities Approach, Cambridge: Cambridge University Press. 84

being a plant or animal, being constituted by organic molecules versus inorganic molecules. Occasionally, it is appropriate to use "living" as a threshold concept in this sense — this animal is either living or dead, and there's no in between: it either meets the threshold or not. For non-human organisms, their *Bioi* could be seen to involve a threshold in a wider sense, as well. Since they cannot expand their knowledge or make choices to expand their ability to survive, it can be appropriate to evaluate and classify such organisms according to whether their lives fit into the generic patterns of functioning and activity that their in-built goals direct them towards. For human beings, however, the *Bios* standard is aspirational in the sense that the improvement of human life, owing to the open-ended nature of rational development (i.e., improvement of knowledge, psychological engagement, etc.), is potentially unlimited. Therefore, the standard is never fully met or realized per se, as though a threshold could be reached where one could say, "this constitutes fully realized human flourishing." There is always more knowledge, understanding, engagement, and opportunity for creation and action that can be achieved. For this reason, the standard must be understood and formulated in a way that acknowledges the unlimited potential for improvement to human life. This is indeed in part why, as I shall argue further in Chapter IV, production is so central to human life, since it is the central means by which improvement to the human condition is effectuated. Ultimately, while there are contexts of inquiry in which understanding "living" or "self-sustenance" as a threshold concept are appropriate, this usage is not primary and rather is derivative on a

conception of what it means for human beings to live to begin with, which is what the *Bios* view accounts for.[104]

The third point to stress is that because of the unique nature of human rationality, our *bioi* admits of wide ranges of possibilities of realization. Its certainly true that other species, such as other animals and plants, may have a range of possible realizations of their *bioi* in terms of their regimes of self-maintenance, geographic location, number of offspring, etc., the human case is much more radical, insofar as rationality enables variety on countless issues from the number and kind of friends one has to the climate one lives in to the diet one has and so on. This is no objection to identifying a *bios* any more than it is an objection to a science of medicine or psychology; it merely means that much more information has to be integrated and accounted for in the study of the human *bios*. Among other things, it means that human beings can engage in actions that are destructive of their own capacities (in a way that generally speaking, other organisms cannot or do not) and therefore of their own *bios,* since our rational capacity must be exercised by choice and is not automatically exercised in regard to the requirements of our *bios*. For instance, in addition to the examples I gave above, we can become depressed and fail to act to meet our own needs, or join a cult that encourages us to commit suicide, or ignore our psychological defects and problems, or weaken our bodies with unhealthy food. This is obvious,

[104] There is yet another context in which one may use flourishing as a threshold (or satis) concept, which may be to identify whether one has reached one's own potential. For instance, we may ask of, say, Henry, whether in his career as an artist he reached the highest potential for creativity and mastery that he could have achieved, given his psychological makeup, external resources, and so on. In such a case one may use as a threshold whether one has achieved that, or not. However, this does not change the fact that more generally, human life can always be improved over time, and that the foundational standard is open-ended, as it applies to human nature in general.

but it is an important part of the perspective from which the human bios is one that, to be fully realized (or for its needs to be met) requires guidance in the form of normative standards.

I have sketched out an account of functioning on which we can understand what it is for an organism to be flourishing or defective. What remains to be shown, then, is how this applies to ethical reflection and activity in human beings — our lives considered from the perspective of fundamental choices and ways of living and acting. The same pattern of objective grounding could apply to ethical values (such as values of character) if they themselves could be shown to have a function, or that the choice and pursuit of certain ethical values over others has significance for human functioning and the sustenance of the human *bios*. It is from this perspective that I shall take up the eudaimonistic framework in the next chapter — how, from considering the nature of human practical rationality and the human *bios,* a certain structuring of human life is needed to live well.

II. Eudaimonia as Self-Sustaining

I. *Bios* and Ethics

In the previous chapter, I argued that we can locate an objective foundation for ethical norms just in the way Aristotle did: by looking to the nature of biological function. Far from being an outdated or unnecessary concept, the concept of function has a proper grounding and explanatory role in explaining the nature of self-maintaining, differentiated organizations: paradigmatically, organisms. Moreover, organisms are necessarily goal-directed entities, and to fully make sense of their functions we need to see their functions as unified and coordinated by the organism's goals, culminating in a way of life or *bios*. While humans don't have built-in natural goals, owing to our rational nature, we do have in-build natural functions that need to be preserved in order to sustain the human *bios*. There are three key features of the human *bios* that I mark as relevant for understanding the conditions necessary for *eudaimonia*, or in other words the flourishing[1] which ethics guides us in achieving. The first is that since life is an end in itself (an internally goal-directed activity), *eudaimonia* must be an end in itself or **ultimate**, and indeed the ultimate end. This is also a perspective that can be reached from considering the nature of reasoning, as will be shown in this chapter. The second is that *eudaimonia* must be **self-direct-**

[1] I.e., objective personal well being, or thriving according to the standards determined by the human *bios*.

ed, because the human *bios* is a life guided by rational choice and agency.[2] The third is that *eudaimonia* is **self-sustaining**, in the sense that, being a way of life, it involves as constituents the activities internal to that way of life that sustain it. The first two of these three conditions are widely recognized, and so I will merely briefly review them, and focus the majority of my attention on the third.

Recall that what the *Bios* view shows us is that to function well is to have one's distinct biological capacities working together in a coordinated way to sustain the way of life appropriate to one's nature. For human beings, our nature is rational, and therefore functioning well involves the activity that makes rationality possible and allows us to sustain ourselves in existence (i.e., sustain our life) as rational agents. Consequently, our lives are constituted not just by the automatic functioning of our bodies, or even our automatic perceptual systems, but the artifacts that are "constructed" by rational activity, in order to serve the human *Bios*. Familiar to us and uncontroversial among these would be houses to shelter us, the growing of food, forming of communities, scientific knowledge, trade, etc. However, we may (and ought) in addition conceive of our normative *concepts* (and concepts more generally) as being functional for the human *bios* in just the same way as other artifacts: they are tools we create, modify, and use in order to cognitively grasp facts of reality and make decisions and judgments accordingly, as well as communicating with others.

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[2] In a broader sense, we may regard all organismic activity as agential; this is part of Denis Walsh's aim in *Organisms, Agency, and Evolution* (Cambridge 2015); at any rate, in this context, I am identifying the more specific and unique sense in which human life is self-directed as a product of rational agency. Because it is beyond the scope of this paper and rather controversial (in a way that is largely unnecessary for my purposes here), I specifically aim here to set aside concerns about free will and determinism.

Understanding concepts as having a crucial functional role in cognition allows us to see how we may see ethical concepts (such as virtue concepts) as functional in identifying and integrating large amounts of knowledge (e.g., abstract scientific knowledge, legal knowledge, applied science, interpersonal knowledge, etc) about the human *bios* as it pertains to one's life, actions, and choices — the actions and choices that pertain to the moral ends or values that one seeks to achieve.[3] By values, I mean simply that which is pursued or kept as a goal in action.[4] Thus, "value" in this sense incorporates everything from food and shelter to friendship, career, productive achievement, art, etc. Deeper or more significant values, such as long-term goals or relationships, involve our having stable patterns of emotions, motivations, and judgments with respect to them. Moral values I understand here as the fundamental or core values of one's character and self. In both cases, what will demarcate genuine or sound values from defective or improper values will be whether or to what extent such values are justified by the human *bios* standard.[5] Proper moral values, on this account, would include, for instance, reason (one's capacity to reason and think properly, and knowledge) self-esteem (i.e., positive self-evaluation and self-knowledge), purpose (understanding one's actions and choices as fitting together

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[3] In general, when I speak of values, I mean moral values, understood as a subset of values, which I understand more broadly as anything that is pursued as an end in action. However, I return to a broader usage when discussing production and trade, as I hope the context makes clear.

[4] Here, I take Ayn Rand's definition of value as "that which one acts to gain and/or keep" from "The Objectivist Ethics," 15. I find this is an excellent characterization of "value" in the broad sense meant to cover both normatively sound values and those that are defective. I also take inspiration here from Valerie Tiberius' characterization of value "…to value something in the fullest sense is to have a relatively stable pattern emotional, motivational, and cognitive dispositions or tendencies towards what is valued", *Well-Being as Value Fulfillment*, 11.

[5] Often, moral values are taken to be those that are "other-regarding," but here I understand them more from the perspective of the basic aspects of our character that are open to choice.

and for the sake of ends one finds meaningful and worthwhile and striving for coherence in values) as cardinal values that pertain to all instances of human valuing, as well as more concrete essential values such as joy, production and friendship (understood in the broad, Aristotelian sense to include romantic relationships as well as intimate friendships of a non-romantic nature, and the activities these imply).[6] Defective moral values (such as vices of character) count as defective to the extent that they undermine, preclude, or destroy the genuine moral values needed for the human *bios*. On the view I will develop here, these values (taken from an abstract perspective) can be understood together to be a constellation of values that together constitute the human *bios*. I am therefore taking what are normally considered 'intrinsic' and 'instrumental' values together. I do not take a stand on whether this distinction is justified; instead I focus on values as functional components of the human *bios*, irrespective of whether they are pursued instrumentally or for their own sake. What is more relevant here, for my purposes, is whether moral values are crucial functional components of the human bios and not simply replaceable or unnecessary components. To justify these claims and the use of the *bios* standard, I shall explain

[6] I have further followed Rand in taking reason, self-esteem, and purpose to be core values, and added joy, productive activity, and friendship to the list as values that are core to human life but not cardinal in her sense. I do not think this results in a substantially different picture of moral values than that which Rand offers, though it highlights different points of emphasis. I take "joy" to be a moral value in the sense that part of keeping up one's motivation and purposefulness in life involves finding ways to take joy in one's activities, and finding those which bring one joy. This does not imply a hedonistic view; joy is not identical to pleasure, and in any case pleasure is one among several other important core values, which jointly comprise a human *bios*. Friendship I add as an emphasis on the fact that, any human being needs visibility from others in order to learn about themselves, remain engaged with their lives, and take pleasure in their work and leisure. While I do not discuss it further here, my view of the role of friendship in human life is essentially that of Aristotle's in Book VIII-IX of *NE*. Finally, Rand usually seems to regard productive activity as an aspect of the value of purpose, which extends more broadly. I find it useful to separate these into two, not because they are wholly distinct (since all the values in this list have multiple overlapping components) but because it is helpful to think about productive activity as a core value one must cultivate, and separately about how one applies purposefulness to one's non-work activities, such as relationships, exercise, leisure, education, parenting, and so on.

it in the context of the eudaimonist framework - the framework that takes *eudaimonia* to be the concept at the heart of ethical reflection.

II. Eudaimonism

I take ethical reflection to be reflection about how to live one's life from a fundamental perspective (again, following Aristotle), a perspective from which one considers one's character and the kind of life one lives.[7] Ethical reflection involves (and, in my view, requires) two distinct but interrelated cognitive activities: the evaluation of actions and choices from the perspective of our chosen values and deliberative capacity, and the the validation of values by reference to an objective standard rooted in human nature (the *bios* perspective).[8] .

We can think of these two cognitive activities as each answering a question (which breaks down the first question into two parts): 1) How do I pursue and achieve values and happiness? and 2) How do I determine that my value-system has an objective basis in reality?[9]

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[7] By fundamental, I mean that the study ethics concerns choices and actions from the perspective of what human flourishing requires as such, not from a specialized perspective such as what an investor needs to do in order to create wealth or what a parent needs to do to raise her children well. Obviously, answers to ethical questions will inform answers to these less fundamental questions, but such specific applications are not in the province of ethics as I am considering it here.

[8] While this applies to all values, in general in this chapter I will be focusing on moral or ethical values, as defined above.

[9] We can understand this simply as: what justifies my value-system/system of principles over others? I take the basic issue of objectivity to be that the standards of ethics are not simply justified by my current interests desires/values —such a subjectivism would provide no guidance at all. Moreover, in answering these questions from a foundationalist perspective, I also will provide a clearer answer to the kind of contrast being presented to anti-foundationalist views such as McDowell's, which would (on my interpretation) regard the second question as ill-founded.

Answering the first question requires understanding ethical values from the perspective of how they are to be achieved and maintained, and what it means practically to live a life of coordinated values. This, the eudaimonist project, is the level at which Aristotle's project in the *Nicomachean Ethics* primarily engages the reader.[10] This is the perspective I will take here, as I discuss the formal constraints on *eudaimonia*: these are conceptual constraints under which human value-pursuit can be understood coherently and sets the stage for practical determination. In other words, on the view I defend here, organizing one's life around the pursuit of *eudaimonia* is the only rational way to pursue values. Again, as I suggested above, ethics from this perspective serves as an artifact, a constructed conceptual perspective from which one can address the functional requirements of the human *bios*. As an analogy, consider that we could not understand how to build a house well if we did not understand the goal in mind, nor the context that provides the need for building a house, nor what kinds of steps needed or could be taken in order to pursue that goal. All of these need to be explicitly delineated in a clear and organized way in order to achieve the goal of building the house. This is what the framework of eudaimonism offers: a context of ethical reflection in which the requirements of the human *bios* are integrated with practical guidance and value-pursuit.

Answering the second question requires seeing how the human *bios* is made possible and sustained by certain activities and methods and not by others. I will not answer this in this chapter, but this is the perspective I take in defending production as a central

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[10] I do not say exclusively, because I think at various Aristotle is attempting to give a deeper theoretical grounding of *eudaimonia*; however again Aristotle does not seem concerned with providing an objective grounding that appeals to facts beyond the starting point of what is observed to be fine and noble.

constituent of *eudaimonia* in Chapter IV. Building upon this framework, in Chapter V, I aim to give an account of the ethical perspective on that issue from the perspective of production's practical relevance for achieving happiness, and how it suggests the inclusion of a corresponding virtue of creativity.

We can now return to the issues with which began in the introduction, and investigate how the *bios* view informs ethical reflection, taken on its own terms (that is, taking its biological basis now for granted) - that which concerns the fundamental values guiding choice and action. This will serve as a segue to the remainder of this chapter, in which I argue that eudaimonism is the only viable framework for creating a system of ends and principles of action that properly relate to the human *bios* - by encompassing the three features of ultimacy, self-directedness, and self-sustenance.

A. Eudaimonia as the Ultimate End

On the view I have been developing, in reflecting on how to live well, we start from considerations of the nature of life and action. We saw in the previous chapter that life is essentially a self-sustaining organization of differentiated activity, and that in particular cases these together constitute the *bios* of a particular organism - the *bios* of an albatross includes the way it hunts for fish, the way and places it chooses its nesting grounds, its particular manner of digestion, etc. In the case of human beings, our *bios* requires us to engage in deliberation, reflection, planning, and conceptualization of our val-

ues and ends (i.e., engaging our practical rationality) if we are to live well. Therefore, ethical reflection requires an exploration of the basic nature of our practical rationality. The view I will outline here is a eudaimonistic view, in the sense that I shall argue that living well consists in pursuing a single, ultimate end, which generates the explanatory and normative justification of our actions and choices - i.e., that explains and normatively grounds practical rationality. While I cannot offer a full defense of eudaimonism here, I wish to sketch out the basic elements as I understand them, using Aristotle as a starting point, and hope to show that they offer a powerful way of understanding human life and action, and therefore an excellent starting point for thinking about living well. I shall also describe an under-explored aspect of *eudaimonia*, self-sustainability, that I think is needed for the structure and development of the view to make sense of our nature.[11]

In Book I of the *Nicomachean Ethics*, Aristotle reflects on the fundamental nature of the human good - the highest good or end of human action.[12] His purpose at the outset is twofold: first, he aims to show that we have a single ultimate end that we share as human beings, and outline the formal constraints on this end, and second, what he takes to be the basic characterization of this ultimate end (*eudaimonia*). The resulting view is a form of *eudaimonism*, which is a view both about the nature of practical rationality and the nature of happiness.

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[11] In this respect, I shall depart, perhaps radically, from Aristotle's views, and that of Neo-Aristotelians.

[12] 1095a14-20.

This first argument is made by proceeding with observations about deliberation and ends in general. Aristotle begins with the view that "every skill and every inquiry, and similarly every action and rational choice, is thought to aim at some good."[13] He proceeds then to give various examples: "…the end of medicine is health, that of shipbuilding, a ship, that of military science, victory, and that of domestic economy, wealth."[14] He further notes that in these end-structures[15] are ends that are for the sake of others, and some that include others. As Gavin Lawrence puts it, "the good in some object or systematic area or realm is the end, or *that for the sake of which* the other things in the object or area are…[and] is thus the principle of being and of organization of everything else in that object or area: that something belongs in the area, and what place it then has, are settled by relation to its end."[16] So the end-structures of these activities - productive activities, practical activities, and theoretical activities - determines what counts as being part of that activity, why they are important, and how they are to be organized. So for instance we understand why a knowledge and application of constructing wooden planks is part of ship-building (of wooden ships) and why principles of buoyancy are relevant in considering a ship's storage capacity, and so on, all of these being for the sake of successfully building a ship.

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[13] *NE* 1094a.

[14] *Ibid*.

[15] By this I mean simply that certain activities are inherently teleological; they can only be understood and pursuit in light of an end.

[16] Lawrence, "Human Good and Human Function," 40.

In developing these points, Aristotle argues that these ends in fact must terminate in one (or more) *ultimate* end, and in fact that there can only be one ultimate end for a human life.[17] How does he make this point? He argues that if our ends did not terminate in a ultimate end, they would be part of an unending "chain" of ends, which would be incoherent - an infinite regress - and it would fail to make sense of how those ends arise or how they could possibly be satisfied. Aristotle does not explain this in much detail in the *Nicomachean Ethics,* but there are several good philosophical reasons (consistent with his other views) why he might have thought this. I follow others here in this line of thought, in particular Daniel Russell and Julia Annas, who have helpfully suggested ways of understanding this problem.[18] First, if we are too make sense of our ends, we must make sense of their source or origin - which, as we saw earlier, Aristotle believes to be in other ends (either instrumentally or as part of other ends) for all ends that are not ultimate. If we had multiple ultimate ends, we could not explain or understand how these related to each other or from what they arose; and because of this, any conflicts between them could not be reconciled, and deliberation between them would be impossible. But there is an even deeper reason for thinking that we only have one ultimate end, though Aristotle does not himself argue for it explicitly: that practical rationality is only concerned with the project of having good or rational ends, and therefore there cannot be a

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[17] *NE* 1094a21-1.

[18] Julia Annas, *The Morality of Happiness*, 32-33. Also see Mark LeBar, *The Value of Living Well*, Chapters 1 and 2.

deliberative question about whether pursue a life organized around good ends or not,[19] since the whole project of having ends and deliberating about them depends on having this goal.[20] We perhaps find evidence for this, though not stated in these terms, in the *Eudemian Ethics*, where Aristotle remarks that human beings need to "set up for [themselves] some object for the good life to aim at" "by reference to which [one] will do all [one] does, since not to have one's life organized in view of some end is a sign of great folly."[21] In any case, it is clear that for Aristotle, from the very nature and fact of our deliberation it follows that we have a single ultimate end.[22][23]

Next, Aristotle argues that *eudaimonia* must be this final end - though at this stage in the argument, this claim is meant to be uninformative, since we do not yet know what is needed to attain it, nor in what activity exactly it consists. He seems to ground this

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[19] This is a point made very clearly by Daniel Russell in his book *Happiness for Humans,* Chapter 1.

[20] Of course, to understand how this point would work we also need the function argument's insistence that humans are essentially rational animals at NE 1098a12-18. As Jennifer Whiting has noted, the fact of our essentially rational nature means for Aristotle that he "can appeal to the connection between a thing's essence and the conditions for its survival to argue that any essentially rational agent (whatever his actual goals and desires) has reason to preserve his capacity for rational agency. For remaining what he is essentially is a condition of *his* attaining those goals, or indeed, of *his* receiving any benefits at all." "Aristotle's Function Argument: A Defense." Plausibly, part of preserving this capacity involves pursuing whatever ends turn out to be rational and being motivated by this goal.

[21] *EE* A 2, 1214 b6-14. What is clear here is not necessarily that our lives must literally consist of one activity in order to count as good. Rather, what is important is that a conception of a single final end that organizes the other goods, allows us to "define to ourselves…in which of our possessions the good life consists, and what for men are the conditions of its attainment." Without a single ultimate end, we have no way of adjudicating between different ultimate ends and what it would mean to attain the good life.

[22] This is not meant to be an interpretation of Aristotle's view of why we have a single ultimate end, since, as I noted, he gives very little explanation if any for that view and quickly passes over it. However, he does believe that any deliberation must imply an existing goal or end, and therefore what I have described is a view that is at least consistent with remarks he makes elsewhere. See *NE* 1141b12-14.

[23] This goal, in turn, is the subject or aim of political science, since that science organizes and "employs" the others. *NE* 1094a22-4, 1094b.

claim on an observation about the role it serves in the deliberation of people we find around us:

> …since all knowledge and rational choice seek some good, let us say what we claim to be the aim of…all the good things to be done, what is highest. Most people, I should think, agree about what it is called, since both the masses and the sophisticated people call it happiness, understanding being happy as equivalent to living well and acting well.[24]

Aristotle seems to be making the point that if we look at how people think about eudaimonia or living well (even though they all think it is something different[25]), it occupies precisely the role we would expect the final end of deliberation to play, and yet is (at this level of abstraction) still quite abstract and indeterminate such that there exists plenty of disagreement about it.[26]

Now, even before we begin to consider the substance of what a life characterized by *eudaimonia* would look like, Aristotle adopts a strategy for helping us aim at the right target by laying down some general features of *eudaimonia*. Julia Annas[27] has helpfully characterized this strategy as one of identifying formal constraints on the nature of *eudaimonia*, which can be discovered on the basis of the nature of human beings,[28] or more

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[24] *NE* I.4, 1095a14–20.

[25] *NE* 1094a22-3, 1095b14-17, 23-6.

[26] I owe this interpretation of Aristotle's view at this stage of the *NE* to Daniel Russell.

[27] *Morality of Happiness*, 39.

[28] Or, depending on how one understands Aristolte's methodology, a combination of considered opinions or *endoxa* balanced against his own observations and metaphysical views.

specifically that follow from the nature of end-seeking and practical rationality.[29] These are formal in the sense that they do not give us substantive insight into what a *eudaimōn* life looks like (e.g. what kinds of friends a *eudaimōn* person might have, or how they relate to money-making), but they give us a structural outline of such a life, and thereby give us a baseline from which we can determine what kinds of lives are plausible candidates for *eudaimōn* lives.[30] The best way to understand these constraints, on my view, is that they follow not just from our nature as agents equipped with practical rationality, but more broadly as organisms living a certain *bios* - the formal requirements of *eudaimonia*, insofar as they pertain to living well, must adhere to the requirements of living the human *bios*.[31]

The main two constraints Aristotle considers are *finality*[32] and *self-sufficiency* (*to autarkes*). *Eudaimonia* is complete in the sense that it is "worth choosing for itself and never for the sake of something else."[33] Any genuine values or goods will be therefore

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[29] For example, Mark LeBar, *The Value of Living Well*, Daniel Russell, *Happiness for Humans.* Gavin Lawrence also writes that Aristotle at this stage in the argument "offers an elucidation of [the human] good by specifying it, at least *nominally*, as *eudaimonia*…Aristotle produces a justification even for this nominal specification, again by appeal to formal criteria. The practicable good is unqualifiedly final - an object of choice for itself and never on account of something else. And it is *by-itself-sufficient*." Lawrence, Human Good and Human Function, 45.

[30] Of course, some lives, as it turns out, such as a life based primarily around seeking pleasure, will be quite straightforwardly ruled out by these formal constraints.

[31] This will be particularly relevant in discussing self-sustainability.

[32] Sometimes this is conceptualized as "complete." However, I am taking "complete" here as synonymous with "perfect" or "ultimate" in the sense that *eudaimonia* is never pursued or chosen for the sake of any other thing.

[33] *NE* I.7 1097a.

either be included in it, or a means to attaining it.[34] If *eudaimonia* turned out to be something useful for a further purpose, like physical exercise for the sake of having more energy and avoiding injury, then it would not count as complete. Or, if *eudaimonia* were merely a part of some broader enterprise of mine, such as my job being part of my career, it would similarly fail to be complete — we would then need to inquire into the ultimate end to which *eudaimonia* is merely a contributor. Secondly, *eudaimonia* is *self-sufficient*.[35] In general, this means for Aristotle that a *eudaimon* individual needs nothing more or beyond *eudaimonia*.

Scholars differ on how to understand the self-sufficiency criterion; in particular what its implications are for our relations to others.[36] However we understand the answer, clearly self-sufficiency does not imply living apart from human society and the benefits that living among human beings brings. Since human beings are social or political animals, we need others for the sake of friendship, trade, law, artistic collaboration, and so on. So self-sufficiency *involves* having the resources necessary in order to engage in virtuous activity and its enjoyment. We can see this especially when Aristotle discusses whether a *eudaimōn* man needs friends:

> …people say that those who are blessed and self-sufficient have no need of friends, since they already have the things that are good, and, being self-sufficient, need nothing further.

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[34] This is of course a point of contention among Aristotle scholars, but I hope that my views here do not depend greatly upon one or the other interpretation of Aristotle on the question of whether happiness *includes* all other goods or that it includes some goods and other goods are external to it but are a necessary means to it.

[35] *NE* 1097b6-11, 14-16.

[36] E.B. Cole, "Autarkeia in Aristotle," *University of Dayton Review* 19 35-42, 1988, for instance understands it as a kind of "self-determination."

> But a friend, since he is another self, provides what a person cannot provide by himself; hence the saying, 'When fortune is generous, what need of friends?' But it seems odd, when we assign to the happy person all good things, not to give him friends, who seem to constitute the greatest of external goods.[37]

We can see here that friendship is part of a life that is self-sufficient, precisely *because* it provides a value that one could not provide by oneself. This is an important point, because it means that the self-sufficiency criterion is derived from our nature as a certain kind of animal (i.e., a social animal).

There is of course still a question about how exactly self-sufficiency relates to our dependency on goods; specifically, how we are to understand the idea that self-sufficiency implies *eudaimonia* is "lacking in nothing."[38] My view on this issue, though I am not sure it can be ascribed to Aristotle[39], is that rather we should understand self-sufficiency as implying that any goods or ends chosen or possessed will integrate and contribute to the end of *eudaimonia*, because there are no human needs or rational capacities to be realized that will not fit well into a good life.[40]

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[37] *NE* 1169b3-10.

[38] Mark LeBar has a helpful discussion in his paper "Prichard vs. Plato: Intuition vs. Reflection." He notes there that Plato, Epicurus and the Stoics all had versions of the self-sufficiency criterion and that it is best thought of as a meta-level constraint on ethical theorizing. Ultimately, Aristotle on his view tries to find a balance between the following two notions of self-sufficiency: 1) the ultimate end makes life choice-worthy vs. not living at all, and 2) the ultimate end makes the good life lacking nothing relative to other candidate lives. (18).

[39] Some philosophers, such as Eric Brown, have suggested that Aristotle relies in fact on two separate concepts of self-sufficiency ("Aristotle on the Choice of Lives: Two Concepts of Self-Sufficiency"), where one is more radical and means that nothing is needed outside oneself and another is less radical and includes enlisting the help of others to fulfill one's needs. According to others, such as Richard Lear (*Happy Lives*) and John Cooper ("Plato and Aristotle on 'Finality' and 'Self-Sufficiency'"), argue that self-sufficiency should be understood *in terms of* finality, and that *eudaimonia* is therefore self-sufficient qua final end and is an "organizing principle" (Lear, 52) that renders a life characterized by it lacking in no other goods.

[40] I am indebted to Daniel Russell for this view. Obviously, at this stage, we don't know in detail what needs and rational capacities fit into the good life and how they will do so. But on my view, again, they must make reference to the human *bios*.

To meet these first two conditions, Aristotle argues that *eudaimonia* it involves activity in accordance with reason[41]: this is because a *eudaimōn* life must be of a distinctly *human* form, and thus involve our characteristic way of living, which is rational.[42]

For Aristotle, the

> characteristic activity of a human being [is] a certain kind of life; and if we take this kind of life to be activity of the soul and actions in accordance with reason, and the characteristic activity of the good person to be to carry this out well and nobly, and a characteristic activity to be accomplished well when it is accomplished in accordance with the appropriate virtue; and
> the characteristic activity of the good person to be to carry this out well and nobly, and a characteristic activity to be accomplished well when it is
> accomplished in accordance with the appropriate virtue; then if this is so, the human good turns out to be activity in accordance with virtue, and if there are several virtues,
> in accordance with the best and most complete."[43]

Since our characteristic activity is rational activity, excellent activity for human beings will be excellent rational activity (i.e., virtue). This allows us to better understand the role of the virtues and the tight connection between the virtues and *eudaimonia*. *Eudaimonia* is the activity of living well, and the virtues of character, together with practical wisdom, allow us to be the kind of person that can achieve that end. This is because achieving *eudaimonia* requires the right emotional dispositions, excellence in deliberation and planning, the right motivations and so on. Indeed, a good deal of the *Nicomachean Ethics* deals with explaining in detail how each of the virtues of character, understood as excellent dispositional states, allows us to deal with problems of deliberation and motiva-

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[41] Ultimately, as we shall see in Book 10, *eudaimonia* requires practical wisdom, which is the excellence of deliberation and includes or accompanies all the virtues of character. But at this stage (the function argument component of Book I), we know only that it must be characterized by rational activity. *NE* (1097b22-1098a26)

[42] *NE* I.7 1097b22-1098a20.

[43] *NE* I.7 1098a-1098b.

tion. Finally, Aristotle notes that the virtues are not sufficient by themselves to give us a well-lived life: we also have need of external goods, such as wealth, education, physical health, and so on. Thus, by I.10, Aristotle is able to rhetorically ask, "What is to prevent us, then, from concluding that the happy person is the one who, adequately furnished with external goods, engages in activities in accordance with complete virtue, not for just any period of time but over a complete life?"[44]

i. Self-Sufficiency as Integration

We can perhaps more clearly understand the "self-sufficiency" point by seeing it as the view that our ultimate end is *integrative*. For its to count as a *life*, or an activity that characterizes a life, the life must be unified; the disparate activities and values that make up a good life must somehow make sense together as a whole, and not fundamentally work against each other. I have already addressed the view that *eudaimonia* must be single end, not one among many final ends or a set of irreducibly final ends. In a sense, then, I am repeating myself; however, understanding *eudaimonia* as integrative is important as a way of more clearly characterizing this feature.

This is particularly important if we consider the conscious experience of *eudaimonia*: living well is not merely the fulfillment of a set of external conditions, but the fulfillment and sustenance of a set of values, meaningful to the agent, that can be pursued together. We find an interesting exposition of a similar view in the work of Valerie Tiberius, where well-being is defined as "value-fulfillment." This turns out to be an in-

[44] *NE* 1.10 1101a.

sightful approach to well-being that might serve as a schematic outline for understanding the integrative nature of *eudaimonia*. The view is insightful because it brings together objective and subjective elements of well-being: the notion that the values that constitute our well-being are worth having and rational, but that they derive their status as values equally from the meaning and satisfaction they bring to our lives as a result of our choosing and pursuing them.[45]

For Tiberius, values are "are patterns of relatively robust desires and emotions that we endorse as giving us reasons relevant to planning and evaluating our lives,"[46] which "…form systems of mutual reinforcement and integration that help or hinder their fulfillment."[47] The specific patterns of integration of values can vary widely across different lives. For instance, for some people, romantic relationships might be a more core value than for others. For others, friendship might be of a more central value than romantic relationships. While exercise might be a merely instrumental value for some, for others it might be a core or central value.

The problem with Tiberius' view, and where I depart from her view of values, is that she does not see them as tied to the human *Bios*. Because of this, there is no foundational objective standard for her view, which is instead built upon a loose coherence. This is what enables her to say, for instance, that "… the value-fulfillment theory does not

[45] I find this conception independently plausible and I believe the best way to think about values in a Neo-Aristotelian framework. However, a discussion of the nature of values and different ways they are conceived of in the literature is regrettably outside the scope of the present discussion.

[46] Tiberius, *Well-Being as Value Fulfillment*, 5.

[47] *Ibid*., 6.

constrain which values can be part of a value-fulfilled life in the way that an objective theory would. For example, the value fulfillment theory implies (in contrast to objective theories) that it is at least possible for a Mafioso with a stable set of values that fit his personality to achieve well-being even though his values are morally questionable."[48] However, on my view, there is no reason to make such a concession (and there is no obstacle to incorporating her insight into my view); those values that actually contribute to well-being are those that promote the human *bios*, whereas values that destroy or undermine the human *bios* are detrimental to well-being. The mere fact of the Mafioso's stable endorsement of his own defective values is not sufficient on its own to constitute well-being.[49]

Fortunately, I can take on Tiberius' rich way of understanding values as contributing to an integrated whole without adopting her subjectivism about value systems. This way of thinking of well-being meshes nicely with a view of living well understood first as foremost as a way of living a whole life, rather than a momentary feeling or state that someone might have at any given time. Moreover, it offers us a powerful way to think about the *integrative* quality of eudaimonia that must be present if *eudaimonia* is to be self-sustaining. At the outset of this discussion I mentioned that eudaimonism is a theory not just about the nature of happiness but about practical rationality, and therefore under-

[48] Tiberius, 63.

[49] Obviously, more would need to be said about the ways in which a mafioso fails to instantiate objective human flourishing on my account. I engage this problem at the end of Chapter V, but the remaining remarks in this chapter and the next go a long way towards suggesting my answer to such cases as well. In short, the mafioso's life is neither self-directed or self-sustaining in the right ways; his dependence on and destruction of his victims rules against his way of life as a long-term viable strategy for a human valuer.

standing the nature of *eudaimonia* will help us understand what counts as good deliberation or practical reasoning. And indeed understanding *eudaimonia* as integrative does just that: it gives us a clearer picture of what kind of life can count as a good human life, by showing us that it must be composed of values that can work well together and be pursued and sustained over time.

I have now discussed at length the argument why *eudaimonia*, the goal of ethical reasoning, must be an ultimate end and what this means. I am understanding the "ultimacy" criterion as I laid it out above in a broad way to include both the finality and completeness or self-sufficiency of *eudaimonia*. *Eudaimonia* is both an end that integrates all of our lesser values and ends, and puts a stop to the chain of ends and reasoning. Next, I shall show that *eudaimonia* must be understood as self-directed.

B. Self-Direction

We have now a conception of *eudaimonia* as an ultimate end that is distinctively human. *Eudaimonia* is self-directed (i.e., the product[50] of our self-directed activity), in this context, because our final end can only be a goal for us that makes sense of our ends if it is something that we have deliberately chosen and comes about through us. This is fundamentally true for human beings owing to our nature as agents, and the fact that human values (which I shall discuss shortly), and thus the *eudaimonia* that includes them,

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[50] This does not imply a "product" in the sense of something separable from an activity that aims at it bringing it into existence.

cannot come about *passively*. This means, for example, that *eudaimonia* cannot be simply something that *happens* to us or that we achieve by accident, or that we gain purely through the efforts of others. I will now expand upon these points.

We find the idea of the importance of the self-directedness (though he does not use this terminology) of *eudaimonia* in Aristotle's ethical and political discussions, and so this is naturally an excellent starting point for discussion. In the *Nicomachean Ethics*, Aristotle writes:

> And if it is better to be happy [through effort] than by chance, it is reasonable that happiness should be attained like this. For what is in accordance with nature is by nature as noble as it can be, and so is what is in accordance with skill and every other cause, especially that in accordance with the best cause. To entrust what is greatest and most noble to chance would be quite inappropriate.[51]

And in the *Politics*:

> ..being fortunate must be different from flourishing. For the goods external to the soul come of themselves by chance, but no one is just or temperate by or through chance.[52]

Aristotle is quite clear here, as in other places, that *eudaimonia* cannot be the result of chance or the efforts of others, since the excellence of practical rationality (i.e., virtue) that is part of *eudaimonia* cannot be the result of chance or arise through others. Though it seems that we can acquire many goods by chance that apparently further the human *bios*, such as when for example by chance one inherits a sum of money from an unknown

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[51] *NE* 1099b19-25.

[52] *Politics* 1323b24-29.

relative, the manner in which we achieve and use them is relevant, and has relevance for our overall conception of *eudaimonia*.[53]

I must clarify here that of course human agency occurs along a continuum. At its most basic characterization, human beings are agents insofar as we act with intention. But there is of course a whole range of expression of human agency, from basic intentional physical movements to the products of deliberate choice; I do not have the space here to fully discuss these issues, except insofar as to clarify that by "self-direction" I mean activity that is guided by deliberate choice and therefore is expressive of oneself.[54]

Obviously, human beings are not *merely* agents; we are also beings to whom things happen, and who engage in many activities (perception, sensation, digestion) which occur more or less automatically. These activities, while not expressive of our agency, are in fact crucial to our well-being. So why would we think that *eudaimonia* must be self-directed? To fully answer this point, we must turn to the basic role that rationality plays in our nature.

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[53] Wealth is a useful example because it is clearly only useful for certain ends. So whether it actually contributes to *eudaimonia*, regardless of how it was acquired, depends on how it was used, where it came from, how one thinks about it, and so on.

[54] I agree wholeheartedly with Kieran Setiya that no important normative facts can be derived from the mere fact that humans act intentionally (see *Reasons Without Rationalism*). I use "self-direction," then, to connote what Aristotle describes as "deliberate choice." Moreover, activity being "guided by deliberate choice" does not mean that in each moment that activity is a direct product of deliberation. Very often competent exercise of practical rationality is exercised without deliberation, and in fact ultimately non-deliberative skill must be at the core of practical rationality on pain of regress, as argued by Peter Railton in "Practical Competence and Fluent Agency," 2009. Practical rationality is guided by deliberate choice in the sense that it is subject to revision and review by deliberate choice, or else the indirect product of previous deliberate choice. For example, I may competently exercise my skills in driving, which requires practical rationality, without deliberation. However, these skills are the products of prior deliberate choices and are subject to revision (maybe I notice that I tend to cross on yellow lights often, and exercise conscious deliberation in those situations in the future).

Recall that, for Aristotle, the good of any thing (and what makes it a good instance of its kind) resides in its function.[55] And, as I argued, all functions of living things are related to their particular kind of life or *Bios*. For human beings in particular, to use Aristotle's phrasing, their characteristic kind of life is "an active life of the element that has a rational principle."[56] Consequently, *eudaimonia* will necessarily involve excellent execution of the human function: *eudaimonia* is "an activity or actions of the soul implying a rational principle" performed excellently, i.e., "in accordance with the appropriate excellence (*arete*)."[57] For Aristotle, as we see his view unfold in the later books of the *Nicomachean Ethics*, the activities implying a rational principle include deliberation, choice, reflection, and specification of the final end.[58]

We saw in the previous chapter that there are good reasons to think of functional explanations more generally as crucial for grasping each organism's way of life or *bios*, and consequently its well-being and flourishing. The functions included in a *bios* include not just the important physical parts and features of organisms that keep their bodies intact, but their faculties of consciousness (when those are present), particularly as those pertain to their ability to select and consciously pursue values in their environments. The *bios* of human beings fundamentally depends upon and arises from rational activity un-

[55] *NE* 1097b, 1735.

[56] *NE* 1098a.

[57] *NE* 1098a.

[58] I am following Daniel Russell's understanding of *phronesis* here as the intellectual virtue that (among other things) *specifies* or makes determinate our ends (though it has other tasks as well).

derstood as a form of consciousness, and this is why Aristotle identifies the characteristic human function in this way. We saw in the previous chapter that it generally doesn't make sense to think of a whole organism as having a function, since functions are parts or aspects of a unified whole (which is in part why I focused on *bios*). However, Aristotle is right to point out that human activity is essentially defined by rational activity - that is what makes us what we are, and what makes human life what it is.[59] I have already made this point obliquely a few times. Here, it is worth considering it in greater depth, insofar as it has important implications for the structure of our ethical reasoning. Here, I go beyond Aristotle and apply the framework of the *bios* view to the eudaimonistic structure.

Human rational activity makes our *bios* possible in two ways: it enables and requires us to develop *ourselves* as agents, and secondly it enables and requires us to develop *the external world*.[60] Both of these points require brief elaboration, though the full extent of this view will be made clearer in subsequent chapters.

In order to sustain a human *bios,* human beings must develop ourselves by a cultivation of both our knowledge and our character.

In developing ourselves, human beings must acquire and cultivate the kinds of motivation, affective responsiveness, and non-deliberative agential skills necessary to achieve our ends. Aristotle was no stranger to this point: he saw the virtues as states of

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[59] See Christine Korsgaard, "Aristotle on Function and Virtue," where she points out that the most promising interpretation of this is that our capacity for rationality is a potentiality, which the virtues actualize and perfect.

[60] I follow Mark LeBar in *The Value of Living Well* in characterizing the claim in this way.

our character necessary to achieve *eudaimonia*, because they are needed to act well in light of the range of obstacles and practical problems we face in different spheres of human life. For instance, the virtue of courage allows human beings to respond appropriately to danger or difficulty, and therefore not give up on important values or goals in those situations. We also need knowledge and understanding: this includes emotional intelligence (an understanding and proper habituation of our affective life and that of others) and practical wisdom (the skill of deliberation, planning, and integration of our ends). We cannot merely rely on, as Julia Annas puts it, "knacks" or natural inclinations to feel and respond in certain ways.[61] While a natural benevolence may help one make friends as a child, without further understanding and deepening of emotional sensitivity this will not aid one in more complex situations of adult value-pursuit.

In developing the world, we need to cultivate collaborative relationships with others in fulfilling our social needs for friendship, work, and romance, and we need to produce economic values which we can exchange and share with others. In doing so, we bring our environment into conformity with the requirements of the human *Bios* — e.g., harnessing sources of energy, creating shelter, making food efficiently. None of the values necessary for the human *bios* come ready-made in nature: we cannot simply find houses, cars, computers, art, or friendship and pluck them from trees. Rather, these must be *created*, which requires an exercise of our rational capacity. This is ultimately why production is crucial for the human *bios* - since these acts of creation are productive in the sense that

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[61] See Julia Annas, *Intelligent Virtue*.

they involve a process of thinking to bring into existence a valuable thing (this need not be physical, as in the cases of friendship or medicine). I will not further elaborate on this point, since I develop it in further depth in Chapter IV.

This tight connection between our *bios* and our rational activity supports the view that *eudaimonia* is self-directed, since our rational activity is itself inherently a self-directed activity. The cultivation of virtue and skill, the application of practical creativity, the acquisition of and integration of knowledge, and the cultivation of relationships all must be self-directed, because they require reflection and thought about one's particular circumstances and the individual effort needed to achieve and sustain them over a lifetime. In other words, the processes of thinking that guide one's life are activities centrally directed by individual choice and effort.

I have now shown that *eudaimonia* is properly understood as an ultimate end, and that it consists of a self-directed activity (i.e., living in a self-directed way). What remains to be shown is how, or in what sense, we should understand *eudaimonia* as self-sustaining, and how this follows from the understanding of the human *Bios*.

III. Self-Sustenance

My central departure from Aristotle,[62] and from the Neo-Aristotelian literature upon which I have been relying so far, is that to truly make sense of *eudaimonia* as the organizing end in ethics, it must answer to our nature as living organisms, and thus involve self-sustenance.[63] I call this constraint on *eudaimonia* the *self-sustaining* constraint. *Eudaimonia* is *self-sustaining*, on my view, in the sense that the primary or central way that the goods in that life are maintained is through the continual self-directed rational action of the agent who possesses those goods: in short, a flourishing life includes the elements that sustain the human *bios*.[64] Why should we accept this condition as a formal constraint? First, notice that logically, this constraint is continuous with the constraints I have discussed until this point. Recall that for Aristotle, the other formal constraints (finality, self-sufficiency, self-direction) relate to features of our nature as human animals: our political or social nature and our rational nature. Similarly, the self-sustaining constraint makes the best sense of understanding *eudaimonia* as a *human* good, where our being human is a matter of our being an organism that partakes in a certain way of life: i.e., precisely the considerations from the preceding chapter in which I argued that living

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[62] My ultimate goal here is not quite to defend once and for all an interpretation of Aristotle on this point. Rather, I wish to consider what reflection on his remarks about the formal constraints or conditions of eudaimonia can show us in reflecting on the foundations of a Neo-Aristotelian approach to ethics.

[63] I.e., rather than its constituting an activity aimed at the noble or the fine.

[64] Obviously, stated this way, it may seem obvious or uncontroversial. But notice that Aristotle does not include this condition, and in fact is happy to accept that the activities that sustain *eudaimonia* will often (or always?) come from activities external to the agent, such as the work of slaves or farmers (who themselves are unable to engage in *eudaimōn* activity). See Chapter III for a fuller discussion of Aristotle's view.

things must be understood by reference to their *bios*. I will now expand on my explanation of this constraint, since unlike the others, it has no discussion in the Neo-Aristotelian literature.

A. Life as Self-Sustaining

If *eudaimonia* is a kind of *life* or quality of a life[65], then it must answer to the basic constraints and conditions regulating what life is and how it exists - for whatever *eudaimonia* turns out to be, it will turn out to be some activity or end state that living beings (namely, human beings) can engage in. At the very least, it cannot be a property that fundamentally is at odds or undermines the requirements of staying alive; otherwise, its pursuit would be self-defeating and self-destructive, and contrary to our nature. However, I want to make an even stronger claim: since life is essentially a self-sustaining process (as I argued in the previous chapter) all the (functional) activities of living organisms have significance for this process of self-sustenance. In other words, all the activities of living organisms either promote or detract from this process - the process of ongoing functional activity contributing to a self-maintaining organization.[66] It follows from this that if *eu-*

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[65] Quality here understood in the broadest possible sense, to include for example "being possessed by a life." I mean this in a descriptive sense, as a life being characterized by a certain kind of activity.

[66] Obviously, many activities may have very little discernible impact on an organism's life. But even activities that may seem comparatively mundane (e.g. a bird selecting to rest on *this* tree versus *that* tree) can be viewed as instances or exercises of capacities that are in general essential for that organism's way of life. This, in fact, is why the concept of 'function' is centrally important, because we can typically view activities from a wider perspective of an exercise of basic capacities. More generally, to see this point it's important to understand it on the level of activity types, not tokens (since it is activity types, and functional capacities, that are the perspective from which life-significance can be understood).

daimonia is the proper final end of a human life (from an ethical perspective), then it must be self-sustaining: it must follow from, or consist in, the self-directed activities of a human being that *sustain* a human way of life or *bios*. I will explain these claims in what follows.

B. Human Self-Sustenance

I have stated in broad outline *why* I believe *eudaimonia* is an essentially self-sustaining activity, but I have not still explained exactly what that means. It is easy enough to see, as my examples in the previous chapter illustrated, how this works in the non-human cases: the humpback whale's functional humpback-whale-activities are organized around the maintenance of its whale *Bios*: e.g., migration to be able to continually find food and mates, cooperative feeding using bubbles, ritual fighting as part of courtship etc.

What would self-sustenance imply in the human case? To answer, we need to examine what the human *bios* is, and I follow other Neo-Aristotelians in finding the most basic characterization of this in our rational activity, as I suggested at the outset of this chapter.[67] Let us assume that the human *bios* involves friendship as a crucial functional component. In other words, a successful instance of the human bios is one that involves having, choosing, and maintaining friendships with other humans. So, assuming the human *bios* involves friendship (considered in this broad sense), then the activity of *eudai-*

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[67] I take it that there are other aspects of human life that we take as central, such as our sociality; I group this under rational activity since our sociality is properly engaged pursued in a rational way, that is for reasons and by choice. This is precisely part of the framework we operate from when we judge coercive social relations, such as slavery, as wrong and inhumane.

monia must include the activities (whatever they are) by which those friendships are formed and maintained.[68] These may include, for instance, the activities of cultivating intimacy with others, learning and practicing effective communication, working to meet others who may share ones interests and/or values, etc. The human *bios* also involves, like it also does for all organisms, an activity of nutritive sustenance through which the particular food and nutrients needed for basic physical and mental functioning and energy. So, the activity of *eudaimonia* must involve those activities that are necessary for that activity to take place, such as choosing and practicing a proper diet and exercise, identifying specific physical ailments that one may have, seeking medical treatment when possible and appropriate, etc. Most fundamentally, the human *bios* involves self-directed rational activity (as I argued in the previous section), and so *eudaimonia* must include the activities necessary to sustain that activity, such as by sustaining the motivation, capacity, and emotional harmony that it requires. This self-directed rational activity I understand as virtuous activity. For any organism, the particular values it needs for its *bios* - its particular social interactions and food, for instance - must be organized and selected by some

[68] Thanks to Gregory Salmieri for this helpful formulation. Obviously, friendships may be formed in various ways specific to the nature of the friendship in question. But there is a limited set of a ways in which they can be formed that actually allows them to flourish and be maintained. For example, a friendship on the basis of superficial characteristics may be difficult or even detrimental to maintain over time compared to a friendship based on deeper aspects of character.

capacity.[69] So, for instance, through perception, drives, and instincts, the consciousness of a deer will guide its selection of which food is safe (e.g., which plants), which mates to choose, when to move to a new area etc. The same is true of human beings, except that the values needed for the human *bios* - the functioning of our capacity to reason, friendship, emotional harmony, inspiration and motivation to pursue goals, shelter and comfort, physical fitness, and so on and so forth - are more complex and varied. The relevant capacity in the human case is of course our rational capacity itself - this is what makes all of these values possible, since humans have no drives, or instincts or automatic behaviors that will guarantee their realization. So, to suggest that *eudaimonia* essentially involves self-sustenance means that the human rational capacity must be exercised in the formation and maintenance of the elements of the human *bios*. Because they follow from the exercise of rational capacity, the elements sustaining the human *bios* include values that are matters of deliberate choice - the choice of a career, the choice of friends, of a partner, of a mode of diet and exercise, and so on, and what core values and virtues enable one to choose those properly and achieve them over a lifetime. In a complex society, where one's material sustenance is largely made possible through trade and collaboration, this

[69] I mean by this that all organisms have some organized, integrated way of pursuing their *bios*. This is simply another perspective on what it is or how it is that organisms can have a *bios*: since a *bios* captures the sense in which their various activities and functional capacities are integrated and work together. Clearly, in organisms there is often a "division of labor" within a *bios*. For example, bees have a unique division of labor that explains significant morphological and behavioral characteristics between, e.g., worker bees and queen bees. More commonly sexually reproductive organisms have a division of labor between sexes in terms of childrearing, hunting, etc. In all such cases it may be that the "selecting capacity" of one unit of the division of labor (the female lioness hunting gazelles) provides the values needed for another unit of the division of labor (the male lion protecting the pride's territory). Thanks to Greg Salmieri for bringing this point to my attention.

obviously does not mean self-isolation or subsistence (rather, much the opposite): it means instead that one sustain oneself through creating values (material and spiritual) that one can trade with others who have done the same. The basic metaphysical equation of sustenance does not change in the context of rational trade (i.e., providing the objects being created to trade are actual values for the human *bios*) - the chain of rational activity to sustenance is merely made more complex by adding additional links. This is in contrast to, e.g., exploitation or theft, whereby one appropriates the material values of others in a way that is destructive to the human *bios* and therefore not self-sustaining.[70]

Recall my discussion at the opening of this chapter of core moral values such as our capacity for reasoning, self-esteem, and purposefulness. These are values without which no human can survive as a rational valuer: they are necessary for the human *bios*. Taken, together, when achieved, they can be understood as the core values necessary for human flourishing: when they are achieved together in an excellent way, excluding tragic circumstances, one flourishes.[71] We can helpfully understand how these claims are justified by measuring the impact of these values (or their lack) along two primary dimensions (which I will use later in my defense of creativity as a virtue and production as a central

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[70] What is key to seeing how theft is not self-sustenance is that the actual material values one appropriates in theft are not produced by the rational activity of the thief in any meaningful sense. Moreover, such expropriation (to the extent it happens) destroys the victim's capacity for producing values and engaging in rational activity, besides the obvious destructive effect it has on actual human producers. From this dual perspective, the link between one's activity and one's sustenance is not only broken but aims at self-destruction. I expand on this view further in Chapter V.

[71] By tragic circumstances I have in mind here unforeseen physical ailments that are utterly ruinous, tragic accidents, or tragic circumstances such as life in a totalitarian dictatorship. I do not take the position that one's flourishing is impervious to such events, but these are not the normal circumstances in which eudiamonistic reflection is taking place, and are not my focus.

constituent of *eudaimonia*): material requirements and psychological requirements.[72] By "material" I mean what is required to keep ourselves physically intact, secure, and energized to live a human life. By "psychological" I mean what is required to consistently and reliably think clearly and gain knowledge, experience pleasure and satisfaction (rather than pain or suffering), motivation (rather than disengagement, depression, or listlessness), and connectedness to others (through shared communication and collaboration). Importantly, I take these as ways of *measuring* the core human values of reasoning, self-esteem, and purposefulness, but not necessarily equivalent to the values themselves. This is an important distinction to emphasize, as the *Bios* framework does not serve to *reduce* in an eliminative way human functioning to basic psychological and material states, but rather to integrate these with what can more clearly be understood to be values and activities in which humans engage —the specific careers, friends, objects, etc. that we pursue and enjoy in our lives. It is using these measurements that I will show, by way of illustration, production to be a central constituent of *eudaimonia*.

What does this conception of *eudaimonia* have to say about the virtues? Understood as principles of action and choice,[73] virtues can be understood as artifacts of human

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[72] I understand that the literature on well-being involves numerous controversies, and that some perspectives may take issue with my proposed indicators or measurements here. However, these as described are quite familiar and uncontroversial in psychological and biological literature (see Well-being: towards an integration of psychology, neurobiology and social science. Huppert, F. A., & Baylis, N. (2004). *Philosophical transactions of the Royal Society of London. Series B, Biological sciences, 359* (1449), 1447-1451). Moreover, I am importantly *not*, as Michael Bishop rightfully criticizes some Aristotelians for doing, merely stipulating that virtues (however described) are constituents of well-being (see his *The Good Life*).

[73] Whether one considers them as dispositions of character or principles of action matters little for my purposes here. I agree that it is important to see virtues as dispositions of character, that relate to both emotional soundness (to use Daniel Russell's term in *Happiness for Humans*) as well as practical wisdom, but in this specific context it is more useful to understand them as principles. I believe this

rationality (principles that we can identify and apply) that enable us to achieve and sustain these core moral values (as they apply in our specific, individual lives). From that perspective, for instance, integrity is a virtue just in case it plays a necessary role in sustaining one or more of the core moral values. Thus, for instance, if acting with integrity is necessary to achieve the value of self-esteem or reason in one's life, then that will qualify it as a virtue. It is in this sense that the objectivity of my account of *eudaimonia* (grounded in the human *Bios*) extends to the conceptions of the virtues. For example, if a putative virtue within a cultural framework is presented for consideration, such as "honor," we can appeal beyond our ethical upbringing and outlook we bring to bear in evaluating it and determine whether honor in fact promotes the core human values or not. Consider, for instance, just such a putative virtue, and the view that honor demands that one challenge others to lethal duels when insulted. How does the *bios* view illustrate the mistake in this view?

Now, recall that the application of the *bios* standard requires us to not merely identify concrete activities but activities as they pertain to human functions that are components of a rational way of life. So, a determination on whether honor could be a virtue requires seeing how it would fit in (or not) into the human *bios* considered as a whole. Arguably, we can show, by demonstrating historically in comparisons of societies, or a contemporary survey of existing societies, that societies based on traditional honor codes suffer from unnecessary ostracization and violence compared to societies where honor is less of a central guiding value. In general, violence is inimical to and incompatible with

rational conflict resolution, and inhibits living through rational deliberation and cooperation. Similarly, from observing the effects of such a conception of honor within individual lives, we can see its destructive force. Ostracizing others due to perceived insults is also (in traditional honor systems) often a perpetuation of injustice and an insufficiently rational judgment of facts and choices in situations, such as when a family ostracizes a young girl for engaging in sexual activity out of wedlock. Among other things, there is no prima facie justification for such punishments owing to a voluntary joint pursuit of romantic love. The more humans can resolve interpersonal conflicts through mediation, discussion, and collaboration, the more they are able to jointly advance knowledge and social connectedness. This response does not presuppose an ethical outlook in the sense that it cannot be traced to an objective foundation, since I have already shown that it is rational activity that defines and promotes the human *bios*.

To use another brief example, we can understand the virtue of honesty from the perspective of its role in making self-esteem possible and sustained, insofar as a firm adherence to reality and one's sincere view of the world enhances one's ability to organize one's values purposefully and cultivate a sense of competence that is crucial to self-esteem. Unfortunately, the examination of each virtue in the "traditional list" (as Hursthouse calls it) is beyond the scope of this work. However, what I have illustrated here (albeit briefly) suggests that understanding *eudaimonia* as self-sustaining enables a deeper perspective on some of the character traits that are already widely recognized as virtues. In any case, I will focus the bulk of my attention in this work on just one moral

value — production — and what I take to be its corresponding virtue — creativity. These are the subjects of chapters IV and V, in which I shall argue that a life centered around productive activity (and the corresponding virtue of creativity) best fulfills the self-sustaining condition, as well as the other conditions that have been laid down above. In other words, on my view, only a life centered around productive activity can count as flourishing.

In this section, I argued that *eudaimonia* must be understood as self-sustaining. This is because life is self-sustaining (and, *a fortiori*, the human way of life is), and, since ethical values and principles have functional significance for living, *eudaimonia* as the organizing end of ethics must answer to the basic characteristics of the human *Bios*. This self-sustenance means that a flourishing human life must include the activities necessary to sustain that activity, such as by sustaining the motivation, capacity, and emotional harmony that it requires, in addition to the physical requirements of that activity.

IV. Clarifications

To sum up, I have defended the idea that eudaimonism - the framework of understanding how to organize our lives to achieve happiness - is the best framework for answering the questions that ethical reflection gives rise to. To make sense of the the foundations of human flourishing that I examined in Chapter I, *eudaimonia* must be understood as ultimate, self-directed, and self-sustaining. I have argued that *eudaimonia* can

and must have these features, and I will use these points to show why production and its corresponding virtue must place a central role in a good human life.

We discover that life is self-sustaining by seeing that the (essentially) functional nature of the capacities and activities of living things are so by their contribution to the differentiated self-maintaining organizations, which are elements of the *bios* of that organism. All the activities of organisms, insofar as they are relate to functional capacities, have significance for their *bios*. Since *eudaimonia* is the ultimate or final *human* good, and humans are necessarily living things, it follows that the activity characterized by *eudaimonia* is essentially self-sustaining activity: the activity of sustaining the human *bios*. Again, since this view departs quite significantly from those usually defended in the Neo-Aristotelian literature; therefore, some further clarifying remarks are in order.

What does it mean to say that the activities which constitute *eudaimonia* sustain the human *bios*? Recall that at this stage of reasoning, we are considering *eudaimonia* only formally or structurally and therefore prior to substantive comparisons of what kinds of lives or ends might constitute *eudaimonia*. We might wonder, even if we accept that *eudaimonia* is pursued by humans that live by a certain *bios*, why this final end could not be such that it *partially* promotes the human *bios* but partly hinders it. On such a suggestion, for instance, it could be that we cannot rule out at this stage a *eudaimōn* life having many ends and activities that promote the sustenance of the individual living it and also many ends and activities that reduce, shorten, or negatively impact the self-sustenance of that individual. For instance, could not a virtuous person choose to live a life in a way,

that, for instance, puts his own life at stake in the pursuit of worthwhile goals? Here I recall to mind John Williams' rendering of the first Roman Emperor Augustus (in the book by the same name): at the crucial moment in the beginning of the narrative, we find the boy Gaius Octavius (prior to his rise as Augustus) in Apollonia, just recently having learned that his uncle Julius Caesar has been murdered. He faces the choice to flee (as his advisors recommend) or to go to Rome and attempt to unite and reestablish stability in the Republic. For him, this was the nobler and more courageous choice, the one that made best sense of his ends and values, and was most consistent with the kind of person he wanted to be. But did he not greatly risk his life (and hence his self-sustenance) by choosing this? Of course, he could have died in battle, and we might rightly say that his life was not a happy one if he had died so young. But part of what it is to sustain one's *eudaimonia* is to keep alive one's virtue and one's integrity to those values that give one's life meaning. Hiding in Macedonia as the conspiring senators relish in their overthrow of his uncle has no or little value to Octavian - that is not a life that would be *his* in an important sense. Even were he to die upon returning to Rome, it would be *his* life that is ending - as all lives ultimately must end - a life oriented around pursuing and maintaining the values that made his life worth living to him.[74]

In addition, we must remember that the standard of the human *Bios*, as I explained in the previous chapter, is not a threshold standard. It is aspirational; and that means there

[74] Socrates, at the end of the *Gorgias*, expresses just the same sentiment when he explains to his interlocutors that life is only worth living under conditions that one can rationally endorse: "I desire only to know the truth, and to live as well as I can, and, when I die, to die as well as I can."

is not justifiable "threshold" at which one might say "this life has now met the threshold for flourishing, so no further life-promoting activity is required." Rather, the standard is open-ended and on a continuum. But that means that a *eudaimōn* life, a life guided by such a standard, continually involves aiming at the greatest amount of flourishing achievable.[75]

Can it be that *eudaimonia* has self-sustaining components, but is not *essentially* or centrally so? Perhaps, for instance, to consider Aristotle's own view, if a *eudaimōn* life is a life of philosophical contemplation, it need not be essentially based around self-sustenance: the philosopher's life may be sustained by the physical labor of others (whether provided by inheritance or exploitation), who provide materials for her existence. In that case, perhaps a minimal activity of directing others to give one the necessities of life (such as food, shelter, and so on) is necessary on occasion to engage in contemplation, which is not itself an activity of self-sustenance. Obviously some self-sustaining components remain: the philosopher must eat the food and use the shelter being provided for him. But the contemplation that characterizes his life in no way contributes to his material sustenance: he does it for his own sake and it creates no economic value he could use to trade with others.

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[75] I shall return to this point at the end of the dissertation, since I think it is part of a recurring theme of objections to Neo-Aristotelian eudaimonism. However, it is worth noting that my argument would nevertheless be quite powerful even if the limited interpretation of "self-sustaining" that the objection suggests were admitted; for even on that view, since life is essentially or fundamentally a self-sustaining process, *eudaimonia* would at least dominantly or centrally be self-sustaining.

For this view to get off the ground, it seems that at least one of the following possible views would have to be defensible: i) life is not essentially a self-sustaining process, ii) the human *bios* is not in fact an instance of life, or iii) *eudaimonia* is not based exclusively on considerations about the human *bios*. I have argued against i) in the previous chapter (and to some extent earlier in this chapter). Perhaps ii) can be defended on the grounds that the human *bios* is something "over and above" the phenomenon of life as it refers to other organisms. However, this view would then no longer be continuous with biology (in the sense relevant for ethical naturalism) as it would suppose that some discontinuous feature of human beings changes the fundamental nature of life in human beings, such that it is *not* essentially self-sustaining. I have already explained the sense in which I do agree that human nature is discontinuous with the nature of other organisms; this discontinuity does not extend to the fact that functional capacities are elements of a *bios*, a self-sustaining way of life. Of course, one could simply deny that that ethics needs to be continuous with biology in any sense. However, ultimately this would amount to an abandonment of the Neo-Aristotelian ethical project (as I conceive it), and therefore fully addressing it is beyond the scope of this project.[76] Again, however, as I argued in the opening chapter concerning functions and the nature of life, there is no good reason to suppose that human life is not self-sustaining in the way that the lives of horses, amoebas, and ferns are. And the origin of human valuing and activity in our way of life from a bio-

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[76] However, I hope to show, by way of contrast, that the view I develop in this work is very powerful and well worth taking seriously.

logical perspective suggests that it needs to play some central role in the project of living well. What about iii)? Again, this view would threaten the continuity of biology and ethics. Worse, perhaps, it would threaten the conception of *eudaimonia* as the single ultimate end, since in that case we would have normative considerations that arise from the human *bios* and normative considerations that arise from other sources. If *eudaimonia* has multiple origins of its normative force, and these can come into conflict, this threatens the possibility of a coherent Neo-Aristotelian ethics at all, and again points to the abandonment of Neo-Aristotelianism. The objection that considerations other than the human *bios* are relevant for ethics, is, in that sense, also beyond the scope of this project and can only be briefly responded to here.

The full vindication of this argument, and the response to this last objection, will, in a certain sense, come later; I hope to show through my view that production is a central constitutive component of *eudaimonia* that we can make better sense of why and how *eudaimonia* is and must be self-sustaining. From that perspective, the argument runs in multiple directions: we can get to a view of production's importance from understanding the nature of life and the foundations of ethics, and we can integrate our existing sense that productive activity is important to us and our lives by reconciling it with its ethical foundations. In doing so, I reconcile and integrate my views with recent trends in psychological literature, as well as showing how my account of creativity as a virtue integrates with other virtues that are already accepted. At any rate, I am working at a broad level of sketching out what a good human life will look like. To say that a good live must be the

final goal of our ends, self-sufficient, self-directed, integrative, and essentially self-sustaining is a highly abstract and relatively unsubstantial. In the fourth chapter, I will examine what I take to be the best candidate for a substantive view of *eudaimonia* that fits the requirements we have laid out: a life centered around productive activity. I aim to show that this kind of life is the one that human beings should strive for, because it answers best to our nature as rational beings. But first, I wish to embark on a brief detour, and return to Aristotle's own conclusions following his reflections on *eudaimonia*. Ultimately, he argued for the view that a life of contemplation is the best candidate for a *eudaimon* life. He argued that a life of productive activity could not be *eudaimōn*. Since that is precisely what I shall argue, it is worth asking: why did he reject the life of productive activity? This will be the topic of the next chapter.

III. Aristotle's Demotion of the Productive Life

We saw in the last chapter that a eudaimonistic framework offers a powerful way for thinking about how to live well. In this framework as I have described it, our practical reasoning guides us towards our ultimate end of living a self-directed, self-sustaining life. A well-lived life is self-sustaining in that a central constituent of *eudaimonia* is activity that allows the conditions for *eudaimonia* to be continually maintained and preserved. On my view, this means (as I will argue in the next chapter) that the activity of production is a central constituent of *eudaimonia*. Of course, Aristotle himself does *not* indicate that *eudaimonia* has a "self-sustaining" condition, and indeed this is crucially important for the lives he considers as plausible candidates for *eudaimonia*.

Before presenting my own view of what kind of life this formal characterization leads us to, I first explore Aristotle's view of productive thought and its perfected form in craft (*technē*). I show why Aristotle ultimately deems productive activity (activity aimed at the creation of objects or instrumental goods) to be inherently inferior to practical activity (activity that aim at nothing beyond themselves), which sets up his view to show that a life of productive activity (for instance, the life of a craftsman) is inferior to a life of virtuous activity - a *eudaimon* life.

I aim to show that Aristotle's view of a productive life as inferior can be rejected for two reasons. First, Aristotle's distinction between practical and productive activity, which forms part of his reasoning for demoting the latter, is not well-founded: productive

activity is inevitably an instance of practical activity, and there is no reason to demote the former.[1] If instead we see productive activity as a form or species of practical activity, productive activity can be integrated into the activity of virtue. Secondly, we need not accept Aristotle's view that the best life is based around pursuing activities that have no relation to external products. What Aristotle seems to be really concerned with is the preservation of the self-directed character of a life; and a life of productive activity can have this feature. In this sense, Aristotle makes a crucial insight: there is an important sense in which the activities that make up our lives should be pursued for their own sake if we are to live well - this is precisely what leads him to defend a life of practical excellence. What Aristotle fails to see is that productive activity can meet this criterion.[2]

I. Productive Activity vs. Practical Activity

Aristotle is very clear throughout the *Nicomachean Ethics* that he sees productive activities and practical activities as distinct. First, productive activities aim at an object outside themselves, for instance when a shoemaker makes a shoe, or a shipbuilder builds

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[1] I am unsure whether Aristotle's view commits him to the idea that productive activity is *always* practical activity; I am inclined to think that it is, but I recognize that in several places Aristotle seems quite keen to make clear that he views them as distinct activities. According to some commentators, such as T. Angier, *Technē in Aristotle's Ethics: Crafting the Moral Life* (Continuum, 2010), 36-58, "productive and practical" are two modes of evaluation of activities. So on that view all productive activities are practical, but they can be evaluated with regard to their productive end, or as an instance of human action.

[2] It is difficult to say for sure whether it is due to Aristotle's own views and prejudices against productive activity that productive and creativity is so little discussed in the Neo-Aristotelian literature, as other commentators such as Andrea Veltman (*Meaningful Work*) have noticed. In any case, it is worth bringing up and understanding where his disregard for productive activity comes from, insofar as the goal of any Neo-Aristotelian project should be to preserve the best elements of Aristotle and excise the mistakes (e.g., his endorsement of slavery), where possible. Thus, my aim is not to entirely discard Aristotle's view of productive activity: his concept of *technē* is quite helpful for understanding the perfected form of productive activity in the sense I wish to examine (this will be of greater focus on the subsequent chapter).

a ship. These activities only make sense, and are only undertaken, in light of the product: it is *because* these actions aim at these things, that they are primarily sought for or valuable solely for their products.[3] Practical activities, on the other hand, properly understood, aim at nothing beyond themselves - to the extent that they have a goal, it is only a relationship of constitution, such as if a warrior acts bravely by having the goal of defending the city - in this case, the defending of the city *just is* what is brave in his circumstances. To take another example, proper household management (e.g., financial, social) for Aristotle has no object beyond itself at which it aims.

Secondly, productive thought has no power to initiate motivation or action. This means that all productive activities must be undertaken due to some external demand, end, or choice. We see this in VI.2:

> Mere thought, however, moves nothing; it must be goal-directed and practical. Such thought governs productive thought as well, in that everyone who produces aims at some goal, and the product is not the goal without qualification, but only relative to something, and instrumental to something; for the goal without qualification is what is done, because acting well is the goal, and the object of desire.[4]

So, any particular productive activity, such as building a house, must have its origin (*archē*) some desire or goal separate from the building of the house itself (i.e., no one builds houses for the sake of "just building"). In the case of a house, it may be that one builds a house to shelter oneself, or that one builds a house in exchange for money, as a

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[3] *NE* I.1 1094a.

[4] *NE* VI.2 1139a34-1135b1.

service. I take it that Aristotle means by "mere" thought the idea that even if one understands, say, the craft of building, that thinking has no relevance or action-initiating power for oneself without that thought being connected to a practical goal. Jozef Müller has helpfully clarified how this shows us an illuminating distinction between practical and productive thought in Aristotle, *viz*, that in practical thought starts with a "desire whose object is the very thing that one reasons about how to promote."[5] He argues that "in practical thinking, the *archē* of one's thinking (that which explains why one engaged in a particular episode of thinking), is a desire for the very thing that one reasons about or for the sake of (*heneka tou*). In productive thinking, they come apart: what one reasons about (*heneka tou*) and what gives rise to and explains why one is thinking about it (*archē*) are distinct."[6] Again, if I am building a ship, I reason about how to get from the materials to a completed ship, but the starting point of my reasoning is (for example) a commission from a merchant to build the ship.[7] However, if my practical goal is understood as "expanding my ship-building business," then the building of another ship (i.e. the productive thought it requires) for a merchant is a means to that end, and the desire or starting point was my desire to expand my ship-building business. These might come apart even more clearly, then, if I instructed my employees to engage in the specific productive thought

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[5] Müller, "Practical and Productive Thinking in Aristotle," 9.

[6] *Ibid*., 10.

[7] At least, insofar as one is engaged in the craft of shipbuilding. Obviously, there may be shipbuilding activities that occur as part of a practice, such as perhaps a ship being built as an aesthetic activity for fun. I do not mean to sweep such examples aside, for I think they are important (and part of the case for dismantling Aristotle's distinction), but Aristotle is not concerned with such examples here.

required to build the ship while managing them (though in that case I would still be engaged in the productive activity of management).

This leads us to a third distinction Aristotle lays down between practical activity and productive activity - they have different internal ends, since the ends guiding action and the ends guiding production are separate. Practical activity, when done well, is guided by practical wisdom and its end is the noble or the fine. Productive activity is guided by the internal end of producing an excellent product according to the rules or demands of the particular craft.[8] A helpful example to illustrate this issue is the difference between the layman's view of a craft-end and an expert's view coming apart. Sarah Broadie also offers a helpful examination of this point in the case of health:

> …the end which *defines* the art or science of medicine is the same for all practitioners since all ultimately aim to produce or preserve what everyone values and refers to as 'health', but the end which *figures in the premisses of medical deliberation* differs with experts of different calibre or different training…
> …health as ordinarily conceived is the starting-point of medical deliberation about how to treat a patient, in the sense of being the *raison d'etre* of all steps taken with a view to treatment, including the deliberation; but the technical goal presented in the leading premiss is the starting-point that guides the physician to one conclusion rather than another. The former starting point is what justifies engaging at all in the deliberation with a view to taking whatever action it will indicate; the latter explains why *this* conclusion was reached and *this* action taken.[9]

So, when I go to the doctor because I feel sick, I have the end of health, but this is not the same end as the doctor, since my conception of health is something like "feeling good and being able to function as I normally do," but the technical goal of the doctor is what the doctor operates with - a medical conception of health which will tell him what

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[8] It is worth noting that while Aristotle argues that crafts are concerned with opposites, they are really internally guided by the "positive" of the opposites (medicine with health, building with houses, bridle-making with riding). See *Metaph*. 9.2, 1046b10-12.

[9] Sarah Broadie, *Ethics with Aristotle* 195.

signs to look for, what evidence exists of a condition, what treatments are possible, etc. The internal ends of a craft are specific to that craft, as we see in *Rhetoric* and *Poetics* where Aristotle explains, respectively, the excellent means of persuasion through argument and the excellent structuring and presentation of narrative in poetry. Similarly, shipbuilding has internal ends that determine what materials to use for what kind of ship, how to make it waterproof, etc. Action, by contrast, when done excellently, is guided by virtue and practical wisdom. A temperate person, for example, knows when to avoid too much food and too little in specific circumstances.

Now, since decisions (or desires)[10] are the principles or starting point of action, it follows that productive thought *always* must occur as part of an action or practical activity, since it always follows from decisions or desires which are the starting point of practical activity.[11] This also helps us understand why a "productive life" is not a possible life on offer in the *Ethics (*in the same sense) alongside a life of honor and pleasure, since what is being distinguished there is not different kinds of *activity* but what end is guiding that activity.[12] So the difference between what I have been calling a "productive life" and, say, a life of virtuous activity as described in the *Ethics*, is clearly not that one life is con-

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[10] For Aristotle, rational choice or decision (*prohairesis*) involves something like desire in the modern sense; it makes little difference here for my purposes which term is used supposing that one understands decision to include motivating elements.

[11] And indeed we find this view in the literature, such as by Ackrill in "Aristotle on Action", *Mind* 87, 1978, 595-601 at 595, R Heinaman, "Activity and Praxis in Aristotle", *Proceedings of the Boston Area Colloquium in Philosophy* 12, 1996, 71-111 at 103, and T. Angier, *Technē in Aristotle's Ethics: Crafting the Moral Life*, 36-58. I share Angier's view that productive and practical activities are two modes of evaluation that could apply to the same activity.

[12] So that, presumably, one could be engaged in productive activity *for the sake of* honor or *for the sake of* pleasure.

cerned with action and the other is not (or is insufficiently concerned with action). Moreover, the perspective from which one can plausibly choose how to live is at the outset of the ethics already being constrained by Aristotle's general hierarchy (in which productive sciences are subordinate to practical sciences, which are themselves subordinate to theoretical sciences).[13]

Moreover, this suggests, in my mind, that the activities of a craftsperson can be judged in all cases by the standards of action: we can identify a blacksmith as unjust if he is making weapons for an invading army. This follows from the fact that production always occurs within an action context, and also from Book I, where it is argued that the standards governing any art or action derive from those further ends they are subordinate to.[14] So in speaking of standards of production, such as good or bad carpentry, we can operate in the qualified sense of "from the perspective of carpentry" and from the perspective of "practical activity or rational choice." Sarah Broadie expresses a similar thought: "Regarding the carpenter in the abstract, one can say of this abstract entity that his supreme good is indeed nothing other than the production of excellent cabinet work. But a real craftsman's activity is conditioned by the human supreme good, which is the concern of the statesman (another abstraction). Considered in the light of the contrast between the craftsman's end as a craftsman and his end as a human being, a purely crafts-

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[13] See Monte Johnson, "Aristotle's Architectonic Sciences," 174-5.

[14] *NE* I.1.1094a-b. Aristotle is very clear that all actions and arts fall under wider ends, and that the wider ends make the lesser ends make sense (for the same reason that an infinite chain of ends is impossible, since all ends are conditioned by the single end of the human good).

manly choice of materials is only 'sort of' a rational choice, or rational choice in a qualified sense…"[15] As Broadie says, all craftsmen are *real* craftsmen, whose actions can be judged by the standards of practical activity. We can judge why someone is making a table and with what end in view (e.g., is he doing it for the sake of sustaining a life of pleasure? Or for the sake of developing excellence in his craft?).

What this suggests is that "productive activity" in Aristotle is ultimately a delimited perspective on certain practical activities: they are practical activities considered apart from their practical goals, rather than a separate form of activity themselves. Conversely, we can consider any practical activity "productive" by considering an action without reference to the goal of that activity that makes it an end - for instance, fighting a battle for the polis as an instance of warfare. This suggests that Aristotle has no basis for claiming, as he does in Book I of *NE*, and throughout the *Politics*, that productive activity is inferior to practical activity - a distinction he need to make in order to establish that virtuous activity is necessarily separate from productive activity.[16]

II. Productive Activity for Its Own Sake

What seems to drive Aristotle's hierarchical ordering of practical and productive activity is the view that productive activity is to a degree necessarily slavish: in particular, in craft-activities, one makes objects to fulfill the needs of oneself or others, whereas for

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[15] Broadie, *Ethics with Aristotle*, 182.

[16] *NE* 1096a5-10, *Pol*. III 5, 1278a21-2, *Pol*. VIII 2, 1337bl9-21; cf. VIII 6, 1341b8-15

Aristotle virtuous activities are performed independently of needs. This makes craft-activities (medicine, ship-building, warfare, so on) have an inherently slavish component - they are pursued for the sake of some external goal, which is usually defined by another person (for instance, that someone asks me to build a ship for them or a patient asks a doctor for medicinal help).[17] But even if it not defined by another person's needs, all such activities are for Aristotle instrumental - they are for the sake of money, or for the sake of some kind of social status, or for the sake of survival. It seems to be for this reason that Aristotle believes members of the productive class, who are necessarily primarily preoccupied with such activities, cannot achieve *eudaimonia*.[18] Another way to put this is that Aristotle is concerned that productive activity is simply not self-directed enough for a well-lived life to be centered around it: it is a life in which one's activities are constantly being dictated by one's own needs (which are out of one's own control) or the needs of others.

We can find a helpful summation of this point by Gregory Salmieri:

> There is an inherent slavishness to productive actions (and so in the *technai* and in the lives of the *banausoi*) because the ends that confer value on these actions lie not in the actions themselves but beyond them. Put another way, the productive actions have merely instrumental value, and a life is servile to the extent that it is composed of such actions. Notice that the source of the servility of productive actions so understood is not that the beneficiary of the action is someone other than the agent. A solitary life lead on a desert island would be servile in this sense, even though the agent would be acting only for his own sake. The problem is that all of his time would be absorbed by the process of producing the conditions needed for his survival, and he

[17] This has to be considered from the assumption that for Aristotle no one rationally would seek out such work for its own sake or for themselves; except, again, as a means to survive which is itself slavish and an obstacle to flourishing.

[18] *Politics* 1258b 36-8, 1278a, 20-1. See also Robinson, *Aristotle's Politics Books III and IV*, p. 71.

> would have no time left to engage in activities that are intrinsically good and that constitute happiness. (This, of course, is the state that Aristotle thinks a human being is in when he lacks a city.)[19]

So, apart from any problem of education or corruption of those who engage in craft,[20] the very nature of their work precludes an ability to engage in the contemplation or practical excellence that *eudaimonia* requires.

Now, it is certainly true that given Aristotle's sociological context, in which much of productive work consisted of difficult manual labor such as unassisted construction and subsistence farming, his view that productive activity constituted an inherent obstacle to cultivating virtue is easier to sympathize with, in comparison to our modern context in which people (at least in advanced industrial economies) hardly engage in difficult manual labor. This is part of the context of Arisotle's use of the term *banausoi* to refer to those who engage in productive activity (including basic manual labor and artisan craftsmanship).[21] This term was not merely descriptive but pejorative; it implied servility and baseness owing to the servility of productive activity, as Salmieri explained above.[22] However, as Andrea Wilson Nightingale notes, the banausoi were not limited to poor wage laborers but included many wealthy individuals who were not members of the traditional

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[19] Gregory Salmieri, "Aristotelian Ethics without Exploitation?" 10.

[20] This is an explanation offered by Martha Nussabaum, in *The Fragility of Goodness* (Cambridge UP: 1986), Chapter 1.

[21] The *banausoi* are those producers, especially, whose *technai* are related to useful products. *Metaphysics* 981b17-23. See also Andrea Wilson Nightinggale, "Liberal and Illiberal Arts in Aristotle," 30.

[22] See also David Whitehead, 1977, "The Ideology of the Athenian Metic," in Cambridge Philological Society (Supplementary Volume 4), 4.

Athenian aristocracy.[23] There is, then, a broader prejudice against activities which were done for the sake of use and necessity, which included all crafts, as against activities that Aristotle characterized as useless but intrinsically valuable in the sense that they pursued for their own sake.[24] Indeed, in Politics III, the banausoi are described as a type of slave.[25]

This sociological backdrop clearly involved an exploitative relationship between the propertied aristocratic class and those engaged in production. As Geoffrey E. Maurice Ste. Croix wrote, "the Greek propertied class…consisted essentially of those who were able to have themselves set free to live a civilized life by their command over the labor of others, who bore the burden of providing them with the necessities (and the luxuries) of the good life…"[26] This fact, which Aristotle obviously himself recognized, underscores a clear philosophical justification, from Aristotle's point of view, of the servility of production: if a class of people is needed to exist in order to create the necessities for another class to be able to live well and happily, clearly it is better to be a member of the latter class.

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[23]Andrea Wilson Nightinggale, "Liberal and Illiberal Arts in Aristotle," 32, *Politics* III 5, 1278a21-25.

[24] *NE* 1338a9-13, 1338al3-22, 1338a30-7. Andrea Wilson Nightingale makes the interesting argument that the uselessness of an activity is actually a measure of how free one is when engaging in it. This, she argues, is part of Aristotle's basis for elevating political activity over productive activity, and contemplative activity over political activity. Ibid., 49-50.

[25] 1277a37-bl.

[26] *The Class Struggle in the Ancient Greek World: From the Archaic Age to the Arab Conquests*, 116.

A life centered around virtuous activity, such as the life of a just statesman, has as its aim the noble and the fine, which is the very thing that motivates one to do it in the first place (i.e., it is being done for its own sake). If one's life is based primarily around fulfilling the ends of others, or is experienced as merely instrumental, it significantly lacks self-direction of an important kind.[27] This would even be true if one was pursuing one's own ends, but that all of own's own ends were structured and conceived as means. Consider, for instance, someone who orients their life around money-making. As Aristotle is clear in Book I of *NE*, money or wealth is only good instrumentally, and so attempting to orient your life around it is merely to make yourself slavish to that goal. But notice that what is problematic about such a life, if we take into account now the view that the productive-practical distinction is not a deep one, is not the activity itself but rather the way the activity is being pursued.

This idea is clarified, as Andrea Wilson Nightingale explains, in Aristotle's discussion of music as part of a liberal education.[28] For Aristotle, music is an important part of the educational system to ensure that young men are brought up in the ways of virtue; but an integral part of this is pursuing music for its own sake and not for the sake of some product (and recognizing this distinction). So for instance, in the *Politics* Aristotle explains that a student should not enjoy music for the sake of pleasure, or in a way that in-

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[27] See *Metaph*. A 2, 982b19-27, where it is argued that men are free when they do not exist for the sake of others, just as philosophy is the only free science since it is not pursued for the sake of usefulness.

[28] Andrea Wilson Nightingale, "Liberal and Illiberal Arts in Aristotle," 20-24.

volves musical competitions, or in a way that involves playing instruments requiring manual skill, or for the sake of an audience's pleasure.[29]

Could productive activity be similarly done for its own sake, in a sense that preserves individual autonomy? If so, then we should reject Aristotle's search for an activity that is intrinsically worthwhile in the sense of being unconnected to the creation of products. Instead, what is relevant is that a life of productive activity, to count as *eudaimon*, needs to be structured in a way that mirrors the virtuous activity Aristotle focuses on.[30] I will now explore how this might be understood, and argue that although Aristotle's search for an intrinsically valuable and useless activity is based in part on a prejudice, there is an important truth to his view as a characterization of the experience of a good life.

In a discussion of Aristotle's conception of productive activity, Jozef Müller makes the interesting suggestion that craft-activities could be pursued for the sake of their "original, built-in purposes."[31] As Aristotle tells us at the beginning of the *Nicomachean Ethics*, each craft has a goal for the sake of which it exists; medicine is health, bridle-making serves horsemanship, etc.[32] These in turn arise from general human needs and purposes (i.e., humans need health and military protection). So, despite the fact that productive activity, considered as such, does not need to make reference to the original built-

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[29] *Politics* 1339b38-1340a2, 1341a9-11, VIII 6, (1341a39-bl, 1341b10-18).

[30] Andrea Wilson Nightingale makes an interesting suggestion, but from the other direction, suggesting that contemplation is being done, e.g., by sophists, who pursue contemplation for the sake of money. Ibid., 54. However, she does note that this cannot be Aristotle's actual view, since he repeatedly stresses that contemplation is entirely disconnected from *praxis*.

[31] *Ibid*., 23.

[32] *NE* 1094a7-14.

in purposes, one could pursue crafts from those motives, deciding the actions for themselves: (*di' auta*); in that case, productive activity would be structurally analogous to virtuous activity - deciding to make bread *for the sake of* nourishment and courageously fighting the battle *for the sake of* preserving the polis. What would it mean to be motivated by those original built-in purposes? Plausibly, it would mean being motivated by understanding the craft in question and performing it well. For instance, a bread-maker, rather than being motivated purely by making money from selling bread or satisfying whatever desires his customers had, would be motivated primarily by developing his own conception of excellence in bread-making.[33] This is an idea I will explore further in Chapter V, where I consider more fully how Aristotle's conception of *techne* can fit into a contemporary understanding of creativity.

But there is a further way in which productive activities can be done for the sake of which they exist. After all, what does it mean to suggest that there is some ultimate need that gives rise to or explains the goals of these activities? Clearly, as is familiar from Book I of *Nicomachean Ethics*, ultimately it is *eudaimonia* as the overarching goal (or originating purpose) that gives rise to these subordinate goals and thereby explains the

[33] We may add, here, that there is also a difference between use and exchange value. But in an economy based on exchange, obviously the exchange is ultimately for the sake of some kind of use or consumption, as a bread-seller sells things for money in order to purchase things. See *Pol*. 1. 9 1257a6-13. Thanks to Monte Johnson for bringing this point to my attention.

existence of these goals (or needs[34]). So we can see bread-making, shipbuilding, construction, etc., as arising both for the sake of their built-in purposes, but also more fundamentally arising for the sake of human flourishing. And this last can be viewed from two perspectives: the social and the individual. Clearly, in the case of, say, military science, the craft can be understood as existing for the sake of protecting the *polis* or society as a whole. But, we might ask, why does *this* need arise? It arises, arguably, because the protection of the polis is relevant to the particular flourishing of the individual people living in it. The *eudaimonia* being promoted is not just any "in general", since ultimately flourishing is an agent-relative good.[35] So there is a quite natural sense, in which, for instance, the bread-maker is bread-making for the sake of his *own eudaimonia by* making bread for the sake of relieving hunger.[36] In an advanced economy, of course, this occurs indirectly, through trade: the bread-maker perhaps does not even eat any of his own bread, but by fulfilling this human need, can engage in trade with others for food (or

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[34] One might wish here to make a distinction between the needs that give rise to the goals and the goals themselves. So for instance, humans need food to maintain their bodies, but that is different than the goal of relieving hunger as a goal of bread-making. I believe this is consistent with what I am suggesting here; what matters for my point is that the activity of human functioning (which, in its proper form is eudaimonia) has certain requirements, and this is what gives rise to the goals for which various craft-activities come into existence. The goals or needs of the craft-activities could have no other foundation, given Aristotle's views on eudaimonia's completeness and finality.

[35] We can see that this is Aristotle's view (and, in my opinion, the correct view) of eudaimonia since for Aristotle it is a final end that we seek in the problem each of us faces in deliberation about how to live (*NE* 1094a18-22) and which would make sense of all of one's ends (*NE* 1095b23-6, NE 1097a15-b6), . This is the point of considering the popular views on what the good life consists in, and why they are mistaken (*NE* 1095b-14-1096a4).

[36] To be clear, this analysis is somewhat over-simplified, since there are multiple reasons, in an advanced society, to eat food. One is for sustenance, but food also has aesthetic value of a certain kind. So for instance, a particular specialty pastry-shop might have goods that are baked not for sustenance but for the aesthetic enjoyment of their taste and appearance. This line of thought is similar to one expressed in James Bernard Murphy, *The Moral Economy of Labor*, in which he argues that in Aristotle "production can be its own end; it is also governed by moral reason; and it also shapes the agent." (110).

money to buy food) with which he can sustain himself (and, by extension, his ability to engage in rational activity). He also sustains himself psychologically, in that pursuing his love of bread-making gives his life a sense of direction, purpose, and sense of competence. In fact, all *needs* that are fulfilled by craft-activities pertain to the sustenance (either physical or psychological) of the human *bios* - I shall explain and defend this claim later in the next chapter. From this perspective, then, productive activity turns out not just to be capable of being properly pursued "for its own sake" in the way needed for *eudaimonia*; it is also an excellent candidate for fulfilling the "self-sustaining role" that *eudaimonia* must have, as I argued in the previous chapter.[37] In other words, if productive activity is the activity by which human beings sustain their own *eudaimonia*, then a life in which productive activity plays at least a centrally important role seems to be a good characterization of *eudaimonia*.[38]

Finally, again, just as I have shown that a hierarchy between productive and practical activity falls apart, it makes no sense to view an excellent life as one composed of intrinsically valuable activities in the sense that the activities do not contribute to the creation of some product. For any action can be viewed from that perspective - including activities that would be considered virtuous if done from the right state of character. What Aristotle seems to have captured correctly is that autonomy or self-direction demands that

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[37] Aristotle might acknowledge that people *could* pursue productive activity for its own sake — but this would be a mistake. Thank you to Jozef Mueller for this clarification.

[38] I shall claim further, and later on, that it centrally plays this role, in the sense that its excellent application requires demands on time and energy such that one's life and other values have to be planned around it in order to live well.

in some sense the origin of the value of our ends comes from us and that in that sense we pursue them for their own sake. It certainly seems right that if one sees all of one's activities as means, or if one's life activities are understood to be primarily under compulsion, one will be unable to achieve the self-direction and pleasure that eudaimonia can offer (I explore this idea further in Chapter V). However, what this implies is not that a life of productive activity is inferior. It means, rather, that productive activity must be oriented towards *techne* - guided by the excellence internal to the craft itself - in order to be part of a *eudaimon* life.

III. Aristotle's Demotion of the Productive Life

The preceding not Aristotle's view, however (despite its seeming consistency with some of his other views), and in fact, as I have already remarked, Aristotle was rather hostile to a life of productive activity, considering it inferior and base in comparison to a life of virtue or of contemplation. I want to briefly explore further why Aristotle arrives at the view that productive work is slavish, and the class of people in Greek society who were the main target of this claim.

On a common interpretation of Aristotle's ideal state, the lives of the craftsmen and producers (*banausoi*) are centered around creating these products so that the city can thrive; in doing so, they allow others who have leisure to exercise virtue and engage in

contemplation.[39] Aristotle discusses in various places how productive thinking exists to compensate for the fact that humans lack natural ways to fulfill their survival needs and sustain themselves and therefore must produce artifacts in order to live.[40] On such a view, productive work is base (or at least not noble) and in fact excludes the possibility of virtuous activity,[41] since it takes up time and resources that could otherwise be applied towards virtue.[42] And in fact we do see in Aristotle a deep division between that which fulfills human necessities and that which constitutes the human good. As Aristotle says in *Protrepticus* by Iamblichus:

> But to seek for every science to produce some other thing and to require that it be useful is the demand of someone entirely mistaken about how much separates from the start the things that are good from the necessities; they differ the most. For among the things without which living is impossible, one should say that those that are necessities and joint causes, while all those that are appreciated for themselves, even if no other thing results from them, should be called goods in the strict sense; for this is not valuable because of that, and that for something else, nor does this get lost by going forward to infinity - rather, this stops at some point…One might see what we say is all the more true if someone transported us in thought, as it were, to the Isles of the Blessed, for in that place there would turn out to be no need of anything nor any

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[39] Some more recent commentators, such as Cary Nederman, argue that productive reasoning is actually regarded by Aristotle as a virtue, corresponding to excellence in productive thinking as a perfection of the rational part of the soul. On that view, the exercise of productive thinking would be part of the end of a good life based around rational activity, rather than being a merely instrumental means to that life. See also Rachel Barney, "Aristotle on the Human Function," 315).

[40] (*PA* 4.10, 687a23-b4), (*PA* 4.10, 686a25-b28), (*M* 1.2, 982b20- 5).

[41] (*Pol.* 1264b22-4, 1277b33-1278a21, 1319a24-30, 1328b33-41, 1329a19-29).

[42] Jozef Mueller, writing about productive thought in Aristotle, has made an important point regarding productive thought that relates to this issue. He notes that productive activities may be done not for the sake of one's own good (e.g. baking bread to make a profit) but rather for the sake of the purpose for which they came to be: in the case of baking bread, to feed those who are hungry. And doing productive activities in this way would in fact give them moral value - they are done for their own sake in the sense that they are chosen for the same reason that the actions and craft associated with them exist in the first place. The distinction between virtuous activity and productive activity exercised excellently on his view is primarily a matter of the difficulty and importance of the goals being achieved: e.g., the preservation of the polis through justice is a more complex and difficult matter than excellence in baking bread or any other specific craft. (Mueller, "Practical and Productive Thinking in Aristotle").

> benefit from anything else, with only contemplating and observing left remaining, which we say now too is a free way of life.[43]

The very nature of productive activities - that they are valuable insofar as they contribute to the creation of a product separate from the activities themselves - and therefore the creation of all human necessities - is what renders them less valuable, and therefore not included in the best human life[44], which is the self-sufficient excellent exercise of practical reasoning and theoretical reasoning.[45] In the *Politics,* Aristotle even remarks that craftsmen (*banausoi*) exist in a relation similar to that of a slave with regard to their employers or patrons[46] or the city itself. Gregory Salmieri, in exploring the unfortunately exploitative elements of Aristotle's political views, comments that "the banausos does not have a *life of his own*, but participates (in a delimited way) in the life of each of the clients whom he serves, just as a slave participates (though more fully) in the life of his master."[47] On Salmieri's view (with which I agree), the inherent *instrumentality* of pro-

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[43] Iamblichus, Protrepticus, ch. IX, 51.7-54.5.ch. IX, 51.7-54.5. See also Monte Johnson and D.S. Hutchinson, "Authenticating Aristotle's Protrepticus," *Oxford Studies in Ancient Philosophy* 29: 193-294 (2005).

[44] This is why, for instance, the life of money making is rejected in book I of NE at 1069a7; see also *Politics* I.8-10.

[45] As Gregory Salmieri, has written, this result may come from Aristotle's viewing life as composed of a collection of "intrinsically valuable" activities. He means by this that they would be worth pursuing even in total isolation from other goods that are important in a *eudaimon* life. Productive activities are by their nature *not* intrinsically valuable in this sense and therefore are primarily an obstacle or hindrance to life's true aim. However, as he suggests, we need not abandon Aristotle's eudaimonism (the idea that life and practical reasoning is structured towards an ultimate end of flourishing) to abandon the idea that some activities are intrinsically valuable in this way. Instead, we can view all activities that compose a life as instrumental to the overall life itself - instrumental in sustaining it and enhancing it ("Aristotelian Ethics Without Exploitation?").

[46] *Politics* I.2 1259b41.

[47] Gregory Salmieri, "Aristotelian Ethics Without Exploitation," 7.

ductive work (the fact that it exists always for something beyond itself) is precisely what makes it slavish, and what prevents a person whose life is taken up by this activity from being a good life.[48]

It is worth observing, as Salmieri does, that this view necessarily lends itself to an exploitative view of *eudaimonia*. If productive work is necessary for *eudaimonia* as an enabling condition, but it is necessarily to be avoided by anyone to experience or engage in virtuous activity, there must necessarily be some class of individuals whose ability to engage in virtue is obstructed in order to sustain the virtuous activity of others. The problem with such a view is that it cannot be justified from an account of human nature except by dividing humans into different ontological categories (as Aristotle does with women and slaves).[49] And yet the *banausoi* are not members of such a separate category. As I shall show in the next chapter, if we discard the basic Aristotelian assumptions that led to this view, this exploitative element no longer arises as a problem.[50]

Finally, for Aristotle, his view of productive work can also be related to his view of human function, and function more generally as it occurs in the living world. Function plays a crucial role in Aristotle's view of metaphysics, that of course has important impli-

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[48] For Aristotle, this distinction applies even *within technai*: the value of techne is not related in any way to the usefulness of its products, and "when more arts were discovered, some related to necessities and others to recreation, the discoveries of the latter were always supposed to be wiser than those of the former because their knowledge wasn't related to use." (*Metaph.* 981b17-20). I am indebted to Gregory Salmieri for this point.

[49] See Dana Stauffer, "Aristotle's Account of the Subjection of Women," *The Journal of Politics* Vol. 70, No. 4 (Oct., 2008), pp. 929-941.

[50] Or, at least, it is less obviously a problem. Arguably, it could arise in a new form, where "undesirable work" is a necessary condition for "desirable work" to be performed. I will argue that such a view is mistaken, however.

cations for his function argument as it occurs in *NE*. Recall, as I explained in Chapter I, that for Aristotle, "all things are defined by their function (*ergon*) and power (*dunamis*),"[51] and the function in turn determines what is good for a thing and what counts as its excellence or virtue.[52] Living things are therefore unified by their functions, since that is how we can understand all of their parts and development.[53] At the level of the nutritive soul, the functions of an organism aim exclusively at preserving its form and life.[54]

But Aristotle doesn't see the characteristic activity, in the case of the rational soul, as one that must *essentially* be maintaining the life of the organism itself. Rather, he sees it as primarily a characteristic or defining activity of the entity in question - understanding how something is what it is. So even if it is true that productive activity is necessary to support human functioning more generally, it is not thereby necessary to the excellence of a *particular* human being - since the exercise of that function (e.g. the rational activity of a wise politician) has no *necessary* connection to the maintenance of the human life exercising it (which could be maintained by the activities, e.g., of other laborers or slaves). At best, we could say that the activities of the human body, insofar as they arise from a nutritive capacity, "aim" to preserve the human form. Of course, this is more or

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[51] *Pol.* I.2 1253a24.

[52] *NE* 1097b, 1098a.

[53] *PA* 645b 15-20.

[54] *DA* III.12, 434a22-26, *GC* II.8, 335a15-16. Even reproduction falls under this view, since for Aristotle nutritive and reproductive functions are unified: *DA* II.4, 416a19-21. See also, Jim Lennox, "Aristotle on the Unity of the Nutritive and Reproductive Functions."

less automatic, and the fact that this function needs an external input from rational choices (e.g., for food and drink) does not entail for Aristotle that excellent rational activity is concerned with or aims at self-preservation.

So, in sum, we find two reasons in Aristotle why productive activity is demoted to an inferior status relative to virtuous activity (or contemplation), and not included in virtuous activity.[55] The first is that Aristotle's *eudaimon* life is composed of activities he sees as done for their own sake and not valuable for the sake of some further product (i.e., intrinsically valuable); productive activity, always being for the sake of a further product, is therefore incompatible with the activity comprising *eudaimonia*. Productive activity is only necessary as an external enabling condition, and to base one's life around it is slavish. The second is that he sees 'function' (at least in human beings) primarily as a way of identifying *characteristic activity*, rather than as a characteristic form of self-maintenance. This provides a metaphysical justification for separating the components of human activity that sustain it from the components that constitute excellence and flourishing.

In the chapters that follow I will depart significantly from Aristotle's views, as the reader should already suspect. While I think his eudaimonism affords us a powerful framework for understanding how to think about living well, in adding the self-sustaining

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[55] Aristotle is very clear, e.g., in the Politics, that virtuous activity requires leisure and therefore cannot involve manual work. See *Politics* VII.9 1328b-1329a, *Nicomachean Ethics* 1176b1, 1140a5-b6. Ultimately, I think Aristotle's dismissals are unjustified from not only our modern perspective and more extensive evidence of the human condition, but even from his own perspective. Specifically, I think that a life based around productive activity could be *eudaimon* for Aristotle if it involved seeking productive activity *for its own sake*, where this is understood as being guided by the relation between the craft and the human good, rather than pursuing productive work purely instrumentally for the sake of wealth or some other good. See my "Productive Activity and Eudaimonia."

condition and reconsidering the role and nature of functional capacity and explanation, we find ourselves in a radically different position when considering what kind of activity, or what kind of life, is a good candidate for *eudaimonia*. I will argue that a life based around productive activity, i.e., a life in which production is a central constituent, is the best candidate for *eudamonia*. Such a life meets the constraints of a eudaimon life as I laid them out: it is final and self-sufficient, self-directed, and self-sustaining.

I shall demonstrate this by showing in what ways production is an activity that allows us to sustain our lives, from a physical and a psychological perspective[56], and that it makes our life self-directed (by grounding self-determined motivation) and experienced as an end in itself. This last, in particular, will show that far from being slavish, productive activity is a noble and liberating activity.

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[56] In addressing material and psychological sustenance separately, I do not mean to imply that these are metaphysically separable components of creative work, nor that they are metaphysically separable in the human being. Rather, they are two aspects of the same issue, since on this view psychological sustenance makes physical sustenance possible and vice versa - and what is being sustained is the *whole* self - our bodies and our identities. However, it is helpful to separate them in discussion, particularly since the best examples and evidence that best illustrate each aspect will often differ, and hence this will aid in the clarity of my presentation.

IV. Production as a Central Constituent of Eudaimonia

Until this point I have been working with a largely formal or abstract characterization of *eudaimonia*: a life of self-directed, self-sustaining, rational activity in accordance with virtue, which serves as our proper ultimate end. These formal characterizations are in turn based upon the nature of the human *bios*: our way of life as self-directed rational agents. The task at hand, then, is to more substantively characterize the life that meets these formal requirements.

In this chapter I will argue that production (or productive activity) is the central activity that enables us to create a life that meets these requirements.[1] This is for the following reasons. First, production makes our activity self-sustaining, in the sense that production is a necessary sustaining component of the human *bios* from both a material and a psychological perspective. Secondly, production allows us to experience and properly structure our life as an ultimate end: an ongoing and open-ended activity that can fully engage us.[2] Finally, the work of production is self-directed: it demands independent rational thought and effort, and creates the conditions for proper motivation.

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[1] I will at various times refer to production or productive activity (and occasionally, simply as "work"), according to whichever phrasing is most natural; I mean by these terms the one and same activity.

[2] By "fully engage us," I mean it can fully engage our rational capacity, which defines the human way of life.

By production, I do not mean work that is unrelated to practical goals. I mean by this term independent[3] mental functioning that produces value, contributing to human sustenance and/or the enhancement of existing human values, and partaking in or developing a craft or *technē* and/or the understanding of that craft.[4] The activities we typically understand careers to be organized by, for instance, are production in this sense: architectural work, farming, teaching, engineering, composing music, studying biology, and so on. All these activities are defined and understood by their goal in producing a service or material product that contributes to human life.

In suggesting that only a life centered around production can meet the demands created by the human *bios* and the formal constraints of *eudaimonia,* I draw significantly on the thought of Ayn Rand. When one explores her view of productivity, one finds a powerful and insightful way to see how one can understand the role of production in sustaining human life. In further exploring this view, I examine two (somewhat) recent trends in psychology, namely the "flow" psychology of Czikzentmihalyi and in the Self-

[3] By independent, I do not mean that productive activity cannot be collaborative. I mean that for work to count as productive, one must make a distinctive independent contribution to it that cannot be reduced to another's contribution.

[4] *Technē* is here understood as the perfected form of productive activity or craft, described by Aristotle as 'state involving true account (logos) concerned with production (*poiētikē*)' (*NE* 6.4, 1140a10). I understand the development or cultivation of *technē* as requiring novel conceptual integrations: specifically, integrations between one's specific context/circumstances/resources and what promotes the human good in general. So, for example, James Watt inventing the steam engine involved the productive activity of integration facts about physics and engineering, together with the understanding that such an engine vastly improves the capacity to fulfill the human need for energy. In my sense, production can also involve services or knowledge: for instance, Maria Montessori engaged in production by integrating scientific data and her own research to create a new method of education. In doing so she integrated information available to her with the fact that the education of children is crucially important and valuable to human life. I understand Aristotle as having the view that "production" here is broadly construed, in that it can include the production of non-material things, like health; indeed, medicine is one of Aristotle's central examples of productive activity.

Determination Theory of Edward Deci and Richard Ryan to find promising frameworks for understanding how production contributes to human flourishing.

I. Production as Self-Sustaining

The first part of my task will be to show in what sense I mean that production grounds the sustenance of the human *bios*, and why we should accept this claim. In developing this idea, I think we can see it on two broad conceptual levels, one operating at the level of human society as a whole, and the other operating on the level of an individual pursuing their own *eudaimonia*. On the view I will defend here, from the perspective of the human *bios* considered generally, human societies have advanced in their capacity for physical health and nutrition, safety from injury, transportation, communication, comfort, and safety from natural disasters and the elements through production. From the perspective of individual flourishing, the point is the same, except the context is different: an individual's physical well-being is made possible by production (whether it is theirs or the work of another human being). In claiming that production "grounds" sustenance, I mean this precise point: that the human *bios*, the way of life that is characteristically human, is causally made possible and sustained through individual productive activity.

a. Production in Human Society

The astonishing and far-reaching capacity of human beings to produce tools and artifacts using reasoning - scientific discovery, creative problem-solving, entrepreneurship, the general transformation of material in the world to productive use and so on - is of course not a new discovery, nor is the idea that it is centrally important to what it means to be a human being, and live a human way of life, a new philosophical idea. This conception of human nature — of human beings as *homo faber* — has roots that are perhaps found as early as the Italian Renaissance in the work of figures such as St. Antoninus of Florence and Giannozzo Manetti or in the early Protestant traditions.[5] This conception had further and somewhat more sophisticated philosophical development in the Enlightenment, particularly in intellectuals such as Adam Smith, John Locke, Benjamin Franklin, Jean-Baptiste Say, Richard Cantillon, Alexis de Tocqueville, and others.[6] It is also in part on this rich tradition, as well as reflections on the Industrial Revolution, that later conceptions of human beings as producers by nature were developed. In particular, we can see this in the views of Karl Marx and Ayn Rand (views which I shall make use of here). While a full treatment of the meaning of this issue could be a project unto itself, I will here sketch in broad outline what it means to see production as a central mode of

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[5] Joanne Ciulla summarizes Renaissance conceptions of work in *The Working Life: The Promise and Betrayal of Modern Work* (New York: Random House, 2000), 47–49.

[6] Koolman, (1971) "Say's Conception of the Role of the Entrepreneur". *Economica*. **38** (151): 269–286., Coase, R.H, "Adam Smith's View of Man," *The Graduate School of Business*, Adam Smith, *The Wealth of Nations*, Jean-Baptiste Say, *A Treatise on Political Economy*, 1803, Richard Cantillon, *Essay on the Nature of Trade in General*, 1755, Alexis de Tocqueville, *Democracy in America 1835,* Benjamin Franklin, *The Autobiography of Benjamin Franklin*, 1791, John Locke, *Two Treatises of Government,* 1689.

human sustenance, drawing on these philosophers, and why it is relevant to thinking about *eudaimonia*.[7]

One clear way to see in what sense production sustains human life in general, in my view, is via the concept of wealth. Wealth is often understood as an accumulation of objects of value, e.g. “an abundance of valuable material possessions or resources.”[8] However, I think the more important element of wealth, which economists such as Baptiste-Say understood, is the capacity to survive and flourish. While from certain limited economic contexts it is helpful to think of wealth as an accumulation, in general a vast amount of resources does not actually improve one’s life or lead to well-being, if one cannot use it. After all, the concept of wealth is intimately tied to prosperity and well-being — in its archaic usage, wealth *meant* “well-being.”[9] If we understand well-being from the *bios* perspective, as the ability to engage in a certain way of life, then the way we should understand wealth is as part of what enables or constitutes a human *bios*. Bringing this perspective into view is important for understanding the source and context in which wealth is originated. For instance, prior to its application and use, vast reserves of fossil fuels could not have counted as wealth — even though its potential was there all along. The same is true of gold.[10] This perspective is expressed clearly in Adam Smith’s formu-

[7] There are many more examples, especially in the German philosophical tradition, such as Hannah Arendt, Simone de Beauvoir, and Simone Weil.

[8] Merriam-Webster.

[9] *Ibid*.

[10] “Use” here may be broadly construed. For instance, one may gather resources as wealth if one has reason to believe they will become applicable in the future, even if the technology needed to channel its energy does not yet exist, or the market for it is currently limited.

lation of wealth as "the degree in which [a human being] *can afford to enjoy* the necessaries, conveniences, and amusements of human life."(italics mine)[11] Jean-Baptiste Say argued that "to create objets which have any kind of utility, is to create wealth; for the utility of things is the ground-work of their value, and their value constitutes wealth."[12] He goes on to write, illuminatingly:

> Objects, however, cannot be created by human means; nor is the mass of matter, of which this globe consists, capable of increase or diminution. All that man can do is, to re-produce existing materials under another form, which may give them an utility they did not before possess, or merely enlarge one they may have before presented. So that, in fact, there is a creation, not of matter, but of utility; and this I call *production of wealth.*[13]

I take it here that what Baptiste-Say means by suggesting that objects cannot be created by human means is that strictly speaking human beings do not create (*ex nihilo*) the material values that constitute wealth, but rather creatively transform existing materials into new combinations.[14] And so it is the *utility* of objects, and the capacity to develop or cultivate that utility, that is relevant for wealth and the creation of wealth. This utility must, in the first place, be innovated, invented, discovered and/or grasped. This is true whether it is the development or improvement of agriculture (from understanding how to plant seeds to the genetic modification of foods to make them more affordable and easier to

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[11] Adam Smith, *The Wealth of Nations*, 47.

[12] Jean Baptiste Say, *A Treatise on Political Economy*.

[13] *Ibid*.

[14] Baptiste-Say is full of excellent examples to illustrate this point; here are two others: ". The coal or metal may exist in the earth, in a perfect state, but unpossessed of value. The miner extracts them thence, and this operation gives them a value, by fitting them for the use of mankind. So also of the herring fishery. Whether in or out of the sea, the fish is the same; but under the latter circumstances, it has acquired an utility, a value, it did not before possess." In this sense, the value is in the transformation itself, not merely in the object.

mass-produce), the invention or development of new forms of transportation (from training horses to inventing and producing airplanes), or the creation or improvement of human structures (from basic principles of construction to the construction of skyscrapers and suspension bridges).[15]

What is crucial here is that work is not (or is not in its fullest expression) a mindless or automatic exercise, but rather something that requires intellectual effort and engagement. We can see in Karl Marx an eloquent description of this fact, where he distinguishes humans from other animals:

> Labour is, in the first place, a process in which both man and Nature participate, and in which man of his own accord starts, regulates, and controls the material re-actions between himself and Nature. He opposes himself to Nature as one of her own forces, setting in motion arms and legs, head and hands, the natural forces of his body, in order to appropriate Nature's productions in a form adapted to his own wants. By thus acting on the external world and changing it, he at the same time changes his own nature. He develops his slumbering powers and compels them to act in obedience to his sway. We are not now dealing with those primitive instinctive forms of labour that remind us of the mere animal…A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. At the end of every labour-process, we get a result that already existed in the imagination of the labourer at its commencement. He not only effects a change of form in the material on which he works, but he also realizes a purpose of his own that gives the law to his *modus operandi*, and to which he must subordinate his will. And this subordination is no mere momentary act.[16]

Marx's perspective is that our nature is such that our creations, the objects we use to sustain our lives, must exist in our imagination and consciousness before they are brought into being. We must therefore have "projects" and "plans" to transform the world to suit

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[15] Matt Ridley, in his book *How Innovation Works*, argues that often innovation is often misunderstood in terms of what it needs to thrive (on his view, freedom) and how it changes our lives (by increasing our interdependence and thereby specialization and efficiency of our work).

[16] Karl Marx, *Capital*, Chapter 7, 198.

our needs and purposes.[17] It might be thought that such a grandiose perspective on work would certainly apply to cases such as an architect designing a structure, but hardly speaks to the nature of work as such, since there are apparently many examples of work, such as factory labor, in which it seems quite separate from one's purpose and project that one is working. However, Marx is here writing about the nature of work in general, and not about cases under which it would be considered to be alienated from his perspective (such as it would be in a capitalist society).[18]

I will discuss the issue of alienation from work (specifically, ways in which one can be self-alienated from one's work) in the next chapter. However, I want to stress that even in factory labor (in this example, in a capitalist society), the work involved *is* intellectual in my sense, and even in the way Marx has characterized it above. Let us take Henry Ford's company - the individuals working around him - as an example. By examining this case, we may gain an important insight on what it means to see the productive activity involved as sustaining the *bioi* of Ford himself and those with whom Ford collaborates. His managing staff contributes productively by understanding (to whatever extent their work is well done) how to manage the time and task division of the employees in order to keep the manufacturing operations efficient and coordinated. What about the workers on the assembly line? Their productive work consists in their contribution to specific aspects of the automotive assembly. One might again think that work at this level

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[17] *Ibid*.

[18] For discussion of this point, see Iring Fetscher, "Karl Marx on Human Nature."

should not count as productive in my sense; but this would be a mistake. The work on Ford's assembly line required an understanding of, and consequent cultivation of the value of the job to the company, to the worker's own lives and their family's, and to the extent they are ambitious, to endeavor to understand how to ascend through promotion or through ultimately developing skills that enable them to meet further challenges in new contexts. This requires integrating information about what skills they need to acquire, how to manage their time, etc., and then acting on those skills. Moreover, their work contributes value to the larger project of automotive production in the company, which enables their own lives and the production of cars that enhance human life.[19]

This is just one example, but these observations illustrate the basic point that processes of rational thinking are behind all entrepreneurial ventures and innovations, as well as artistic and scientific achievements, at all scales of ability and scope. Human wealth, then, is necessarily the product of intellectual effort. The immediate corollary to this point, as has already been indirectly illustrated by the example of the Ford Motor Company, is that while productive thinking is performed by individual human beings (since even in a group human beings can only share and give feedback on each others' individual judgments), human wealth requires cooperation between individuals, which occurs in the form of exchange. By innovating the assembly line, Henry Ford provided an

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[19] Note that the point here is that for these workers to do their work well, and to maximize the way their approach to work enhances their lives, their work has to be intellectual. Clearly, there is a range of intellectual effort one can engage in work with, and this is an aspect of the degree to which one pursues work virtuously. I am here using examples of what would be required for a virtuous engagement with work (which will be explained in greater detail in the next chapter).

enormous value to human well-being: to the workers of his company (and other companies which were then free to adopt his innovation) by enhancing their own productivity[20] and means of sustenance, to the consumers of his products who could enjoy greater access to them at lower prices, and to himself through wealth creation. However, exchange is only valuable when it promotes the rational values (in this context, values based on a rational identification of needs) of those involved. Just as an accumulation of resources or matter does not produce wealth if it is not made useful by intellectual effort, exchange for the sake of exchange without thought and understanding of how to promote values cannot, ultimately, produce wealth.[21]

The ultimate historical basis for the claim that production sustains human life is the fact that where and to the extent that productive activity has thrived and developed in human societies, everything else being equal, human well-being has flourished as a result. By this I mean that history shows us that production is an integral component of human activity that enables other important values such as food, cooperation, knowledge, specialization, etc. (which themselves enhance production, making it more efficient and easier).

So, for instance, the productive innovations achieved by intellectuals, craftsmen, and merchants during the Renaissance in navigational science, economic innovation and

[20] The assembly line increased productivity in that each worker's contribution was made more efficient, since they could focus on simpler tasks with the assistance of machine, resulting in lower overall production costs and a greater number of cars manufactured. See "Moving Assembly Line" in the *Encyclopedia of Production and Manufacturing Management*.

[21] For example, consider the famous "Broken Window Fallacy," introduced by Frederic Bastiat in "Ce qu'on voit et ce qu'on ne voit pas," 1850.

organization (such as double-entry bookkeeping and patent law), developments in art (such as secular subjects and perspective in drawing and painting) and of course the development of the printing press, and art led to greater knowledge, prosperity, and human self-expression, particularly in Italy.[22] Similarly, the Age of Enlightenment, the waning power of mercantilism, guilds, and aristocratic and feudal control and power in the late 18th century and early 19th century helped pave the way for the Industrial Revolution. The productive activity occurring during this era was transformational. This was especially visible in England and the United States, where it lead to an unprecedented improvement in human well-being across a number of domains: in terms of life expectancy, energy, leisure time, medicine and health, manufacturing innovation, transportation, and so on and so forth.[23] Towards the end of the 20th century and the beginning of the 21st, the culture of creative thinking and innovation in digital technology and computers, achieved by scores of talented engineers, programmers, scientists, and entrepreneurs, has lead to a drastic improvement in the efficiency of human labor, connectivity, and collaboration, notably with the creation and widespread manufacture of the compact and affordable personal computer. Clearly, the positive impact of production in all these cases does not detract from gross injustices that were widespread in past societies (notably, slavery, the subjugation of women, unjust social hierarchies, unjust warfare), and these arguably in

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[22] Burckhardt, Jacob. *The Republics: Venice and Florence, The Civilization of the Renaissance in Italy*. 1878.

[23] See David S. Landes (1969). *The Unbound Prometheus*. Press Syndicate of the University of Cambridge, T.S. Ashton, *The Industrial Revolution.* New York: Oxford, 1968, Reisman, George (1998). *Capitalism: A complete understanding of the nature and value of human economic life.*

many cases limited the positive impacts of human production to improve human life. This does not take away from the central point of production's crucial role. It means, rather, as many sociologists and anthropologists have stressed, human history has not been a clear path of progress.[24]

The general point, which I will not further belabor here, is that the human *bios* thrives with productive activity. When we are surrounded by productive activity, or live in a culture or society where the best forms of such activity is possible, rewarded, and encouraged, human beings will tend to improve the material character of their lives through invention, innovation, discovery, and collaboration. To the extent that this was true in human history (or prehistory), humans have flourished. Where production was limited owing to the limits of technology and knowledge, such as before the birth of city-states, or prior to agriculture, human life characterized by stagnation.[25] As the historian Lewis Mumford wrote,

> the city effected a mobilization of manpower, a command over long distance transportation, an intensification of communication over long distances in space and time, an outburst of invention along with a large scale development of civil engineering, and, not least, it promoted a tremendous further rise in agricultural productivity.[26]

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[24] See for instance Jared Diamond, *Guns, Germs and Steel*: "Hunter-gatherers practiced the most successful and longest-lasting life style in human history. In contrast, we're still struggling with the mess into which agriculture has tumbled us, and it's unclear whether we can solve it." (98)

[25] Interestingly, the agricultural revolution involved at first resulted in a decline in human health, owing to decreased variety in diet and a more sedentary lifestyle. See Latham, Katherine J., "Human Health and the Neolithic Revolution: an Overview of Impacts of the Agricultural Transition on Oral Health, Epidemiology, and the Human Body" (2013). Nebraska Anthropologist. 187. See also James Scott, "Against the Grain: a Deep History of the Earliest States," where is it argued that the benefits of agriculture were offset by diseases and warfare. Regardless, it is clear that over time the contribution of agriculture to the possibility of the development of cities, with increases in knowledge and specialization of labor, ultimately led to greater human well-being.

[26] *The City in History*, 30.

To the extent, and in times and places where productive activity was discouraged or made difficult to engage in, such as early feudal Europe under the stranglehold of the Catholic Church, guilds, and aristocracy, human beings were less able to intellectually engage in productive work and its life-giving capacity was diminished, leading to stagnation, suffering, and impoverishment.

Again, all these points must be understood within the context that the standard of human flourishing is aspirational, and not a threshold. Clearly, humans were capable of sustaining the human bios on some level in before the developments of cities or in medieval Europe. However, the evaluation from the *bios* perspective requires us to consider the fact that human flourishing occurs on a continuum and is open-ended. Therefore, to say that human flourishing was in decline or diminished in these times and places is to say that human potential for flourishing along the continuum was impeded or suppressed relative to what it could have been if production and productive thought had been possible to a greater degree, *ceteris paribus*.

b. Productive Activity in a Human Life

I have outlined the role of production in human society in general, as the basis of the creation of wealth and of exchange of values and knowledge. But my focus is not on politics, nor on how best to organize societies, but how to live well from an individual standpoint. Again, there is no sharp distinction here, only a shift of context; what is good

for the human *bios* generally is good *because* it is good for individual human beings pursuing their happiness.[27] In this section, I will explore what I mean to say that productive activity grounds *one's* material sustenance: what does that look like, or what does it mean? How does one organize one's life around productive activity? The full answer to this will not be in this section, but rather partly in this one and the following, where I shall discuss the psychological components of production: under what conditions it is possible, and how it grounds psychological sustenance.

To start, it is worth reiterating a claim made in the introduction, that a great deal of our adult lives is spent working.[28] In general, I am not at present concerned with those who, whether by choice (e.g. someone who has inherited sufficient wealth not to engage in work), or due to unfortunate circumstances beyond their control (e.g., the homeless or severely disabled) do not engage in productive activity.[29] Following the foundation I have laid out in the previous three chapters, what makes productive activity a central constituent of *eudaimonia* is not a matter of its being removed from material sustenance, or

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[27] In other words, my view implies no metaphysical commitment to a collective human good, or a human good or value existing apart from its role in any particular individual's life.

[28] We may, of course, think that this is itself a problem. Undoubtedly, in some cases, such as the notorious 9-9-7 work culture in China, work can be excessive to the point that it crowds out other values and leads to job stress, which is similarly a growing problem in South Korea and Japan. I will discuss more about the psychological conditions of productive activity in the next section.

[29] My point that their lives are sustained by production still stands, of course, since an heir could not survive without the productive activity that led to the wealth she currently enjoys, and a homeless person could not survive without working without alms or public assistance, which itself required production in order to exist.

its being an intrinsically desirable good.[30] Rather, it is precisely the fact that it is grounds sustenance that makes it of central importance.

A particularly clear statement of the philosophical importance of productive activity, and this feature of it, in a human life can be found in the work of Ayn Rand and the recent literature on her ideas. As is made clear in this growing body of academic literature on Rand, she shares many assumptions with many Neo-Aristotelians, a fact which is unfortunately infrequently recognized.[31] In particular, she defends a form of eudaimonism, insofar as she understands the structure of a moral life to be constitutively aimed at one's individual happiness,[32] with a focus on virtue (involving excellent practical reasoning) as a necessary means to that end. However, Rand is importantly revisionist in her conception of ethics; to that extent, she departs significantly in her approach from dominant ethical approaches. She is revisionist in the sense that she understands ethics to have been historically misguided in several important ways, including (but not limited to) the fact

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[30] In this respect, I differ from Andrea Veltman, who has made an otherwise worthy contribution to the Neo-Aristotelian discussion of the role of work in life in her book *Meaningful Work*. Veltman follows the Aristotelian assumptions in the last two chapters (and the beginning of this one) that living well is a matter of securing a set of intrinsically valuable goods (knowledge, autonomy) and pursuing intrinsically valuable activities (meaningful work, moral virtue) (41). These goods are intrinsically valuable for her in that they are worthwhile for their own sake and not as a means to some further good. On my view, by contrast, what makes work valuable is its role in sustaining one's life, and thereby sustaining one's *eudaimonia*, which consists not of intrinsically valuable activities but a set of integrated, agent-relative of values that fulfill oneself, sustained over a lifetime.

[31] See the work of Allan Gotthelf, Ben Bayer, Darryl Wright, Tara Smith, Greg Salmieri, Leonard Peikoff, Jim Lennox, Harry Binswanger, and others who have engaged with Rand's work outside her perspective such as Paul Bloomfield, Christine Swanton, and Lester Hunt.

[32] To be clear, she is not a psychological eudaimonist: her view is not that individuals necessarily pursue happiness. Rather, her view is that the only proper goal of morality, based on its source in an objective need for rational guidance in pursuit of values, is one's own happiness. See "The Objectivist Ethics:" "…the achievement of his own happiness is man's highest moral purpose."

that historically the ethical importance of human production has not been understood or recognized. In her work, productiveness is extolled as a cardinal virtue:

> The virtue of productiveness is the recognition of the fact that productive work is the process by which man's mind sustains his life, the process that sets man free of the necessity to adjust himself to his background, as all animals do, and gives him the power to adjust his background to himself. Productive work is the road of man's unlimited achievement and calls upon the highest attributes of his character: his creative ability, his ambitiousness, his self-assertiveness, his refusal to bear uncontested disasters, his dedication to the goal of reshaping the earth in the image of his values.[33]

On her view, happiness is the ultimate goal of ethical thinking and action, and moral virtues are integral to achieving happiness, understood as the achievement of objective and fundamental human values. Objective ethical standards governing thought and action are in turn grounded in our biological nature as human beings, and values are agent-relative and self-directed but based in an objective assessment grounded in biological needs.[34] In light of this, I find her discussion of productive work potentially valuable for Neo-Aristotelian ethics, and, in particular, helpful for my purposes here.

What does Rand mean when she suggests that productive work is the process by which man's mind sustains his life? We find an echo of the earlier excerpt by Baptiste-Say in her idea that human beings "adjust" one's background to themselves and "reshaping the earth" according to one's values. On Rand's view, life is "a process of self-sustaining and self-generated action,"[35] which, in human beings, takes the form of a rational

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[33] Ayn Rand, "The Objectivist Ethics," 26.

[34] Leonard Peikoff, *Objectivism: The Philosophy of Ayn Rand.*

[35] Ayn Rand, *For the New Intellectual*, 121.

pursuit and selection of values.[36] So what productive work makes possible and sustains is this process or activity. In a prehistorical or simplified context, this would be quite straightforward: one needs food and shelter in order to be safe and have energy, and so one must hunt, find a cave or other dwelling-place (perhaps building one) and organize with others for self-protection and cooperation. In this context, the productive activity of building a shelter or tools for hunting or clothes for protection against cold are all the means by which one is able to continue living a life of rationally choosing and pursuing values.[37]

Even if one chose to live in this prehistoric culture by preying on others, the fact of productive activity sustaining oneself would not change - one's sustenance as a predator is made possible by the values one is robbing from others (e.g., food, shelters, tools). In a more advanced society, with division of labor, sophisticated cooperation and collaboration, and advanced knowledge, the role Rand ascribes to the "mind" becomes clearer, in two senses. First, the role of mind is necessary in terms of choice - the options faced (of what kind of work to engage in) by a person in an advanced industrialized economy are much more numerous than in a pre-industrial or even prehistoric one. Secondly, because of the advanced opportunities for cooperation and the acquisition and use of knowledge, the role of creativity is clearer and more varied.

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[36] Ayn Rand, *The Virtue of Selfishness*, 15.

[37] It does not matter here if we regard the purpose of hunting as merely being for eating. Because clearly, the purpose of eating is to sustain our bodies and to relieve hunger, in order that we may continue living.

The basic way in which individuals face a choice of productive work in a modern advanced society is in the choice of a productive career.[38] This stresses, in part, the psychological role that productive work has in our lives, since it frames how we see and understand ourselves and our lives. A productive career in this context means a succession of jobs, goals, and creative activity integrated into a productive purpose. For instance, a career in interior design may involve a development of skills and education concerning the principles of design, work in some entry-level design jobs, and perhaps ultimately starting a private firm, all guided by a view to the purpose of creating aesthetically enjoyable and practical spaces. A successful career in this sense requires and involves creative thinking: the thinking needed to integrate information about what skills one is to develop, how one is to apply for and seek out work, understanding what kind of work is meaningful[39] to oneself, and then exercise those skills and expanding them to the best of one's ability in order to persevere. This in turns involves thinking about how to make one's work valuable to others with whom one can trade and collaborate.

Any choice of work that is genuinely productive (producing objects or services that promote human sustenance) will in a career sustain oneself materially in a modern society by enabling one to continually (and, ideally, continually more effectively) ex-

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[38] Obviously, even in modern advanced societies, there are individuals who are struggling to subsist and therefore do not face a productive career as their basic choice in engaging in productive work. However, such tragic situations are not the primary focus of ethical reflection here, since this reflection is concerned with outlining a view of human flourishing; tragic cases of the impossibility of flourishing are therefore not my subject at present.

[39] By 'meaningful' here, I do not mean mere subjective preference, but the possibility of sustained psychological engagement with an activity that does not undermine one's other core values. In addition, work's being meaningful here is stipulated as a necessary condition of success, not a sufficient condition.

change one's effort for the material values of others (mediated by monetary exchange) with which one can continue to engage in the activities that constitute one's life. For a virtuous person living a *eudaimon* life, their productive work thus sustains the activities that constitute *eudaimonia*: if, as the last three chapters have argued, *eudaimonia* must involve the activity that keeps it in existence, and if productive activity is the basic activity that sustains human life[40], it follows that productive activity is necessarily a central constituent of *eudaimonia*. To fully validate this point, though, it is important to see (from other perspectives) the impact of productive activity on the moral character of our lives — as we are not merely physical bodies that need energy and shelter, but conscious beings with psychological capacities and needs. Thus, "human life," as I defended in the first chapter, involves these psychological capacities and activities.

C. The Psychological Importance of Productive Activity

In Ayn Rand's novel *The Fountainhead*, the protagonist Howard Roark walks through the first commission he has ever received as an architect, the house for Austin Heller.

> Roark walked through the house. There were moments when he could be precise, impersonal, and stop to give instructions as if this were not his house but only a mathematical problem; when he felt the existence of pipes and rivets, while his own person vanished. There were moments when something rose within him, not a thought or a feeling, but a wave of some physical violence, and he wanted to stop, to lean back, to feel the reality of his person heightened by the frame of steel that rose dimly about the bright, outstanding existence of his body at its center. He did not stop. He went on calmly. But his hands betrayed what he wanted to hide. His hands reached out, ran slowly

[40] Again, by "basic" here I do not mean there are not other aspects of human sustenance, such as nutrition. I mean only that production grounds even these other aspects, since it is by productive activity that humans acquire the food necessary for their nourishment.

> down the beams and joints. The workers in the house had noticed it. “That guy’s in love with the thing. He can’t keep his hands off.”

What is so powerful about this scene is its excellent portrayal of love for one’s work. In this moment, Roark feels as though the “reality of his person” is “heightened” by the building that surrounds him, as it expresses himself, his thoughts, and his judgments. What Roark loves about the building is in part its representing his own creative capacity in concrete reality. At its best, productive activity can give us this sense of superlative joy and a sense of freedom and empowerment. Productive activity, as this scene illustrates, can have enormous psychological importance for us. What I want to suggest here is that this feature of production shows that it need not be experienced as slavish or as an unfortunate burden, but rather has a central value of one’s life.

The human *bios*, and more specifically the virtuous activity that constitutes *eudaimonia*, requires more than material health or well-being - i.e., physical comfort, absence of disease, absence of pain, sufficient nutrition, etc. It might be thought that all I have showed in the previous section is that production is important as an enabling condition for *eudaimonia*, by providing the external goods and resources necessary in the background for *eudaimonia* to be possible. However, to recall the previous chapter, on my view, *eudaimonia* is best understood as a *kind of life*, an instantiation of the human *bios* characterized by a certain activity (virtuous activity). The material self-sustenance in such a life is a *constituent* of that life, not something outside of it that is merely an enabling condition (like oxygen or atmospheric pressure), insofar as it necessarily is itself

directed by rational activity — the rational activity that defines that very form of life. Recall that in the last chapter Aristotle dismissed productive work as "slavish," and instead sought an activity that can be pursued for its own sake. I suggested that work could meet this condition, in the sense that being guided by the excellence of work is choosing and pursuing it for the reason that the activity exists to begin with. So, to use the above example, Howard Roark is motivated by architecture because he is motivated by excellence in architecture, which is to say that he is appreciating the specific way in which excellent architecture enhances human life (e.g., by enhancing our experience of structure and harmony in physical spaces). But importantly, Roark is motivated by this excellence in a deeply personal way, that maintains his psychological engagement with his work over time, drives his ambition, and gives him enduring joy and self-esteem. In other words, the his career as an architect allows him to experience his life as an end in itself, a life based around architecture that is worth pursuing because of what makes it worthwhile (the way it enhances human life in general, and his life in particular). This perspective is crucial if one's life is not to be experienced as a series of instrumentally useful activities, for instance a life guided exclusively by pursuing more and more pleasure or more and more money, with no end or ultimate goal in sight.[41] It is true, and important to note, that other important values in life can give one such an experience. My claim is not, therefore, that

[41] This, I take it, is the view behind Aristotle's rejection of the life of money-making in Book I. I do not think a life based around money-making necessarily has this component; for instance, entrepreneurs have to be centrally focused on making profits and raising funds for investment. However, I take it the point is that one can have the flawed perspective that one's main goal is the accumulation of money, full stop, and if Aristotle is right, as I argued in the third chapter, such a life will lack a crucial structural component needed for flourishing: the experience of life as it really is, as an end in itself.

only productive activity can offer this dimension to one's life; other plausible candidates include friendship, art, and romantic love. However, because productive activity plays the central sustaining role and is therefore needed as a foundation or driver of one's other values, it is a crucial source of this experience.[42]

I will leave aside for the moment the state of character that gives rise to pursuing productive activity in this way, since that is the subject of the next chapter. Instead, I wish to stress here that productive activity enables us, in its ideal form, to experience life as an end in itself and our ultimate end, and therefore not just instrumentally. In this way, it allows us to experience life for what it really is, since, as I argued in Chapter II, life (or *eudaimonia*) *is* an end in itself, or in other words is an ongoing process that continues itself — a process in which, for human beings, production is central. I should note here that life being an ultimate value to us is just another perspective on the very same phenomenon that life is self-sustaining, in the sense that life can only be self-sustaining because it is an ultimate value to the organism living that life.[43] What is being sustained is the whole life, and to understand all the functional elements as sustaining the whole is to understand them guided towards the ultimate end of preserving the whole organism. So, productive activity from one perspective enables an experience of one's life as an ultimate end and simultaneously an experience of one's self-sustenance.

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[42] The point here is that productive activity is so central to our lives by materially sustaining our activities that how it is experienced is crucial to the character of our lives as a whole.

[43] See Ayn Rand, "The Objectivist Ethics," for a clear presentation of this argument.

This is the psychological perspective on self-sustenance I previously indicated: by enabling life to experienced as an end in itself, I mean that productive activity is a central means by which we achieve and maintain an authentic and autonomous self and a sense of one's life being purposeful and worth living.[44] In this sense, productive work's capacity for this experience is inextricably bound up with our psychological well-being. On my view, to the extent that one is engaged, joyful, and motivated, and finds meaning and purpose, one is psychologically thriving; to the extent that one is disengaged, unmotivated, suffering, lacking in a sense of purpose or meaning, one is in a state of psychological failure or decline.[45]

There are different dimensions along which we can measure psychological sustenance, but here I shall to focus on just two (perhaps the two most fundamental): pleasure

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[44] I do not say it is the *only* means. Romantic relationships, friendships, hobbies, traveling and adventure, and physical games and exercise can all provide means for expressing and developing our sense of autonomy and authenticity and aid our motivation for living. However, without productive activity I am skeptical that these can provide more than a suboptimal mode of living. Interestingly, John Rawls in *A Theory of* Justice believed that a social mode of living (e.g. based around casual activities or hobbies) could ground self-esteem, but later came to reject that view in *The Law of the Peoples* to claim instead that "we cannot merely hope that if people cannot find meaningful work, they can get self-respect from other activities, such as chess or softball." Another interesting case is retirement, which in my view actually support my contention: often, in retirement, a major issue people face is continuing to find a sense of purpose and direction: See Patrick Hill, Nicholas Turiano, "Purpose in Life as a Predictor of Mortality Across Adulthood" in *Psychological Science*. Much common advice includes volunteering, learning new skills, or protecting investments for one's heirs or future generations, all of which can constitute production (albeit outside the scope of a career). It is no accident, in my view, that retirees are 40% more likely to experience depression than those who are still working. See "Work Longer, Live Healthier: The relationship between economic activity, health and government policy," Institute of Economic Affairs. Additionally, I would argue that retirement is to a large extent made meaningful and joyous *in virtue of* one having lived a life based around production.

[45] I take it that these are not particularly controversial parameters of psychological well-being, since similarly framed conditions are frequently found in the literature: see Ryff, C. D. (1989). "Happiness is everything, or is it? Explorations on the meaning of psychological well-being". *Journal of Personality and Social Psychology*. **57** (6): 1069–1081, Diener, E. (2000) "Subjective wellbeing: The science of happiness and a proposal for a national index," *American Psychologist*, 55, 34-43.

and motivation.[46] I shall use these, in turn, to show how production can be experienced as an end in itself (by focusing on the kind of pleasure productive activity offers), and how productive activity makes our lives self-directed (by focusing on how it can sustain motivation).

There are two relatively recent trends in contemporary psychology that I wish to use to illustrate these two dimensions. The first recent trend I wish to explore, in connection with the dimension of pleasure, the exploration of "flow" by Mihaly Csikszentmihalyi, which began in the mid-1970s. Productive activity, I shall argue, is particularly well-suited to create the conditions for psychological flow, which are highly beneficial in experiencing enjoyment, growth, and self-esteem. The concept of flow is thus a useful characterization of the way in which productive activity can characteristically create pleasure in one's life, in way that is tied to an open-ended pursuit of growth and cognitive engagement.

The second is self-determination theory, which is a broad framework for understanding human motivation. I argue that the basic conditions supporting self-determination are conditions that are themselves brought about through productive activity. From this perspective, we can see more clearly how production can underwrite a life's self-directed character.

[46] There are other dimensions of psychological sustenance that are worth addressing but I won't here, for instance integration (consistency of values/beliefs) and self-esteem.

II. Production as an End in Itself: Flow

Beginning in the late 1970s, the psychologist Mihaly Csikszentmihalyi has explored the conditions in which people are absorbed in and intrinsically motivated by the activities they are doing. In such situations, individuals experience a high level of enjoyment in doing the activity. For instance, this might be experienced by a woodworker happily carefully crafting chair for hours, or a violinist joyously performing a highly complex and lengthy piece, or an entrepreneur obsessively considering different business strategies. In contemporary psychology, this flow state - a state of intense focus and creative engagement - is seen as highly correlated with happiness, personal growth, and self-esteem.[47] Csikszentmihalyi has found that flow states involve six characteristics: 1) Intense and focused concentration on the present moment, 2) merging of action and awareness, 3) a loss of reflective self-consciousness,[48] 4) sense of personal control or agency, 5) distortion of temporal experience, 6) experience of activity as intrinsically rewarding.[49]

Productive activity is one of the central avenues (and, I would argue, the ideal avenue) in which people can experience this state of flow. For example, one might experience flow while helping a client in determining the best interior design options for a cer-

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[47] See also Bonaiuto M, Mao Y, Roberts S, et al. "Optimal experience and personal growth: Flow and the consolidation of place identity." *Front Psychol*. 2016;7:1654.

[48] Clearly, many of the examples I have used of productive activity involve activities that may involve significant components self-consciousness, such as reflections on one's purpose and goals regarding work. My view is not that production must always have this component to create its distinctive psychic value, but rather that production in its best forms characteristically make this possible at certain times and in certain contexts.

[49] Mihaly Csikszentmihalyi *Flow: The Optimal State of Experience*.

tain house. Or in playing professional basketball. Or in doing field research in biology. In each of these situations, the person involved can feel an intense concentration and loss of sense of self, fully in control, a sense of time passing very quickly, and a distinct sensation of pleasure, in the sense of being in harmony with or unimpeded in one's activity.[50]

While people may experience flow in other areas, such as hobbies or casual sports, the level of engagement, the time commitment and optimality of challenge possible in productive activity often makes it the best candidate for achieving a flow state in life. Csikszentmihalyi identifies the three main conditions for flow as: 1) clear goals, 2) immediate feedback and 3) balance between level of challenge and one's abilities. Why are these needed? Clear goals are necessary to maintain focus, which is important for maintaining absorption and concentration in the activity. immediate feedback is important because it allows one to measure one's own progress and assess one's work. If feedback is too distal (e.g., I never evaluate my work, or get third-personal feedback until much later), then it is difficult to achieve a sense of skill-development or expertise. Finally, flow happens when we feel optimally challenged by an activity - the activity in question can be neither too easy nor too difficult. This is because in activities that are too difficult people are likely to become frustrated or otherwise disengaged. In activities that are too easy, people are likely to lose focus, e.g., by distraction, and unlikely to feel the activity is rewarding and meaningful.

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[50] This is the characterization of pleasure that Aristotle offers in Book X of the *Nicomachean Ethics,* especially X.4.

Obviously, the activity of production does not always lead to flow, especially in non-ideal circumstances. While working, one may experience constant distractions, lack of feedback, unclear goals (either from oneself, or the organization one is working for), and the work might be too easy or too difficult. The well-known "creative block" faced by artists is one such example of failing to create flow conditions, as might be the experience of working for a company with inept or inconsiderate management. However, any field of work can in principle involve jobs that meet these conditions, and so in principle maximizing opportunities for psychological flow can be a powerful framework for understanding how best to pursue productive activity for either oneself or others (e.g., in a firm or group working environment). The point then is not that production *necessarily* creates flow, but rather that productive activitys is necessarily a kind of activity in which flow can in principle be achieved.

What's interesting about "flow" is that it offers a helpful way to understand *how* work is pleasurable. And indeed, this is crucially important. Because if productive activity is to be a central constituent of *eudaimonia*, it must in general or characteristically be pleasurable: it must be something that can excite us, energize us, and be rewarding and engaging.[51] Happiness requires and involves pleasure, and no central constituent of *eudaimonia* could be an activity that characteristically causes pain, misery, or other psycho-

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[51] Again, this must be understood within the context of forms of productive activity that are excellent, or rather excellent on the continuum of excellence. The virtue that I argue makes productive activity excellent, creativity, will be discussed in the next chapter.

logical deficiencies or obstacles.[52] This does not mean that production must be characteristically pleasurable in a simple physical sense (though it may at times have this feature). And indeed, that's what we should expect: there are many times in the process of productive activity that it can be physically demanding or taxing, or mentally very difficult — and the same can be said about virtuous actions more generally.[53] Rather, what flow captures is a sense of engagement, focus, and sense of continual growth and achievement.

This in fact recalls interesting remarks Aristotle makes about pleasure, which are helpful for understanding this form of pleasure and engagement. First, for Aristotle pleasure is closely associated with a certain kind of activity (or an aspect of activity), as he makes very clear in Book X of *NE*: "pleasure does not occur without activity, and pleasure completes every activity."[54] What Aristotle has in mind is that for any activity, whether it is perceptual or in thought, there is a certain kind of pleasure that can be associated with that specific activity when it is complete and unimpeded.

> … the pleasure proper to an activity enhances it, because those who engage in activity with pleasure show better and more accurate judgement. It is people who enjoy geometry, for example, who become geometricians and understand each aspect of it better, and similarly lovers of music, building and so on improve in their own proper sphere by finding enjoyment in it. And the pleasures enhance the activities, and what enhances an activity is proper to it; and what are proper to things different in species are themselves different in species. This is even more evident from the fact that activities are hindered by pleasures arising from different activities. Lovers of the flute are incapable of paying attention to a discussion once they overhear someone playing the flute, since they find more enjoyment in flute-playing than in their present activity; so the pleasure connected with the flute ruins the activity of discussion.[55]

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[52] Aristotle, *Nicomachean Ethics*, VII.13.1153b1-1154a1.

[53] See Julia Annas, *Intelligent Virtue*, where she explores this idea in depth.

[54] 1175a20-1.

[55] 1175a30-b6.

As Sarah Broadie helpfully elaborates in her discussion of this passage, enjoyment of activity perfects it in the sense of making it "finer, [and also] perfects it in the sense of strengthening it against competition. And this dual development is rooted in the subject's perfect, in the sense of *full*, absorption, which maintains and increases its own fullness by making the activity more interesting to a subject ever more keenly attuned to respond with the appropriate interest."[56] Sarah Broadie goes on to say that from this perspective, pleasure in *NE* is important because it is a form of pursuit of activity and value-affirmation.[57] I think this is quite right, and integrates nicely with the idea of "flow." This is because in a state of flow, one's engagement with productive activity and development of skill through achievement is precisely a kind of unimpeded activity and value-affirmation of the activity. It is unimpeded in the sense that one experiences no disharmony of goals or unresolvable deliberative conflict, and one's full attentive engagement with the activity and its excellent performance is an expression of its value to oneself.

Secondly, and relatedly, for Aristotle we find activities pleasant when we excel at them. This is important for Aristotle, because it is part of his explanation of the moral psychology of virtue. A virtuous person, for Aristotle, is a person who loves her own reason and loves obeying it.[58] This is a clear sense in which we can understand how the virtuous agent's non-rational part of soul harmonizes with her rational part: they are in har-

[56] *Ethics with Aristotle* 337.

[57] *Ibid*., 338.

[58] 1168b34-5.

mony because the virtuous agent loves (i.e., has a non-rational attachment) to her rational part.[59] This particular way of conceiving the relation, defended by Jozef Mueller, is insightful in that it helps us see how exactly for Aristotle it is that the virtues are developed, and how they are developed alongside practical wisdom. The non-rational part of the soul is made up of desires for that which is pleasant,[60] and therefore for the non-rational part to desire good or correct reasoning is to find it pleasant. On Müller's model,

> virtue of character centrally involves a habit of using one's reasoning (EE 1248a36-7) to guide one's actions and feelings. This habitual state is manifested as a felt need or desire to subject one's non-rational desires and feelings to deliberation in which one not only finds out how to satisfy them but also evaluates their goodness and modifies them as appropriate.[61]

Mueller's characterization makes sense of how the virtuous person constantly adjusts her appetites in the various situations she finds herself, according to how she deliberates and pursues values. For instance, the generous person needs to calculate what kinds of gifts and sharing are appropriate given her wealth and possessions and her desires need to follow suit according to these determinations.[62] So we can take Aristotle quite literally when he says that finding "enjoyment or pain in the right things…is the correct education."[63] One gains pleasure in excelling at good deliberation, and the development of excellence

[59] 1166a9-17.

[60] *Rhet*. 1380a18-27.

[61] "Aristotle on Virtue of Character and the Authority of Reason," 34-5.

[62] 1120a24-b4.

[63] II.3 1104b11-13.

in good deliberation constantly involves an attachment to good deliberation, which allows it to continually be cultivated and improved upon.

This model of enjoyment and engagement leading to greater aptitude seems applicable to acquiring skills in productive activity; i.e., developing or participating in a craft. In general, to make enduring progress in a craft, one needs to enjoy the work one is doing at some level: "those who are fond of music, or of building, make progress in their work because they enjoy it."[64] If we understand "flow" as capturing an important way that work can be pleasant, this is a good way to see its connection to cultivating productive activity and continued engagement with it as an ongoing value. Thus, the capacity of productive activity to enable conditions of flow can lead to a virtuous cycle of engagement and skill-development in one's work, which then leads to greater engagement and skill-development. Construed in this way, the project is clearly open-ended: there is always more possibility for novel problem solving, greater challenge, greater skill-development, etc., within the domain of a craft, whether it is, e.g., computer-programming, management, filmmaking, or political leadership.

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[64] 1175a34-5.

III. Production and Self-Direction

a. Self-Determination

A moral character and healthy mental life are crucial components of *eudaimonia*; and just like one's physical health and material comfort, one's character needs continual self-directed activity in order to be sustained. A key component of one's psychological sustenance is one's *motivation* to achieve happiness and a moral character. By motivation, I mean here energized and persistent goal-directed behavior towards the achievement of values.[65] Consider the difference between the following two people. On the one hand, Howard wakes up each day ready for a new challenge, excited at the prospect of using their mind to solve new problems and challenges, prepared to make mistakes and need to learn but fully confident of his own capacity for achievement and growth, and relating to others as potential sources of knowledge, collaboration, and joint goal achievement. Consider by contrast Stephen, who feels lethargic, senses himself incapable of achieving goals, executing plans, or achieving happiness, anticipates making terrible mistakes and disastrous failures, and sees others as obstacles to his well-being (e.g., "the world is against me") and competitors in a zero-sum game and not to be fully trusted. For Howard and Stephen, respectively, their capacity to formulate and achieve meaningful goals, and consequently to achieve a moral character and a life of happiness, will be very different. Howard's path in life is likely to feel more natural and less painful, and he is likely to ex-

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[65] I am here modifying a definition from *Understanding Motivation and Emotion, 7th Edition*, John Marshall Reeve. I added the value component, in order to stress that I wish to rule out compliance with threats or physical violence as motivated, even if they are persistent.

perience more growth and positive development, because he will not back down from challenges, will look for opportunities for gaining knowledge and collaboration, and will take pride in his achievement. Stephen, by contrast, will find it difficult to meet challenges and pursue growth, will turn down opportunities or back down from challenges, and will be unlikely to foster healthy collaborative relationships with others. Even if Stephen does achieve some of his goals, his ability to take pride in that achievement will be limited, since he is more likely to attribute such achievement to a change in fortune rather than his own ability. In this example, Howard is faring much better as far as psychological health and sustenance. He is in a better position to achieve and sustain a moral character, feels more autonomous and in control of his life, and takes greater pleasure in himself, his achievements, and his interactions with others. This, in effect, is the central concern of Self-Determination Theory: how do we ensure the conditions to maximize intrinsic motivation and best realize our psychological well-being?

Self-Determination Theory (SDT) is a meta-theory of human motivation and personality development that uses traditional empirical methods to identify the growth tendencies and basic psychological needs that form the foundation for self-motivation and personality integration.[66] This relatively recent development in the study of human motivation has proven very powerful for understanding the conditions under which human beings are self-motivated and undergo healthy psychological development (e.g., healthy self-regulation), and has been supported by research across a wide variety of domains,

[66] Deci and Ryan, "Self-determination theory," 2000.

from child development, healthcare, physical exercise, activism, and intimate relationships.[67] The core needs identified by this meta-theory are: competence,[68] relatedness,[69] and autonomy.[70] According to Deci and Ryan, the founders of SDT, these core needs elicit and sustain self-determined motivation.[71] What is self-determined motivation? Self-determined motivation, on their view, is motivation that is internalized and integrated into one's sense of self. This category is wider than intrinsic motivation (performance of an activity for the inherent satisfaction of that performance) and extrinsic motivation (performance of an activity in order to attain some separable outcome), since both intrinsic and extrinsic motivation can count as self-determined, on their view.[72] Consider a student doing math homework. That student might be motivated to do it in a number of ways. First, she might be motivated intrinsically, perhaps the student simply enjoys solving math problems and understanding them, and would do it regardless of whether it was required for her grade. Or, secondly, she might be doing it primarily because her parents wish it of her, even though she sees no value in it and thinks it is a waste of time. However, in a third scenario, even if she is not intrinsically motivated to do it, she might recog-

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[67] Generally, the evidence referred to here (see (Ryan et al., 1997 and Deci and Ryan 2000 for summary) shows positive outcomes in terms of behavioral effectiveness, volitional persistence, enhanced subjective well-being, and better social assimilation.

[68] Harter 1978, White 1959.

[69] Baumeister & Leary, 1995, Reis 2000.

[70] deCharms 1968, Deci 1975.

[71] Deci and Ryan, 1985.

[72] Ryan & Connell, 1989; Vallerand, 1997.

nize the value of doing the work for her own career and meaningful goals (which she *is* intrinsically motivated by), and experience and integrated regulation of the activity of the homework. In that case, it is "assimilated to the self" and brought into congruence with one's other values, even if still extrinsically motivated. The first and third of these would count as self-determined according to SDT.[73] As one would naturally expect, self-determination on this theory exists on a continuum, with varying levels of possible integration of extrinsically motivated activities. Discussion of these is beyond the scope of my aim here, though it is no doubt important. Instead, I wish to focus on the most self-determined form of motivation (intrinsic motivation), and secondarily on extrinsic motivation that still counts as self-determined (hereafter integrated regulation). In what follows I will discuss the three core psychological needs that SDT identifies and how productive activity offers a central domain in which these needs can be realized and nurtured, and therefore that engagement in productive activity (and conditions that make production possible) is a central mechanism by which self-determination can be fostered. Of course, engagement with productive activity, in its best form, requires high levels of autonomous motivation. Therefore, I am not suggesting simplistically that productive activity solve's one's psychological needs, full stop. Rather, the psychological requirements for self-determination and the domain of productive activity co-develop and co-evolve together in a mutually reinforcing relationship: productive activity fulfills these needs, which in turn by being met create ideal conditions for further self-determination, part of which includes

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[73] Deci Ryan 2000 72.

the motivation to reach one's potential in production (in addition to pursuing achievement of other values such as relationships, physical health, etc.). According to SDT, these needs must be jointly satisfied to promote self-determination. For instance, conditions of competence but lack of autonomy or relatedness can lead to feelings of oppression or isolation and external pressure from others. Conversely, relatedness without competence can lead to feelings of anxiety, doubt, or over-reliance on others, which diminish self-determination.

i. Competence

Competence is an organism's capacity to interact effectively with its environment.[74] This includes, for instance, the development of motor skills, ability to anticipate outcomes, ability to communicate needs or instructions to others, the capacity to identify and solve problems, and so on. To achieve self-determined behavior, one needs both to have competence in this sense and be aware of it. To do this, one needs to be in a situation where challenges are being met, but skills are also being put to the test or stretched somewhat beyond their existing limits. As Edward Deci puts it, "the feeling of competence results when a person takes on and, in his or her own view, meets optimal challenges."[75] Challenges must be optimal in the sense that they cannot be trivially easy,

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[74] Robert White, *The Concept of Competence*.

[75] Deci and Flaste, Why We do What We Do. 66.

because competence is associated with an identification of achievement.[76] For the same reason, they cannot be trivial full-stop (at least from my own perspective): even if counting the blades of grass in my lawn is extremely difficult, I cannot gain a sense of competence from doing so if I cannot see it as a value-achievement.

How does productive activity provide a domain wherein competence can be realized? Basically, through a continual demand to develop new skills, formulate new integration of knowledge and evaluation, trial and error, revising mistakes, etc. In other words, productive activity is the central domain in our lives in which we have an opportunity to continually develop and exercise competence with plenty of feedback and space for self-evaluation and growth. Take for instance, a composer writing music for film. She might learn at the outset, with her first film works, that she lacks a good understanding of how to make the music carry a narrative arc. Assuming the challenge is optimal (i.e., the particular film project is neither too long nor too difficult for her particular competence in composition), she can experience competence through trying different methods, reading about ideas from other composers for inspiration, practicing new approaches with her instruments, and so on. Over time, as her skills develop, she is able to take on more difficult films, is able to compose for more instruments and with longer pieces, can better understand the narrative structure of film music, and so on and so forth.

Clearly, competence can be and is developed in a number of domains in human life, which fall outside the realm of production. For instance, many people experience

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[76] *Ibid*.

competence in intimate romantic relationships by developing communication skills, developing their capacity to be romantic, excellence at joint planning with a partner, cultivating sympathy and empathy, and reaping the rewards of that work in authentic connection and physical pleasure. However, competence in intimate relationships is a poor candidate to be a *central* mechanism of achieving competence in one's life. First, though many human beings pursue intimate romantic relationships, not all do, and even for those who do, there are many periods of life for most people in which one lacks such a relationship but still needs competence. Secondly, the demands of human life require that we spend a much greater portion of our time in production than on romantic relationships, since romantic relationships by themselves do not produce material values to sustain us. This means that as a basic matter the opportunities for skill-development, feedback, and growth are going to be far more numerous and consistent in the realm of work.

ii. Autonomy

The second basic need required for self-determination is autonomy, understood as personal causation: that the locus of the initiation of one's behavior is within oneself rather than in some external control.[77] Clearly, autonomy in this sense exists in degrees — the degree to which one's activity is guided by one's own independent decision-making.

[77] *Ibid*, 30.

Productive activity is an important domain in which we can experience and cultivate autonomy. For instance, in a market economy, individuals experience autonomy through choosing their field of work or a particular job (with a varying degree of options given their circumstances). Depending on the specific field of work, in most fields greater skill development, time investment, and growth lead to greater and greater levels of autonomy, whether it be in the form of management, initiating projects, greater responsibilities and opportunities for restructuring, etc. Moreover, there is often opportunity for individuals in contemporary Western society for some form of self-employment, whether in the form of starting a small business or free-lance work, which allows for high amounts of autonomy. As SDT shows us, however, it's not important as such for achieving autonomy that an individual have the final say on as many choices as possible. After all, one can experience autonomy at a company, for instance, even if one's work is highly structured by preexisting projects and management. In that case, what is relevant is the individual's ability to synthesize the values of the company and the work to their sense of self.

Clearly, work can be experienced as non-autonomous, or along a continuum of autonomy. So it is worth remarking in basic terms under what conditions autonomy is or is not realized in work. Andrea Veltman helpfully characterizes three main dimensions along which work can be viewed as autonomous (or not): 1) autonomous choice of work, 2) autonomy within work, and 3) autonomy as independence achieved *through* work.[78] I

[78] Veltman, "Autonomous and Oppressive Work."

agree heartily with Veltman that all of these are important for satisfying the need for autonomy. Ideally, in a free and prosperous society, greater and greater autonomy in the forms of independence achieved through work, and the choice of work itself is made ever more autonomous for a greater number of individuals. What is interesting here, I think, is that it is precisely excellent productive activity - for instance in the forms of innovation, invention, and entrepreneurial activity - that drive the creation of human wealth and prosperity, and thereby make productive activity ever more autonomous in these senses; the wealthier and more prosperous people are, the more easily they can achieve independence through work and the more choices of work they will have. This is quite clear in the United States, for instance in terms of the growing ability to do freelance work and participate in the gig economy, and the ease with which people can change careers, find work in new cities and states, and return to school to gain new skills.[79] Conversely, in less economically developed areas of the world, or in the less developed past of advanced capitalist economies, choice of work is more restricted and it is more difficult to achieve independence through work. For example, we can consider how in less developed economies more people are required to participate in the agricultural sector to survive, due to lack of other opportunities for employment or education.

Veltman notes that

> beyond self-expression of individual personalities, work can support or stifle autonomous agency in the respect that work itself permits opportunities for conceiving and carrying out projects, exercising forethought and judgment, making decisions, taking responsibility for decisions,

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[79] Freelancing in America Survey 2017, Mckinsey Global Institute, Independent Work: Choice, Necessity, and the Gig Economy, Executive Summary, 2016.

> forming or refining goals, planning methods by which to accomplish goals, adjusting goals and methods in light of experience, and so forth."[80]

Examples Veltman uses include cases where simplistic physical movements of employees are automatized and individual judgment and thought are discouraged or made irrelevant, or work goals are highly regimented and closely following executive decisions from management. While I would agree with Veltman that these are important dimensions of working conditions that may be limitations on engaging in it in an excellent way, it is important to note that a particular job's having this characteristic for a person at a given time does not necessarily undermine autonomy more broadly considered, or considered from a wider perspective.

This is because one's relation to production is not exhausted by a particular job or circumstance, but rather by a career or set of developments of work over time, which may at any one time include work that is less autonomous or intellectually independent than at other times. Consider for instance that a student going to college to work as an architect later on may work at a coffee shop to earn enough money to spend on basic essentials while studying, and that this job offers much less opportunity for autonomous engagement than architectural work would. Nevertheless, utilizing the SDT framework, we can see that the work at the coffee shop can still be autonomous from the perspective of its importance as a part of, and towards the goal of becoming an architect. More generally, what is relevant is the full context of one's choices and goals in understanding whether a particular instances can ground autonomy.

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[80] *Ibid*.

iii. Relatedness

Finally, individuals need relatedness to achieve self-determination. In SDT, relatedness is understood in the following way: "the inherent requirement of feeling close and connected to others in the world and of caring for and being care for by them…[it is] reflected in having trusting relationships with significant others and having a sense of belonging to valued groups or organizations. Social environments provide relational supports to people by relating openly and authentically to them and by expressing care and concern."[81]

What is relevant about production as it pertains to relatedness is that productive activity, at its best, offers a central domain in life in which we can collaborate with others, engage with others in the use of their imaginations and decision-making, learn from others, and participate in joint achievement. For instance, by working for a company whose values you admire or whose projects you find highly compelling and worthwhile, you can experience and sustain relatedness to coworkers in the company owing to that shared sense of value and mindset. In other cases, such as apprenticeship or internship, productive activity can involve relating to others through learning, in which one values others as teachers, mentors, or guides in developing skills. In yet other cases, in freelance work or more independent work, one relates to others perhaps through more independent or smaller-group collaboration, for instance when a freelance photographer is hired for a

[81] *The Human Quest for Meaning: Theories, Research, Applications,* Paul T Wong.

small photoshoot. For such independent collaborations to succeed, each person involved must have a shared respect and understanding of the others' contribution, which promotes relatedness by relating to others authentically.

Owing to the limited space I have here, I can only summarize observations and offer a general sketch of how my view of productive activity ties into the SDT framework. There is of course much more that could be said, for example about the extent to which other kinds of activity besides productive activity can meet these basic psychological needs, whether other psychological needs are also important, and the extent to and ways in which oppressive work undermines these psychological needs. Again, what is important for my purposes here is that the activity of production, in which humans create values through mental integration and self-directed thought is the central means by which human beings are able to realize the basic needs that ground our capacity for self-determination, understood as an ideal motivational state.

IV. Recapitulation and Clarification

In Chapter II, I argued that *eudaimonia*, understood as a kind of life-activity, must involve a self-sustaining component. Thus, in looking to characterize the kind of life that could be *eudaimon*, we must seek out one that includes such a component. While Aristotle believed that a life of productive activity could not be *eudaimon*, we found his reasoning to be flawed from several perspectives, in particular his view that productive activity must be slavish, and that one can fully demarcate productive and practical activity

as separate activities. In this chapter, I have argued that the best candidate for the self-sustaining component of *eudaimonia* is the activity of production. Productive activity, understood as "independent mental functioning that produces value that contributes to human sustenance and/or the enhancement of existing human values," grounds both the material and psychological sustenance of the human *bios*, facts which can be demonstrated on both a societal/historical level and on a personal or individual level. Production grounds material sustenance because it is the ultimate source of human wealth: of the technology, nutrition, safety, and comfort that allows us to physically thrive. Productive activity grounds psychological sustenance because it is the central activity by which we create and sustain an authentic and autonomous self and a sense of our lives being purposeful and worth living. We can measure this sustenance, among other ways, by looking to the way production makes possible ideal motivation (grounding purposefulness, authenticity, and autonomy) and an important and unique form of pleasure. This perspective allows us to further see why a life of productive activity fulfills the formal constraints of *eudaimonia*. First, the unique form of pleasure production can offer us gives us a way to experience our lives as an end in itself (and as an activity that is chosen for its own sake, in Aristotle's sense). The same considerations from which Aristotle showed that a life primarily oriented towards maximizing money or social status are defective, and a life guided by practical excellence is *eudaimon*, can be used to argue that productive activity properly allows us to experience life's true teleological structure. The capacity for production to underwrite self-determined motivation shows how it can make our lives self-

directed: productive activity involves the conditions under which one can experience competence, autonomy, and relatedness to others, that together sustain and cultivate self-determined motivation.

I wish to stress that all of these points are closely interconnected: production's sustaining capacity is also part of what makes it self-directed, for instance. Since productive activity is what sustains *eudaimonia*, one's *eudaimonia* is directed or underwritten by oneself insofar as one engages in productive activity to sustain one's life — from this perspective, exploiting the productive activity of others (e.g., in slavery) undermines one's self-direction. Additionally, production's capacity for grounding ideal motivation is clearly related to the characteristic form of pleasure that results from productive activity in flow, since part of what the flow state captures is a state of highly self-determined motivation.

At this stage, I would like to anticipate a possible objection. It might be thought that all I have shown is that production needs to be done *in general* for humans to flourish. That doesn't entail, by itself, that each individual human needs to engage in productive activity to flourish. One might make this objection even while conceding that a life centrally involving production could be a good life, but denying that it is the only kind of life that is worthwhile. To take an analogous argument, one might show (quite easily) that human reproduction is necessary for the sustenance of the human *bios*. If no humans decided to have children, the human species would die out (setting aside, for the moment,

science fiction hypotheticals). Clearly, it does not follow from this that *all* humans must engage in or partake in reproduction to live well according to the human *bios*.

Such an objection misses the philosophical significance of the fact that production is essential to the human *bios* not simply as a general precondition but as essential to any particular human being living a human life. We have material and psychological needs that must be fulfilled by productive activity — needs for material well-being, safety, and comfort, and psychologically healthy and purposeful engagement with the world through productive achievement and collaboration. This fact means that production is inescapable for the project of flourishing, and therefore one either does it oneself or exploits the productive activity of others (as in by slavery, or undeserved inheritance, or theft).[82] Given that this is the alternative, what remains to be shown is whether a human being can flourish by exploiting the production of others. I argue that one cannot, both for the reasons that such an individual could not enjoy the actual psychological benefits of productive activity nor achieve the crucial virtue of creativity (as I will discuss in Chapter V). This is not surprising, since one of the key insights of the *bios* approach (which it shares with the Neo-Aristotelians) is that we can understand the requirements of individual flourishing by looking to the requirements of human flourishing in an abstract standard.

What of the analogy to human reproduction? Human reproduction is certainly part of the human bios, but only in the general sense that it is an activity that some humans

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[82] As I explained in Chapter II, any genuine (non-fraudulent) trade involves an exchange of value that preserves a connection between one's creative work and one's self-sustenance, even though it is now made more complex. In the next chapter, I go into greater detail into the psychological consequences of losing out on the value of production.

must engage in for human life in general to continue, but not for the continuation of any particular human life. In other words, the analogy falls apart insofar as there is no requirement of reproduction for a particular human to sustain their life. We may say then, that reproduction is an external condition of the human *bios* (in the sense that reproduction must happen in some way for human life to be possible, even if it were, e.g., made possible by artificial intelligence as in the film *The Matrix*). It is true that the rearing of children in the human way is an important and central human activity, though, and therefore it is appropriate to regard its existence as important for human flourishing. However, the fact that some people choose not to have or raise children does not thereby make them exploiters or parasitical on the people who do have children, since the people who do have children (in a just society) do so out of choice and because they perceive it to enhance their own individual lives.[83]

So far, I have focused primarily on the activity of production considered apart from the character of the agent engaged in it. This will come in the next chapter, wherein I defend the conception of creativity as a virtue. What I ultimately wish to defend is the idea that for productive activity to be acquired and preserved as a value in one's life, i.e., to fully or excellently realize the value-potential of productive activity, one needs to have

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[83] Of course, we might observe that in a particular relationship, where a couple (e.g., a man and a woman) are raising a child, the non-participation in childrearing on the part of one of the partners may constitute an exploitation of the other owing to the nature of the responsibility. This is an important perspective on feminist critiques on the division of labor in child care. See, e.g., Nancy Folbre and Susan Himmelweit, "Children and Family Policy: A Feminist Issue," *Feminist Economics* Vol. 6, 2000: 1.

and exercise this virtue. In addition, creativity requires other traits of character that are already recognized as virtues.

V. The Virtue of Creativity

In this chapter, I wish to defend a conception of creativity as a virtue — the virtue that corresponds to the value of productive activity in a flourishing life. The idea of creativity having a role in ethical thought or activity is not particularly new.[1] Indeed, creativity's importance in ethics has been discussed in a broad sense by several contemporary philosophers[2] and is in some ways suggested even in Aristotle.[3] This importance is seen by the fact that applying ethical principles to one's life (for instance, cultivating, practicing, and learning the virtues) require applying them to new situations and learning about oneself in order to properly habituate them, both of which are creative endeavors insofar as they require novel and appropriate thinking (terms I will explain shortly). So, for instance, the demands of the virtue of justice are not at all obvious in all contexts, and creative thinking is often needed to figure out how to act justly in a given circumstance; for instance, the judgment of a person of mixed character. Such thinking would be broadly "creative" in the sense that it may involve making new integrations, seeking out new evidence, restructuring one's thinking, etc. in reaching a judgment about that individual.

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[1] Most famously of these is clearly Nietzsche; see Alexander Nehamas, *Nietzsche: Life as Literature*, for a fascinating exploration of the role of creativity in Nietzsche's ethical thought.

[2] For instance, see Mike Martin, *Ethics in Engineering* on "moral creativity" as innovation that is morally relevant, and several different perspectives on the relation between the two within *Creativity and Philosophy,* Matthew Kieran, ed.

[3] In the broad sense to which it may apply to Aristotle, I mean the sense in which for him practical wisdom cannot be taught but must be based on experience, since it deals with inexact principles and situations that cannot be foreseen in advance (*NE* VI.10, 1143a).

This perspective, which as I understand it is largely shared by the virtue-theoretic tradition, is an important theme in Christine Swanton's work. On her view, creativity is "an aspect of the profiles of the virtues,"[4] and in that sense not a virtue concerned exclusively or primarily with production, but relevant for courage, generosity, benevolence and so forth.

However, I will focus here not on creativity in this broad sense, but rather more particularly as it relates to production; more specifically, how this virtue is crucial for cultivating the value of productive activity and engaging in it excellently. On my view, productive activity is the central application or expression of creativity, and the one most important for my purposes here.[5]

What then is creativity? On my view, creativity is a disposition of character involving a grasp and love of the value of productive activity in one's life.[6] Production, therefore, is properly understood as the field of activity where creativity is relevant. Acting from creativity means pursuing appropriate novelty and intelligent engagement in productive activity as far as one can, and seeking to sustain one's life through

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[4] Christine Swanton, *Virtue Ethics: A Pluralistic View*, 167-8.

[5] In this sense, my argument for restricting the conception of "creativity" to a virtue concerned with productive activity is that it promotes an epistemically clearer perspective on the issue. I do not have a substantive disagreement on this point with Swanton's view, except that I would hesitate to call creativity an aspect of all of the virtues for precisely the reason that not all virtues are concerned with production; there is indeed an aspect of all the virtues that involves independent thinking, however; we may then understand this as the virtue of independence, which incidentally was identified by Ayn Rand.

[6] This formulation is intentionally set up to express the two aspects of virtue: intellectual grasp and emotional resonance.

production.[7] Creatively integrating and cultivating the value of productive activity in one's life involves two central components, which we may call the *poesis* (production) component and the *techne* (craft) component.[8] These correspond roughly to the material and psychological aspects of production's sustaining role in eudaimonia.[9] Each of these components can be understood as a requirement for possessing the virtue, (corresponding to "targets" of the virtue) and hence for approaching production in an excellent way.

The *poesis* component of creativity demands that one seek out work that materially sustains one's life and makes one's continued activity possible, i.e., "earning one's keep." In an advanced society with significant division of labor, this means having a certain appreciation or sensitivity to the economic value of one's work, in order that it may be traded with others.

The *techne* component of creativity demands that one pursue novel and appropriate values *within* one's work, through cultivating the appropriate skills (both creativity-relevant skills and domain-relevant skills) and through seeking work in which one is in-

[7] This conception of "creativity" is inspired in large part by the work of Ayn Rand and her notion of "productiveness" as a virtue. Where I differ from Rand is in emphasizing somewhat different components and of course the use of the term "creativity." However, I believe my view of "creativity" is in broad agreement with her view of "productiveness." There is a different form of emphasis in my view, and a different account of its cognitive components.

[8] I deliberately use Aristotle's terminology in discussing productive activity because I think they help illustrate the sense in which creativity demands seeking both material (or existential) and psychological sustenance in creative work. *Poesis* means bringing artifacts into existence.

[9] I say "roughly" because the material and psychological components of creative work's sustaining power are in some sense inextricably linked; and there can be no production without psychological health nor the spiritual appreciation of a craft without material values.

trinsically motivated and intellectually engaged.[10] This component of creativity makes one's productive activity psychologically and spiritually valuable to oneself as a means of exercising, fully engaging, and improving the abilities of one's mind.

An excellent example of a highly creative individual is Steve Jobs, who's endless dedication to innovation and improvement at Apple allowed that company to become one of the most successful technology firms in the world.[11] He understood the importance of imaginativeness, experimentation, and constantly seeing the bigger picture of making better and better technological products in his field, and thereby expressed the *techne* component of creativity. He similarly exemplified the *poesis* component in his entrepreneurial dedication to make products that he could actually sell and distribute to sustain his life.[12] To use another example, creativity can be seen in a person who experiments to find which sorts of career is most interesting or engaging for them, and then finding it is, say, computer programming, figuring out a way to pursue that career, and acting to understand the

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[10] The point about instrinisc motivation be qualified in two important ways. First, the level at which one is intrinsically motivated by one's work needs to be viewed at the appropriate level of abstraction. There may be individual tasks, such as a composer properly labeling and printing out his scores for musicians to read, that a creative person is not intrinsically motivated to do, as such. What is more relevant in such an example is the intrinsic motivation and intellectual engagement, so far as possible, with composing as a form of creative work. Secondly, creativity may demand at times being engaged in work that is neither intrinsically motivating nor particularly intellectually engaging. Consider again the composer. Perhaps before he can make money from writing music, he must work in various restaurant jobs. Given his chosen field of creative work, it would make no sense for him to seek continually higher intellectual engagement with his restaurant job (although, engagement with the work and appropriate skill at an appropriate level is still important in such a context as a matter of justice in fulfilling one's contractual obligations to an employer). Creativity demands instead that he be oriented towards composition as much as possible, until such a time as this can be integrated with his material sustenance.

[11] Not to be forgotten in the history of Apple is also Steve Wozniak's fruitful dedication to innovation and improvement.

[12] John H. Ostdick, "Steve Jobs: Master of Innovation" https://www.success.com/steve-jobs-master-of-innovation/ See also Walter Isaacson, *Steve Jobs*.

field and how to contribute to its improvement and understanding in new ways. The arts, such as music composition and film directing, also offer excellent examples of creativity in this sense - consider the guitarist and composer Jonny Greenwood and his dedication to pushing Radiohead to the limits of a rock band, while also exploring with texture and technique in his unique film scores. To take a third example, consider the pioneering work in chemistry achieved by the chemist Marie Curie, who was the first person to develop a sophisticated understanding of radioactivity. She struggled throughout her life to achieve recognition and respect for her work, despite its groundbreaking importance; nevertheless, she persevered owing to her love of science and the development of human knowledge.[13]

My view is not that creativity is only had by creative heroes or heroines such as Steve Jobs, Jonny Greenwood, or Curie, but rather that these examples help us see more clearly what creativity involves, and how it can be achieved in our own lives (likely, in a different form). What is relevant for having creativity as a virtue is not the degree of genius, economic value or novelty of one's work, but rather the extent to which one is oriented[14] towards cultivating creative work as a value given one's ability - meeting the standards of virtue does not require having rare or unchosen innate characteristics. This far from suggesting that one's level of mastery in a field or the economic value of one's work is irrelevant; indeed, if creative work is to play the central sustaining role I suggest-

[13] See Eve Curie, *Madame Curie: A Biography*.

[14] Here, I am using "oriented" and "disposed" interchangeably.

ed it does in a *eudaimon* life, an orientation to mastery and economic value will be crucial. For instance, understanding what counts as novel and valuable within a given field, such as the restaurant business, depends upon the state of that field at the time and the local economic conditions in which one is operating. Suppose someone is interested in opening a restaurant showcasing her take on South Indian cuisine. If she pursues this in a creative way, she take care to discover how to make this economically viable (e.g., strive to understand how to harness a possible demand for this cuisine and market it properly) and she will also seek out the skills to develop a certain amount of mastery in entrepreneurship, cooking, etc. What is important here is not an external standard of mastery and novelty per se, according to which perhaps her restaurant is not so different than one that exists a few towns over. What is important is that she is creating a new value in her life and local context that sustains her life psychologically and materially as best she can. Her productive activity is intellectually engaging and challenging and provides a real (life-promoting) value to others. Thus, the virtue of creativity allows for a wide array of possible realizations.[15]

Finally, it must be stressed that a novelty's being appropriate to a domain in creative activity means that often a creative agent is not concentrating primarily on novelty as such, but on activities such as solving problems, improving efficiency, experimenting with methods, etc.; novelty (which may be psychological, or new to oneself, or historical

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[15] Indeed, I regard this as an important aspect of any virtue theory more broadly; virtues as excellent actions must be able to show how general kinds of actions promote a good human life considered abstractly, but they must also be consistent with the achievement of personal values (contra a Perfectionist approach: see Thomas Hurka, Virtue, Vice and Value, Oxford University Press, 2000).

— new to humanity) arises as a consequence of this activity. For instance, an app developer may have ideas for a new app but run into problems in its implementation, because it involves using voice command inputs from the user, which the developer is unfamiliar with. In figuring out how to solve that problem, the developer may need to learn about voice command coding, and in the process discover some possible improvements to voice command coding that will be valuable to others. This novelty may turn out to be historically novel, but its discovery was not directly pursued by the developer. In turn, the psychological novelty acquired through learning about how to code voice commands was a consequence of creative thinking rather than a novelty that was sought for its own sake, since it was in the service of making a great app. Moreover, if the developer was making mistakes during learning this code, she may have made new approaches to code but ones that turn out to be ineffective. A creative developer will not therefore pursue that approach, since her goal is regulated by the requirements of excellence in making apps. So, two qualifications are relevant here: some novelty is a consequence of creative thinking but not directly aimed at, and novelty in creative activity is not separable from appropriateness to a domain except theoretically, since in practice creative activity involves being guided by appropriateness while solving problems or pursuing different approaches in production.

These initial examples serve as an indication of my view. In order to explain more fully what creativity means on my approach, I will first relate my view to the Neo-Aristotelian conception of virtue. I shall argue that in the Neo-Aristotelian tradition, virtue has

two central aspects: an intellectual aspect, and an emotional aspect. I follow this framework in my understanding of creativity: I will show how creativity involves is expressed in these two aspects, and how each is important for attaining and cultivating productive activity as a value. In doing so, I will relate my view to Matthew Kieran's work, who has defended the conception of creativity as a virtue.

Secondly, I shall further bolster this case by showing how creativity requires and implies two other cardinal virtues that are already widely recognized: honesty and courage. In doing so, I find inspiration from the work of Tara Smith on honesty and Paul Bloomfield on courage.

Thirdly, I will relate my view of creativity to contemporary perspectives in psychology and suggest that it is a strength of my view that this research can be brought to bear in understanding how to understand and achieve *eudaimonia*. Conversely, I believe my framework helps define and contextualize creativity's role in a good life alongside other virtues in a way that is helpful for psychological research on creativity.

Finally, I discuss ways in which people can fall short of creativity; in short, while there are different forms that the vice of uncreativeness can take, they each in some way fail to fulfill the *poesis* or the *techne* component of creativity. By doing so, I hope to illustrate my view more clearly by way of contrast.

Before proceeding, a few clarifying remarks on in order. First, creativity being a virtue in this sense means that, as Swanton has helpfully identified, it is *not* exemplified

in cases of psychopathy or evil,[16] since understanding it as a virtue means seeing it as an expression of wisdom or practical rationality that coordinates all the virtues together. Just as we cannot take the “courage” of Walther von Brauchitsch’s actions in the invasion of France by Nazi Germany out of context of the kind of life he lived and the kind of person he was, we cannot take the “creativity” of someone inventing new torture methods out of context, nor the “creativity” of Al Qaeda terrorists carefully planning how to maximize deaths of innocents for the sake of jihad.[17] The context which I will assume for the main portion of this chapter, then, is that of a rational and wise individual engaged in production. The conception of virtue I shall rely on here is not best seen as an “agent-based” account (in the sense that normativity of virtue derives from agents themselves,[18] but rather a “target-centered” account (in the sense developed by Christine Swanton.[19] On that view, to give an account of a specific virtue involves an account of the field of human activity to which it pertains, its mode of responsiveness, its basis for acknowledgement, and its

[16] *Ibid*., 171.

[17] An interesting discussion of such kinds of examples of “malevolent creativity” can be found in 2013, J. Chan and K. Thomas (Eds.), *Handbook of Research on Creativity,* (pp. 185-195), Cheltenham: Edward Elgar Publishing. The arguments in that paper purport to show that creativity can arise in malevolent individuals. In my view, what this merely shows is why there is an important distinction to be made between true creativity (virtuous creativity) and malevolent cleverness or imaginativeness. Clearly, malevolent individuals can be quite imaginative. However, since their activities tend to destroy and undermine human flourishing, it is clearer to think of these as uncreative and destructive rather than as instances of creativity. Ultimately, all actions that are expressed in virtuous activity could be done by malevolent or vicious individuals, which is why virtue involves the right motivations and emotional set. For instance, a politician might use wealth generously to further noble causes, but do it as a means to gain trust over others in order to ultimately gain power over them, in which case he is not in fact generous.

[18] See Michael Slote, *Morals from Motives*, for a paradigmatic case of such a view.

[19] *Virtue Ethics: A Pluralistic View*.

target.[20] Rather than discuss each of these components sequentially, I shall focus first on the field or domain of creativity and its target (what it aims to achieve), and later explain its mode of responsiveness and basis for acknowledgement by way of examples and illustrations. Finally, I should stress that just as the standard of human flourishing is aspirational, so is the virtue of creativity: the virtue of creativity is achieved not by meeting a certain threshold, but rather by being actively guided by the requirements of excellence in the domain of production.[21] Thus, the virtue of creativity provides a model by which we may measure and regulate our actions along a continuum.

I. Defining the Virtue of Creativity

In the Neo-Aristotelian tradition, the concept of virtue plays a central role. Indeed, often Neo-Aristotelian philosophers are regarded as in the tradition of "Virtue Ethics," a broader category including philosophers whose ethical influences may be Humean or Nietzschean in character.[22] The Neo-Aristotelian approach to virtue, where I locate my own view, broadly sees virtue as states of character that are essential components of human flourishing, and serve as ethical ideals by which we evaluate individual actions.

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[20] *Ibid*., 233.

[21] As I suggested previously, we may in a sense use a threshold, if we mean "one is reaching one's full potential" or not. However, this is inappropriate as a standard of virtue, unless we are specifically distinguishing between fully virtuous and mostly virtuous — and even this is holding constant external conditions or background considerations that may make the full realization of virtue more difficult or impossible. I agree with Daniel Russell that virtue is what he calls a "satis" concept (such that virtue is a continuum), and a model concept in the sense that applying it requires having an idealized model to which we can compare any particular case. (Practical Intelligence and the Virtues, 113-20).

[22] For a Humean approach to virtue ethics, see Michael Slote. For a Nietzschean approach, see Christine Swanton.

As we saw in Chapter II, Aristotelian approaches to ethics see *eudaimonia* as activity, or more precisely a life characterized by excellent activity (virtue). Living well for human beings means not (primarily) being a passive recipient of goods, but rather acting a certain way to achieve and maintain human values. Doing so requires grasping how to achieve important values across a range of contexts, and being disposed to act in accordance with that knowledge, since our character conditions our choices and desires. The virtues make possible the character required to achieve human values and live well over the course of a human life. There is no dichotomy, on my view, between virtues as dispositions or actions: we can equally speak of the dispositions themselves, or the actions that flow from those dispositions, and as I explained in the second chapter, a *eudaimon* human life is a life of *activity*, so ultimately the virtues as dispositions exist for the sake of virtuous action. Clearly, at some level of some description an action can be done from different dispositions or motives. For instance, I may tell the truth on a certain occasion from a disposition of honesty or in order to hurt someone's feelings. But I am using "action" here in the wider sense that encompasses one's goals and motivations as part of an action. What matters here is simply that it is actions from this wider perspective that are relevant for ethical guidance and assessment.

Human experience is made up not only of actions or knowledge, but of emotions as well - and so living well involves cultivating both cognitive and emotional excellence. Consequently, virtue requires not merely knowledge or understanding but also the right kinds of emotional responses. So, virtue has two central components: an intellectual

component (grasp of a principle of the human *bios* with respect to a context), and an emotional component (reacting or feeling a certain way and being appropriately motivated).[23] It is with respect to these two components that I will argue that creativity should be identified as a virtue.

a. The Intellectual Component of Creativity

In the Neo-Aristotelian tradition, virtues are understood as dispositions to choose appropriately in a domain of human choice and activity, in a way that characteristically benefits the possessor of virtue in living a good human life.[24] But virtues are not merely unintelligent habits, but involve practical intelligence (or what Aristotle calls *phronesis*): properly cultivating and acting in accordance with the virtues requires an intelligent grasp of the human good.[25] In particular, on my view, what this means is that the virtues involves the grasp of a principle relating to the human *bios* - that only certain courses of action and choices will promote human flourishing, and others will detract from it. From one perspective, all the virtues are merely forms or aspects of practical wisdom together with the appropriate emotional and motivational disposition.[26] The virtues, despite having

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[23] One might respond by suggesting that the motivational component of virtue is separable from the emotional component. I don't think much hangs on this distinction for my purposes, but in this context I am understanding motivation broadly as a kind of emotional engagement with an activity. For example, someone motivated to act generously feels engaged and experiences pleasure at generously helping a friend in need.

[24] See Martha Nussbaum, "Non-Relative Virtues: An Aristotelian Approach," Rosalind Hursthouse, *On Virtue Ethics*, Philippa Foot, *Natural Goodness.*

[25] See Daniel Russell, *Practical Intelligence and the Virtues*, Julia Annas, *Intelligent Virtue*, Rosalind Hursthouse, *On Virtue Ethics*, Louden, R. "On Some Vices of Virtue Ethics" in *Virtue Ethics*, Aristotle, *Nicomachean Ethics* II.4.

[26] For more on this idea, see Christopher Toner, "The Full Unity of the Virtues," *Journal of Ethics* Vol. 18 No.3 207-227.

their own characteristic sphere of concern, are then unified by their relation to practical wisdom (or excellence in deliberation), which itself transcends the various spheres of concern, and each is appropriately coordinated with each other virtue. This is what Daniel Russell has called the "directions view" of the virtues.[27] On this view, the virtues provide "direction" to ones action toward the human good which practical wisdom appropriately coordinates and specifies. Building on this idea, as I see it, the virtue-concepts make it possible to break down the principles of practical rationality in different domains to make them easier to grasp in deliberation - whether it is in relating to judging others and giving of reward or punishment (justice), how one relates to one's work (creativity), or maintaining harmony between one's actions and professed ideas and values (integrity).

Accordingly, on my view, each virtue encapsulates a principle in a defined context of human action. What does it mean to say that these principles involve a grasp of the human good? On my view, it means that they involve comprehending core components of the human *bios* - what constitutes those components and how to achieve them as values. As an example, consider friendship. Friendship is a personal relationship grounded in intimacy, shared values and activity, and mutual and non-instrumental regard for well-being.[28] Friendship is an important component of the human *bios* - it fulfills a crucial psy-

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[27] Daniel Russell, *Practical Intelligence and the Virtues*, 336. Russell argues that this view is also attributable to Aristotle.

[28] I am expanding here on Bennett Helm's characterization of friendship: https://plato.stanford.edu/entries/friendship/ The fact that friendship, on my view, plays a functional role in well-being does not mean that it cannot involve regard for friends for their own sake, or that friends are merely instrumental values. It does mean that those values are constituents of a wider network of values, and friendship has a defined role and context within that network.

chological need in human life.[29] The grounds for such a claim are parallel to the grounds for seeing work as a central component of the human *bios* - we see that there is a biologically rooted need to engage in a certain kind of activity, which plays a functional role, coordinated with other key activities, in making possible and sustaining the human *bios*. To achieve friendship in an excellent way and maintain it as a value requires acting with integrity, which in the pursuit of friendship demands loyalty and preserving one's commitments to one's friends.

To use another example, honesty involves the grasp of the principle that one cannot achieve or maintain genuine values, such as a job or a relationship or a friendship, by faking reality or pretending that the facts are other than they are.[30] For instance, if one lies about one's qualifications for a job in order to be hired, one cannot escape the reality that one is in fact unqualified: that one will not be able to do the work well, relate to his peers and management in the most productive and collaborative way, and must devote energy and time to evading discovery, all of which undermine one's sense of competence and self-esteem, which is one of the core values to be achieved through work in the first place.[31]

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[29] Again, these claims must be understood in the context of the first chapter on functions; on my view, to say that something is a component of the human bios is to say that it fulfills a functional role as part of an organized, self-maintaining whole.

[30] See Tara Smith, "The Metaphysical Case for Honesty." On a more commonly accepted notion of honesty, this virtue is primarily other-regarding (i.e. telling the truth to others). Smith's account, which I accept, incorporates this notion but understands honesty as a more fundamental orientation to reality, in that it is an orientation to not faking reality or pretending it is other than it is.

[31] See Nathaniel Branden, *The Six Pillars of Self-Esteem* for a discussion of the role of honesty (within what Branden calls "living consciously") in cultivating self-esteem.

I have already suggested the principle that creativity encapsulates, with its dual components: what I called the *poesis* component and the *techne* component. On my view, these taken together mean that creativity involves grasping and living according to the principle that production is a central component of *eudaimonia*. So, a creative person sees production as an activity around which to organize a great deal of their time, effort, thought, and energy, and understands that it is important to cultivate excellence within one's work, which means not only understanding how and why the work is valuable, but how to make it more valuable to oneself and others, by making the work engaging, appropriately intellectually challenging and promoting genuine material, psychological, or spiritual human values (i.e., values that promote the human *bios*) insofar as is possible. A creative person understands the importance of imagination, openness to novelty and experimentation as crucial to having productive activity as a value. In addition, creativity involves openness to mistakes and failure, which are important components of pursuing productive activity, and understands the need to learn from mistakes.

Importantly, creativity in this sense does not require pursuing that which is historically or anthropologically novel (in the sense of being new to humanity),[32] but rather

[32] This is a helpful distinction made by several philosophers in the literature on creativity. See Maria Kornfelder, "Explaining Creativity" in *Creativity and Philosophy*, Matthew Kieran, ed.

novel and original in one's particular context, or in other words contextually novel.[33] For example, a person starting a coffee roasting company in his neighborhood is not thereby inventing anything historically new to humanity. However, he is providing a new value in his neighborhood (perhaps by seizing an opportunity that no one had previously identified in that geographical area) and presenting his own version or brand of a preexisting idea. On a personal level, the coffee roaster may be engaged in his first business enterprise, thus expanding his skills and experience at the outset of a new career. Creativity for him would demand seeking ways to make his business suited to his own vision of excellence in coffee roasting, seeking innovation and improvement whenever possible to build upon that vision, and improving that vision as needed and when appropriate. More broadly, it would involve seeing (or striving to envision) how this enterprise fits into a wider career of productive activity, since integrating one's work into a career is part of what makes creative work a value for one's overall life (though not one I will address in detail here).[34] Now, it must be stressed that novelty is not valuable *tout court*. Only *appropriate* novelty is the target of creativity, and even this must be importantly clarified. In many

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[33] Boden, M. (2004) The Creative Mind: Myths and Mechanisms, 2nd ed., London: Routledge. The key idea here is constantly expanding one's own horizons of value within productive work, e.g. through new knowledge, skill development, new collaborations, etc., insofar as they further the purpose of one's work. The novelty may be relative to one's actual psychological context (i.e. one's awareness) or novel relative to the cultural or social environment in which one operates, or a combination of the two. In neither case though does creativity, on this understanding, require historical novelty in the sense that no human has ever come up with or applied the ideas one is using before.

[34] By this I mean, that a career, vs. a series of unconnected jobs and projects, offers a better opportunity to develop mastery and engagement with work, as well as promote the economic value of one's work. Obviously, due to a variety of external circumstances, such as economic depression, change of deep preferences, geographic limitations, etc., a creative person may need to change careers once or even several times throughout their lives. This is not thereby a sign of vice, or uncreativeness.

contexts, excellence in some domain of production may involve reviving older methods, approaches, ideas, or innovations. For instance, a creative composer may seek to revive certain baroque methods of counterpoint that have been forgotten or lost. Or a fashion designer may revive previous fashion trends that have fallen out of favor, or have been long forgotten. We may call these "restorative novelty" in that they involve restoring a previous paradigm, idea, or approach to a new present-day context. To the extent that such creative activity is valuable, it involves altering one's local or present context by adding value to it that did not previously exist, even though it may have existed in another time and place. The value of the restoration then depends on how and to what extent this promotes the purpose of the craft in which one operates: while tradition for the sake of tradition surely is not valuable, reviving certain traditions may be valuable when they help correct a misguided or defective trend in a current domain. For instance, if writers stopped using grammar, or plot construction for the sake of novelty in literature, it could arguably be very valuable for a writer to engage in restorative novelty to revive grammar, plot, and so on, if those are important to the value that literature can provide for human life.[35]

This last example is perhaps controversial, and illustrates the fact that the appropriateness of novelty can be difficult to determine. No concrete formulation can be given for appropriateness, since any understanding of appropriateness in productive activity is essentially connected to a domain or craft. Understanding this, in turn, requires some fa-

[35] This formulation was suggested to me in discussion by Luca Ferrero.

miliarity with the craft in question. However, the standard of the human bios does offer a general framework from which appropriateness can be assessed: one must identify the purpose(s) of the domain of work in which one operates and identify how one's approach contributes to that purpose(s). For instance, if the purpose of architecture is creating efficient spaces that also provide aesthetic value, one must identify how that relates to the human *bios* (e.g., because efficient spaces give us more time for pursuing other values and make us more effective, and aesthetic value enhances our psychological engagement with life) and how one's approach promotes that purpose (e.g., a new way of designing pillars that is both structurally powerful and beautiful). Understanding and explicating the purpose of a craft in more detail is of course part of the responsibility of experts, researchers, and educators in those respective domains.[36]

Creativity also involves a long-term cognitive orientation. Cultivating production as a value in life requires not merely thinking about work in a temporary or short-term sense (e.g., merely "how will I spend my time tomorrow or next month or next year?"), but also as it fits into one's life as a whole. Perhaps his coffee roasting venture is actually a starting point for a larger coffee business, or perhaps it is an experiment in entrepreneurship in order to build skills for future ventures which will be more difficult and demanding. There are a wide range of options for this activity being part of a *eudaimon* life for this person, but the key point is that creativity involves grasping the importance of

[36] This, in psychology, is the most widely accepted way of empirically measuring appropriateness in creativity. See Amabile, T. M., 1982, Social psychology of creativity: a consensual assessment technique. 43 (5) 997-1013.

production as a central component of a one's life and what follows from the recognition of that fact.

As I have suggested, creativity also quite often requires understanding economic value, since this is what enables productive activity to sustain oneself. By "understanding economic value," I do not mean that to be creative one needs to have a sophisticated understanding of economic theory, but more simply that creativity involves seeking and having knowledge about what values one can provide and trade with others, through collaboration, providing services, or selling products or knowledge. So, for instance, if one wishes to be a novelist, creativity demands understanding how to structure one's work in such a way that is economically viable, by finding a publisher or a means of selling one's work. If one wishes to be an engineer, one needs to seek out the skills that are valued in the particular field of engineering one wishes to pursue and seek out places in which those skills can be applied. If one wishes to be an intellectual, one must seek out the education and credentials needed, and discover where and in what context one can contribute meaningfully to the development of human knowledge. Relatedly, creativity demands seeking out and pursuing other non-domain-relevant skills that may assist in one's creative work, such as interpersonal communication skills and creativity-relevant skills (restructuring one's thought, imagination, experimentation) as they are appropriate and arise in the pursuit of work.

Thus, creativity is intellectually demanding; and, more to the point, it involves precisely the kind of intellectual understanding that Neo-Aristotelians have often ascribed

to practical wisdom, which is an understanding of human life and its requirements. Far from being a trait that is randomly acquired or exercised in spurts of sub-rational imaginativeness, creativity is in this sense a significant intellectual achievement.

Before I turn to the emotional component of creativity, it is worth anticipating an objection here. It might be thought that the intellectual aspect of creativity I have outlined here makes it far too demanding as a virtue; for many people in the world, and indeed for most people in the greater part of human history, production has not involved such a significant intellectual component. Indeed, for very impoverished manual laborers or those working primarily to subsist on the fringe of survival, creativity in my sense is not achievable. But does this not count against the idea that this could be a key component of human flourishing?

Now, certainly it is true that creativity is demanding as a virtue. But this is merely to understand that *eudaimonia* is difficult to achieve, and that for most of human history most people have lived rather terrible lives, either owing to their circumstances or their choices. It is not a requirement on Neo-Aristotelian naturalism to reinterpret human history with rose-tinted glasses and suggest that humans have been flourishing all long. The situation is rather quite opposite. The role of philosophical ethics is to furnish us with an ideal to which we may aspire and strive, and serve as a beacon to which we may guide the ship of human progress. Given the myriad dangers humans face from the natural world and each other, and the endless forms of mistakes, evasions, and mindless destruction of which human beings are capable, it stands to reason that human flourishing, and

specifically creativity, has been few and far between. The ultimate promise of Neo-Aristotelian naturalism is that it can be a guide for rational progress in ethics and understanding human nature, so that we can live wonderful lives of growth, engagement, and connectedness to others, and live in societies that make this sort of living possible. With this clarification in hand, I turn to the second component of creativity.

b. The Emotional Component of Creativity

Virtues are not merely abstract principles or states of knowledge, but involve our emotional and motivational capacities as well. Following Aristotle, Neo-Aristotelian approaches to virtue have emphasized the importance of emotion as an aspect of good character.[37] On this approach, emotions are appropriate (and components of virtue) insofar as they are oriented towards correct intellectual apprehension of the human good. So, for instance, it is appropriate (and an aspect of the virtue of justice) to feel some indignation if one is cheated out of a contractual agreement (an injustice) or joy at the success of a hardworking student who faced difficult obstacles. Conversely, it is inappropriate to feel great enjoyment in drinking inordinately to the point of drunkenness (intemperance), or disgust at needing to help a virtuous friend in need.

I have said that the virtue of creativity concerns a grasp of the value of production. The emotional component of creativity concerns feeling appropriately with regard to

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[37] Rosalind Hursthouse, *On Virtue Ethics*, Philippa Foot, *Natural Goodness*, Julia Annas, *Intelligent Virtue*, Daniel Russell, *Happiness for Humans*, Paul Bloomfield, *Virtues of Happiness*.

productive actrivity as a value. For instance, a creative individual will not feel excessive pain in successions of minor failures or setbacks in pursuing a career, such as losing out on a job opportunity, failing to get a raise, unexpectedly poor outcomes in starting a business, and so on. This is because a creative individual is emotionally responsive to the fact that productive activity involves trial and error, failure, experimentation, and openness to novelty and change, all of which entail a certain amount of setbacks and unpredictability. Conversely, a creative person feels excited or engaged at the prospect of developing skills or learning with respect to her chosen field of work insofar as that contributes to the novel and original value.

Relatedly, creativity entails certain motivations. A creative person will be motivated to find, cultivate, and maintain conditions in which she can pursue work that is engaging and allows for imaginativeness and exploration of novel value whenever possible and appropriate.[38] Matthew Kieran has helpfully characterized the motivation involved in creativity as "aiming at the values internal to the relevant domain."[39] This helps explain why creativity is closely associated with intrinsic motivation.[40] For instance, a creative person seeking to build a career as a novelist will seek to maintain conditions under

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[38] To be clear, as I have stated at the outset, what is relevant here is an orientation to find and cultivate those conditions for oneself within one's own abilities. Limitations on pursuing those conditions will involve not just background social conditions such as upbringing and economic contexts but also the contexts of one's other values and important commitments such as relationships, child-rearing, friendships, and so on.

[39] Matthew Kieran, "Creativity as a Virtue of Character," 9.

[40] Teresa Amabile, *The Progress Principle:* "intrinsic motivation is the love of the work itself - doing the work because it is interesting, enjoyable, satisfying, engaging, or personally challenging….intrinsic motivation is necessary for people to do their most creative work." 34-36.

which she is cultivating her own unique and valuable approach to writing (to the extent that she can) and make her work engaging and intrinsically rewarding. She will seek to define and understand the values and standards of good writing (excellent word choice, flow of thought, development and portrayal of characters) and be primarily concerned with such issues. An uncreative novelist, by contrast, may be motivated primarily by status or wealth and care little for engagement with excellence in her work, and care little for cultivating a novel approach or attempting to understand how to excel in writing. Creativity involves being motivated in certain ways towards others as well: a creative person seeks others (especially other creative individuals) as sources of collaboration, cooperation, and knowledge. This need not mean that to be creative one must be particularly extroverted, but that in general one is motivated to learn from and collaborate with others insofar as in almost all fields of work this orientation is crucial to excelling in production.

c. Intrinsic vs. Integrated Motivation

However, while intrinsic motivation in production is an ideal state to strive for, motivation need not (and frequently will not) be intrinsic in order to be experienced as autonomous and engaging. Recalling the framework from self-determination theory I cited in the last chapter, research suggests that productive activity can be experienced as engaging and promoting conditions for psychological well-being even falling short of in-

trinsic motivation, provided that the motivation is “integrated” with one’s sense of self.[41] In such situations, the integrated motivation to engage in work may be considered extrinsic, but they are, as Matthew Kieran puts it, nevertheless “positively related to the pursuit of values internal to the relevant domain.”[42] This perspective is also crucial because even for highly intrinsically motivated individuals, most fields of work will require one to engage in some tasks that one is less-than-intrinsically motivated to do. For instance, suppose John’s creative career is centered around designing furniture, as his own business. It may be that one aspect of making this work economically feasible as one’s career that John must also engage in sanding his furniture himself (perhaps later on he can hire someone to do it for him). Perhaps John is highly creative and is intrinsically motivated primarily by the idea of coming up with ideas for furniture and figuring out the engineering specifications to make them practical and reliable, but he finds the sanding component of his work uninteresting, despite recognizing its importance. In such a case, creativity demands merely that John endeavor to either outsource that work to make his work more engaging overall, or at least internalize the process and see how it synthesizes with his core values of providing excellent furniture. In the latter case, John would still have an excellent disposition towards his work and be centrally oriented towards excellence in the work itself, even if with regard to the specific task of sanding he is extrinsically moti-

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[41] Ryan, R.M, & Deci, E.L., “Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being.” See also Collins, M.A. and T.M. Amabile, “Motivation and Creativity” in *Handbook of Creativity*, 1999.

[42] Matthew Kieran, “Creativity as a Virtue of Character,” 18.

vated. Notably, there will be certain cases and contexts in which individuals will not be able to fully integrate components of work, due to undesirable conditions beyond one's control, as I discussed in the previous chapter. In oppressive circumstances, for instance, seeking work in an authoritarian state where one's activities are monitored and controlled, expressing creativity will be necessarily more difficult or perhaps impossible.

I have now shown how creativity meets the structural or conceptual requirements for Aristotelian virtue. I shall now turn to the relation between creativity and two other virtues, honesty and courage, to show why creativity implies and requires these already-recognized virtues.

II. Creativity and the Other Virtues

As I suggested earlier, I view the virtues as unified in an important respect, viz. what Neera Badhwar calls the limited unity thesis[43]: that the virtues are unified in the sense that they imply one another and are unified by expressing different aspects of rationality in domains of human choice. Because of this implication and unification we may, as Hursthouse stresses,[44] rationally expect someone with one virtue to have the others. In this section I want to illustrate how creativity requires two virtues already widely accepted in contemporary virtue theory: honesty and courage. By doing so, I endeavor to further bolster the case that creativity should be considered an important virtue.

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[43] Neera Badhwar, "The Limited Unity of Virtue," *Nous* 30 (3):306-329, 1996.

[44] Hursthouse, *On Virtue Ethics*, Kindle Location 2595.

a. Creativity and Honesty

Honesty (or, as Aristotle calls it, "truthfulness") is widely regarded among virtue ethicists as being a central virtue.[45] While accounts of the nature of honesty vary in the literature, generally it is widely recognized that honesty involves a pattern of behavior aimed at avoiding pretense in one's dealing with others. While the popular conception of honesty is mere truth-telling, philosophers have been sensitive to the fact that honesty involves much more than this.[46] And indeed in the Aristotelian tradition honesty (or truthfulness) is wider than mere truth-telling. In the *Summa Theologica*, Aquinas describes Aristotle's conception of truthfulness as "that truth whereby a man, both in life and in speech, shows himself to be such as he is, and the things that concern him, not other, and neither greater nor less, than they are."[47] The significance of "in life" here is that Aquinas is calling attention to the fact that one's knowledge, beliefs, and values are just as much subject to the importance of truth as is speech. It is in this sense, a wider allegiance to reality and rejection of pretense, that we can most clearly see the connection between creativity and honesty.

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[45] See Rosalind Hursthouse, *On Virtue Ethics,* Alan T. Wilson, "Honesty as a Virtue," Daniel Russell, "Virtue Ethics, Happiness, and the Good Life," in *The Cambridge Companion to Virtue Ethics*, 7-28, Christian B. Miller, "Motivation and the Virtue of Honesty: Some Conceptual Requirements and Empirical Results," in *Ethical Theory and Moral Practice 2020,* Linda Zagzebski *Virtues of the Mind*, Driver, Julia. 2003. "The Conflation of Moral and Epistemic Virtue." *Metaphilosophy* **13**, no. 3:367–83.

[46] For a clear example, see Christian Miller, "Honesty," in n Walter Sinnott-Armstrong & Christian Miller (eds.), *Moral Psychology, Volume V: Virtue and Character*. Cambridge: MIT Press. pp. 237-273 (2017).

[47] ST 2-2.109.

In pursuing this wider conception of honesty, I shall use a definition of honesty here articulated by Tara Smith as “the refusal to fake reality.”[48] To make this definition consistent with my method of defining creativity, we may view it from the perspective of character: the disposition to recognize reality and avoid pretense. Smith rightly observes that this conception of honesty captures the fundamental relationship between honesty and flourishing, because “things are what they are regardless of anyone’s opinion or attitude toward them…the way things are is what we must work with to accomplish anything in life.”[49] It is the fact that reality is independent of our consciousness, combined with the possibility of deception (both self-deception and deception of others) that makes honesty important; in deceiving ourselves and others, we undermine the conditions required for our own flourishing, since our achievement of flourishing requires a recognition and adherence to reality. For example, pretending that one does not have evidence of one’s spouse being disloyal does not save the relationship, nor does lying on a job application give one the actual merit and skills associated with having that job, nor does pretending to not have broken a promise make one a good friend.

With this conception in hand, how might creativity relate to honesty? On my view, creativity both requires and implies honesty. Recall that I argued that acting from creativity means pursuing appropriate novelty and intelligent engagement in productive activity as far as one can, and seeking to sustain one’s life through production. Creativity

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[48] See Tara Smith, “The Metaphysical Case for Honesty,” *The Journal of Value Inquiry* 37: 517–531, 2003.

[49] *Ibid*., 519.

in this sense requires honesty for many reasons, but I will focus on the following two: creativity requires honesty in assessment of one's skills and knowledge, and honesty in assessment of the requirements of the domain of work one is involved in.

Creativity requires honesty of the assessment of one's skills because fundamentally pursuing appropriate novelty within domains requires figuring out and developing the skills needed to do so. Dishonesty, in the form of self-deception or deceiving others, does not make one more capable of producing appropriate novelty, but rather makes it more difficult, by making it more difficult to understand and relate to one's capacities. Consider an entrepreneur who has never started a business in wine before, but is interested in importing and selling wine. In order to contribute novel and appropriate values in that field, she will need to learn about, e.g., how people import and organize wine efficiently and effectively, to know how she might improve upon that or do it in her own uniquely valuable way. This requires an honest self-assessment of her own skills: perhaps she is insufficiently knowledgeable, for instance, about the different types of grapes used in wine. If she deceives herself and pretends to know more than she does, she is likely to make mistakes and work in a counterproductive way, which will impede her creativity. The situation is similar if she deceives others with whom she collaborates. For instance, if she tells an investor that she has extensive knowledge of wine varietals, the investor will count on her to use that knowledge and expect her to utilize it efficiently. Pretending that she has that knowledge will only make it more difficult for her to successfully collaborate with the investor to achieve a creative outcome, since she will not be able to cooperative-

ly problem-solve in cases that might reveal her deception. To the extent that she is dishonest in this way, the collaboration will in fact make the work less meaningful and enjoyable, since it will involve a constant task of deception and manipulation, rather than an engaging development of growth and value-creation.

Honesty is needed in understanding the requirements and standards of production in a domain as well. For instance, if one pretends that one can make a career out of scientific practice (setting aside possible rare cases in which this is achievable) on one's own without the requisition educational background and institutional collaboration, one is likely doomed to failure and is very unlikely to produce new and appropriate novelty. The same would be true of an aspiring musical artist who pretends that one can be an excellent songwriter without properly learning how to write or play music. The result of such an approach will be uncreative and highly unlikely to lead to valuable works of art. Honesty is also required in understanding the nature of collaboration. To continue the example of the artist, it is sometimes falsely pretended that if one makes a beautiful work of art but spends no time meeting others, collaborating, building networks and so on, that the world will recognize one's work and reward one appropriately.[50] However, this is not how the world works: careers are collaborative and require networks and cooperation with others, and this means that one needs to be sensitive to others' contexts and knowledge. Among other things, one needs to acknowledge that creative collaboration requires

[50] See *Success Is in Your Sphere: Leverage the Power of Relationships to Achieve Your Business Goals*, by Zvi Band, for a discussion of the importance of networking in business contexts, which has wide application.

making others aware of your needs and skills and not passively waiting for them to find you.

b. Creativity and Courage

The other virtue I wish to illustrate in connection to creativity is the virtue of courage. In this connection, I wish to draw attention to Paul Bloomfield's characterization of courage in his book *The Virtues of Happiness*, which is largely based upon an Aristotelian framework. Bloomfield writes that it "is an incontrovertible fact about human beings…that we are mortal, biological creatures: we are born helpless, can feel pain, and die…if we are too do more than merely survive, if we are to be strong and flourish, we must learn how to respond to our fear well…dealing excellently with fearful and/or harmful things is the stuff of courage."[51] In this particular quote, Bloomfield stresses the existential aspect of courage; but of course, we can understand "fear" more broadly than simply physical danger, as he notes later as "moral courage" and "intellectual courage." When we focus on this broader sense of courage, we find that weighing and evaluation of risks is an important part of the field of courage. Bloomfield argues that "courage requires the self-knowledge to accurately assess one's abilities. It requires the ability to determine whether or not one can perform certain actions in one's circumstances, to see what the best course of action is, and, perhaps more importantly, to discern the possible from the impossible."[52] Interestingly, this way of seeing courage suggests that it bears a

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[51] Paul Bloomfield, *The Virtues of Happiness*, 177.

[52] *Ibid*., 180.

close relationship to honesty in the sense of accurately representing situations one is in, except that these situations are primarily those in which one faces (fearful or dangerous) challenges in pursuing values.[53] The stressing of this cognitive element is helpful in distinguishing courage from recklessness, as Hursthouse does when she uses an example of an intelligent water rescue (versus a headlong dive into water to save someone without a moment's thought).[54] In addition, it highlights, as Bloomfield notes, that the popular conception of courage as primarily being concerned with "facing one's fears" misses the mark (much in the way that the idea of honesty as primarily "not lying" does). As I have argued earlier, emotions are not irrelevant to virtue — they are a crucial component of the states of character we need to live well. And yet, emotions are, by their nature, our responses to the world, and therefore not the primary focus of virtue in general. Virtue's focus is instead, on the actions (and principles guiding our action) that are needed for us to live. In the case of courage, the target is not simply to feel a certain way (or not), but excellent action and choice in a domain of human activity as it pertains to the human *bios*.

This perspective is helpful in seeing how creativity requires courage. The link between creativity and courage is harder to see if courage is conceived of as managing fears: the creative painter in his studio, or scientific researcher in his lab, programmer

[53] My personal view is that all important values involve serious challenges and effort, to which responses of fear or betrayal are nearly always possible. In that respect, the "field" of courage is not some particular human activity apart from others, but rather the field of pursuing values in general, considered from a delimited perspective.

[54] Rosalind Hurshouse, "Practical Wisdom: A Mundane Account," in Proceedings of the Aristotelian Society Vol. 106 (2006), pp. 285-309, 302.

coding a new application, or entrepreneur working out a new marketing strategy may not be in those moments concerned with managing feelings of fear or perceptions of danger. But they are engaged in activities that involves serious and difficult challenges, and this is the respect in which the creativity of their activity depends on courage. As I explained earlier, creativity requires one being guided by appropriate novelty in a field (within one's range of ability); this is a demanding and challenging task. It demands that one summon the intellectual courage and stamina to pursue growth of skills and pursuit of challenging projects and endeavors in the face of possible setbacks or failure. The failure, in turn, may lead to harsh judgment or criticism by others. Creativity demands that one strive for excellence in work, despite pressures to conform, give in, or betray one's goals in work for the sake of the safety of stagnation or approval of others. As an extraordinary example of how creativity requires courage, consider the story of the Wright brothers' successful invention of the first aircraft. To succeed in that enormous creative undertaking required exemplary courage. First, they were attempting to do what no one considered possible, and that they themselves continually failed to do over years of problematic designs and disappointing tests. Later on, to make their contribution understood and recognized to the world, they had to endure years of criticism, denial, and scorn from American and European intellectuals alike, until at last their achievement was recognized. They could not have succeeded in their creative endeavor, or in working creatively as they did, had they not possessed the courage to repeatedly persevere against common

opinion and failure.[55] The same holds true for any career or field of production in which one holds oneself to ambitious standards (as creativity demands): one will inevitably face challenges, fears, and failure, which courage is needed to face. It should be added that, as Bloomfield stressed, courage is not recklessness. The Wright brothers were not stupidly trying to achieve a ridiculous or impossible feat; they recognized that what they were trying to do, though very difficult, was quite likely possible. And indeed their gradual success in improving their designs required properly understanding what they were doing and its likelihood of success, since they continually responded to further evidence of flaws. Their actions demonstrated, as the virtue of courage requires, that they were intelligently assessing their work and its chance of success.

To sum up, I have laid out a conception of creativity under which it not only meets the structural requirements of virtue in an Aristotelian sense, but also is intimately connected to virtues that are already recognized: honesty and courage. It is now worth examining the psychological literature on creativity (which has flourished in recent decades) as it pertains to the conception of creativity I have defended. Often, Neo-Aristotelian ethics is taken to task for its complex claims about character and development without sufficiently addressing the psychological implications or knowledge that may bear on those issues. Therefore, I will briefly indicate how important strands of contemporary research on creativity not only support my view of creativity as important for

[55] See https://www.davison.com/blog/the-wright-brothers-first-flight/.

well-being but are helpful in understanding how we might think of the various cognitive components of creative thinking in the framework I have developed.

III. The Psychology of Creativity

a. Creativity and Ordinary Cognition

By now, it should be obvious that I am not working with a conception of 'creativity' that is mysterious, inexplicable, or accessible only to scientific or artistic geniuses. This does not mean that geniuses are irrelevant, or not examples of creativity; rather, it means that if classification as a genius requires the possession of traits that are not normally possible to most human beings, those traits relevant to genius are not relevant for my conception of creativity as a virtue.

A key aspect of this account, then, is that creativity is accessible to human beings with ordinary healthy levels of cognitive functioning - what has been called an "ordinary-process" view of creativity, emphasized for instance by the relatively recent "creative cognition approach."[56] On that approach, creativity is an ordinary process in the sense that it involves "the generation of novel and appropriate products through the application of basic cognitive processes to existing knowledge structures."[57] While other approaches to understanding creativity exist in the psychological literature, there is broad agreement and substantial evidence to suggest that creativity is best understood in this "ordinary"

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[56] Steven Smith, *The Creative Cognition Approach*, 1995.

[57] Thomas Ward, "Creative Cognition as a Window on Creativity" 2006.

way.[58] This recent approach is still in an early stage, but there are already promising avenues of research that suggest that high levels of creativity can be cultivated in people of normal cognitive ability even from an early age.[59] This does not entail that geniuses do not exhibit creativity in a qualitatively different way;[60] but that a pertinent and explanatorily rich conception of creativity applies to non-geniuses.

Far from being mysterious or unaccountable, then, on this approach, the processes involved in creative thought involve a variety of cognitive processes that are in principle accessible to competent rational thinkers, such as analogical reasoning, conceptual expansion, memory retrieval, associational linkage, and so on.[61] I am using creativity in a *somewhat* different sense than that typically applied in psychological studies of creativity, since I am relating it to a particular ethical framework: the moral value of production in a *eudaimon* life. Indeed, often psychologists studying creativity study it in other contexts, neither considering necessarily as a virtue nor necessarily as connected to productive activity - for instance, as it concerns solving artificial problems, or as it may arise in individuals who are not necessarily moral exemplars. This might suggest that my conception

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[58] Richard Ripple, "Ordinary Creativity" *Contemporary Educational Psychology*, Vol 14, 189-202, 1989. Creativity: Understanding innovation in problem solving, science, invention, and the arts, by R. W. Weisberg. Teresa Amabile, "The Social Psychology of Creativity."

[59] Isaksen. & Dorval, "Creative Problem Solving: Overview and Educational Implications," *Educational Psychology Review* 7, 301-312, 1995, Kirton, M. J. (2003). Adaption-innovation: In the context of diversity and change. New York, NY: Routledge. Sternberg, "The Concept of Creativity: Prospects and Paradigms," in *Handbook of Creativity*, 1999.

[60] D.H. Feldman, M. Csikszentmihalyi, H. Gardner, *Changing the World: A Framework for the Study of Creativity*, 1994. For instance, there may be a qualitative difference, and not just a quantitative difference, between Picasso and a beginner art student.

[61] Maria Kronfelder, "Explaining Creativity." In *Creativity and Philosophy*, Matthew Kieran, ed. See also Boden, M. *The creative mind: Myths and mechanism.*

of creativity as a virtue is discontinuous with psychological research, and that therefore to that extent I am not justified in bringing that research to bear in support of my conception.

However, a strength of my conception of creativity is that it allows for integration with promising psychological theories of creativity in three significant respects: 1) the core conception of novelty and appropriateness (along a continuum) is common to both approaches,[62] 2) the positive psychology approach (within which much of creativity research is located) shares broad assumptions about human well-being with the *bios* view on which my account is based,[63] and 3) psychological approaches tend to see creativity as a disposition that can be learned and cultivated.[64]

This is important, because a fundamental component of a Neo-Aristotelian ethical approach (such as mine) more broadly is that it takes living ethically to be intimately

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[62] Amabile, *Creativity in Context*, Peter Caruthers, *Creative Action in Mind*, 2011, Mark A. Runco and Garrett J. Jaeger, "The Standard Definition of Creativity," in *Creativity Research Journal* 24 (1) 92-96, 2012.

[63] Seligman, M.E.P, 2002. Authentic Happiness: Using the new positive psychology to realize your potential for lasting fulfilment. Sydney: Random House Australia, Carr, A. (2004). Positive psychology: The Science of Happiness and Human Strength. New York, NY: Routledge, Robbins, B.D. (2008). What is the good life? Positive psychology and renaissance of humanistic psychology. *The Humanistic Psychologist, 36*, 96-112. Michael A. Bishop, in *The Good Life: Unifying the Philosophy and Psychology of Well-Being*, which models well-being in a similar way that I do in the first chapter, has also emphasized this important point. For positive psychologists, well-being is understood to involve a coordinated cluster of values, including connection to others (friendship, engaged and harmonious romantic relationships, productive work relationships), self-esteem, physical health, and generally characterized by positive affect (joy, optimism), etc.

[64] Robert, S., & Linley, P.A. (2006). Positive Therapy: A Meta Theory for Positive Psychological Practice. New York, NY: Routledge., Weisberg, R.W. (1993). *Creativity: Beyond the Myth of Genius*. New York: W.H. Freeman., Sternberg, R.J. (1995). *The Nature of Creativity*. Cambridge: Cambridge University Press. The latter uses a survey of recent perspectives to show ways in which both the environment and individual choices/orientation/cognitive processes are important for creativity. Similarly, on my view, there are important social and environmental conditions under which virtues (including creativity) are more likely to be developed or will be easier for the agent to develop. Nevertheless, creative activity crucially involves individual choice and disposition.

connected to living well and sustaining well-being (centrally, this has been my approach). On my approach, objectivity requires relating ethical theory to basic facts of reality that are similarly accessible to the sciences, including biology and psychology. A philosophical account of a virtue that is completely at odds with basic facts about our psychology and biological functioning should be rejected. Equally, the sciences need to be based on our best philosophical understandings of human nature. Therefore, it is important that the theory on offer be able to integrate a view of the virtues and *eudaimonia* with contemporary psychological approaches to well-being that are promising and insightful. I take it that opponents of Neo-Aristotelian virtue ethics have themselves been sensitive to this issue, as is evinced in the importance of the Situationist Critique to ethical theories centered around virtue. According to this critique, in response to which many Neo-Aristotelians have helpfully clarified their views, psychological evidence suggests virtue-centric theories make unjustified assumptions about the reliability of character and the possibility of people acting from reliable dispositions.[65] Consequently, I will sketch some ways in which my view can be integrated with psychological perspectives on the cognition involved in creativity.

[65] For an effective response to this critique, see Daniel Russell, *Practical Intelligence and the Virtues* (Oxford, UK: Oxford University Press, 2009), 239–241, 284, and Gopal Sreenivasan, "The Situationist Critique of Virtue Ethics" in Daniel Russell (ed.) *The Cambridge Companion to Virtue Ethics* (Cambridge, UK: Cambridge University Press, 2013), 209–314.

b. The Componential View of Creativity

One major way in which the psychology of creativity is helpful to my account is in breaking down the different cognitive components of creativity. Teresa Amabile has developed a helpful framework for breaking down the skills involved of creative activity, which involve three components: domain-relevant skills, creativity-relevant skills, and task motivation. To further illustrate how my philosophical account of creativity can be integrated with psychological research, I will explore how this framework can be helpful for understanding creativity as a virtue.

On this framework, domain-relevant skills include knowledge about a domain, formal education and motor skills, and what we may call domain-relevant "talent." Creativity-relevant skills include cognitive style, work style, and implicit or explicit knowledge of heuristics for generating creative ideas. Examples of cognitive styles that are part of creativity-relevant skills include suspension of judgment in idea-formation phases, appreciation of and facility in working with complexity, ability to explore new pathways of problem solving, and so on.[66] Task motivation includes attitudes towards the task, and self-perception of one's own motivations towards the task - specifically, motivation in creativity must be sufficiently internalized. Relating this to my own framework, I would include creativity-relevant skills and task motivation as aspects of the virtue of creativity, whereas domain-relevant skills are not *per se* aspects of the virtue of creativity but rather

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[66] Morris Isaac Stein, *Stimulating Creativity*, 1975, Evelyn Quinn, "Creativity and Cognitive Complexity," *Social Behavior and Personality* 8 (2) 213-216, Csikzentmihalyi, M., and Getzles, J.W., *The Creative Vision: A Longitudinal Study of Problem Finding in Art*, 1976, Teresa Amabile, "Componential Theory of Creativty," in *Encyclopedia of Management Theory*, Eric H. Kessler, Ed., 2013.

particular expressions of it relevant to an agent's particular life and goals. So, for instance, specific skills relevant to creativity in entrepreneurship, such as excellent presentation of ideas and good financial skills, are not part of creativity qua virtue, even though they may be required for an entrepreneur to develop and practice creativity in her field. Such skills may define the entrepreneur's "network of possible wanderings"[67] in her work, as well as the paradigms within which she works, which are crucial for meeting the criteria of novelty and appropriateness in her field. In this sense, the virtue of creativity requires that *some* domain-relevant skills to be developed, but the particular skills that are needed will vary greatly.[68] This is a view that integrates well with my view of creativity, since domain-relevant skills are almost always highly relevant in making one's work economically viable as a means of sustenance (the *poesis* component).

A philosophical approach to creativity such as mine also benefits psychological research, and can play an important role in an effective psychological study of creativity. Just as philosophical issues in biology are crucial to settle in order to have clear and philosophically appropriate understandings of concepts such as causation, life, fitness, population, and so on, philosophical issues concerning activities central to human well-being, including how to define and understand them in the context of a good life, are crucial to the framing (and subsequent study) of well-being from a psychological perspective. For instance, my approach suggests that creativity is part of human well-being in

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[67] Newell A., and Simon A., *Human Problem* Solving, New Jersey: Prentice Hall, 1972, 82.

[68] Teresa Amabile, *Creativity in Context*, 83-7.

general, and that this suggests that psychological perspectives on creativity that unduly stress creative genius or exclusively focus on artistic creativity will largely miss the mark in how creativity should be understood (though again, certain examples may be useful as models or starting points). It also suggests that exploring the nature of creativity in the solving of artificial problems that may not be connected to real-life situations of creative work is unlikely to be fruitful in expanding our understanding of creativity. Moreover, in thinking of creativity as having moral importance, this suggests that psychology ought to study as being of central importance ways in which creativity can be taught, especially in children, and how it can be taught alongside other virtues such as honesty or courage.

I have sketched ways in which my view integrates nicely with promising trends in positive psychology, as well as more general research on creativity in the last few decades. In particular, psychology has developed a conception of creativity as a trait (or process of thinking) that is "ordinary" in the sense that creative thinking involves cognitive processes anyone can engage in (not just abnormal individuals such as geniuses), a trait that is skill-based and learnable, and that is closely tied to motivation and domain-relevant skills. This suggests an important pathway for what may be fruitful research in the future into the nature of creative cognition and how best to cultivate it.

IV. Falling Short of Creativity

Thus far I have presented a positive account of creativity as a virtue. I have said little, however, about falling short of creativity. Following Aristotle, I take it that there is a wide range of failure falling short of virtue that encompasses varying degrees of vice or ignorance. There are consequently many ways in which one might be oriented or disposed *against* creativity (or not disposed *to* it).[69] In their most egregious forms, I would consider these forms of the vice of "uncreativeness," in which due to one's own choices and dispositions, one fails to be creative and is instead oriented towards unoriginality, second-handedness, destructiveness, or laziness with regard to creative work. In lesser forms, they may result from an unfortunate but morally excusable ignorance (either due to one's culture, or one's upbringing, etc.), or more tragically from cultures or societies in which creativity is suppressed (e.g., North Korea). However, ethics concerns the province of human choice, and therefore I shall primarily focus on the vice of uncreativeness — the evasion of the necessity and importance of creative work and a disposition to avoid it, and its various forms.

As I suggested above, there are myriad forms in which uncreativeness can be expressed. Here, I will focus on just four distinct character types: the criminal, the superfluous man, the unambitious person, and the second-hander. In doing so, I hope to further

[69] Following the Aristotelian conception of virtue, there are a range of ways of falling short of virtue, including continence and incontinence. For the purposes of illustrating a contrast, however, I think it is here more helpful to focus simply on the vice of uncreativeness.

clarify my view about the importance of creativity by way of contrast: by showing the ways in which these characters undermine their own flourishing.

a. The Criminal

The first form of uncreativeness I want to illustrate is the life of a criminal whose orientation towards production is negative, perhaps to the point where he does not engage in it at all and instead orients himself towards the expropriation and/or destruction of the creative values of others by force and violence. Take, for instance, Henry Hill, Jr., the mobster who was famously portrayed by Ray Liotta in the film *Goodfellas*. From an early stage in his adult life, he was fascinated by the criminal lifestyle of local mafiosos. He was given a "no-show" job on a construction-site for his performance of criminal duties such as vandalism and theft. The bulk of his career involved auto theft, extortion, violence and intimidation.[70] What characterizes his life is a consistent and reliable disposition to expropriate and/or destroy the values (and lives) of others. Instead of seeking to create novel and appropriate values, developing skills and expertise in a domain, and sustaining his life through his own thought and effort, he used violence and destruction to attempt to sustain himself, which led to his entire life falling apart into alcoholism, prison time and divorce. More importantly, while an extreme example, his life showcases the self-destructiveness of uncreativeness, in that his entire life was based around destroying

[70] English, T.J. (2005). Paddy Whacked: The Untold Story of the Irish-American Gangster. William Morrow.

and intimidating the very victims he needed to maintain his lifestyle, and thereby expressing his own incompetence and lack of integrity. For instance, instead of gaining knowledge and valuable skills with respect to a valuable craft, he must actively and constantly exert energy looking over his shoulder, deceiving others, and destroying anyone who is perceived to be a threat. Moreover, this makes collaboration with others unlikely, dangerous, and short-lived. Even if in some loose sense Henry Hill may have been "innovative" in his work as a mafioso, e.g., seeking new ways of cleverly robbing others, his approach to work lacks the *poesis* component, in that what really sustains him - the work that actually makes his life possible, ultimately - is the work and thought of others, which he destroys or takes by force. In trading with others, one produces values equivalent (or of higher value) in to those that others produce, allowing one's work to play the sustaining role it needs to in order to sustain human life, since such a transaction produces a mutual benefit, i.e., an increase in value to both parties. The taking of values by force or fraud undercuts this relationship to others by extracting the life-promoting aspects of their work without providing value in return, thus resulting in a loss of value to the other party. The criminal, such as Henry Hill, in fact engages in a net destruction of value, since values taken by force undermine the psychological sustenance of the criminal himself, as well as the material sustenance of his victim.

What is valuable and unique about this way of thinking of the mafioso is that it shows that the wrongness of the mafioso's life goes beyond merely injustice (as it is commonly characterized) - it relates crucially to his orientation to creating values in the

world. In this respect, it provides a better understanding of how the mafioso destroys not only others but his own life, in the sense that a human life requires self-sustaining production. The mafioso's life lacks this central value and thereby the central the psychological and material sustaining activity of *eudaimonia*.

b. The Superfluous Individual

Uncreativeness may arise in cases not directly involving injustice towards others, however. A helpful term to illustrate these other cases I have in mind is the term "superfluous man," a concept from 19th century Romantic Russian literature. This concept identifies an archetype of a bored, confused, listless man, usually an aristocrat or of noble station or privilege, struggling with existential angst at his seemingly directionless existence.[71] An excellent example of this character is Oblomov from Ivan Goncharov's eponymous novel, in which the protagonist can hardly leave his bedroom owing to his indecision, evasion of responsibility, and obsession with childhood nostalgia. This particular character is satirical, but the conception of an aristocratic life of leisure has long been a subject of European literature. What such a life lacks, on my view, and why it fails to count as a *eudaimon* life, is the central sustaining activity of production. The "leisure" and romantic pursuits of such a life are made meaningless, since they do not support a central guiding activity that defines the agent and sets the context for his competence, self-esteem, collaboration with others, and creation of values. His life is instead largely

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[71] Chances, Ellen (2001). "The Superfluous Man in Russian Literature". In Cornwell, Neil (ed.). *The Routledge Companion to Russian Literature*. New York: Routledge.

sustained by the inherited wealth created by others, or worse, by the exploitation of serfs or peasants, whose labor makes his continued existence possible. As the literary exploration of such archetypes emphasizes, e.g. in such novels as *The Idiot* and *War and Peace*, such people, to the extent they evade or avoid creative work, are characterized by uncreative wastefulness, existential confusion, and self-doubt. Such characters thus lack both the *poesis* and *techne* components of the virtue of creativity: they do not engage in work that materially contributes to their sustenance, and they do not engage in work with intellectual engagement.

I have used a 19th century concept to illustrate this form of uncreativeness, but it may equally arise in a contemporary context. Familiar to us is the example of a wealthy inheritor who, lacking ambition, drive, and desire to engage in production, instead passes his time in leisure, self-destructive displays of wealth, pleasure-pursuit, or other wastefulness. Another example of this form of uncreativeness is Daisy Buchanan from F Scott Fitzgerald's *The Great Gatsby*. In the novel, Daisy is a shallow and wealthy socialite who lives off of her husband's wealth to constantly engage in parties and other pleasure-pursuits without any real search for meaning. Such lives tend to lack appropriate value-hierarchies — to the extent that if all of the benefits in life one enjoys come from the work or effort of others, one loses a sense of responsibility and the value of one's one work and the values it can create. This is just another perspective of the point that in such a life the value of creative work is not present, and therefore one's capacity for material and psychological sustenance is to that extent undermined — precisely why productive activity is

such a *central* value in human life. This is not to say that anyone who inherits wealth is necessarily uncreative (there is no moral status attached to inheriting wealth); but rather, that creativity in such a context demands not merely consuming existing wealth one has been given but pursuing creative work to sustain oneself despite that wealth.

c. The Unambitious Worker

Yet another way of failing to live with the virtue of creativity is evinced in cases where one engages in work that may be producing some value, but in such a way that the individual utterly lacks ambition to promote or enhance that value. Imagine a highly naturally talented man, Michael, who did very well in high school, but gave no thought or deep consideration to his college degree. Instead, he chose engineering, simply because he happened to read somewhere that engineering led to moderately well-paying jobs. Michael applies for an internship at some point, solely because his professor suggested it, even though it had never occurred to him to ask. Once he graduates, his basic level of competence and knowledge, which he never developed beyond the minimum necessary understanding to receive a degree, helps him land an entry level job at an engineering firm. He finds the work boring, tedious, and generally uninteresting, and so remains at the lowest tier of responsibility at his firm, contributing nothing innovative or new but rather merely carrying out the instructions of his managers. While he is always on time and does the work he is instructed to do, the boredom and tedium of his job leads him to eagerly seek the evenings and weekends when he doesn't have to think about work and can sink into a drunken torpor or mindlessly waste hours watching meaningless sitcoms.

In a minimal sense, Michael's life involves production. He developed some skills necessary to engage himself in a job that provides for his material sustenance. But Michael's life is not regulated by the ideal of creativity; he utterly lacks the *techne* component of creativity, because he is not seeking new skills, not seeking to make his work intrinsically motivated, and not open to or interested in appropriate novelty. His work has only minimal value (a minimal material value) in his life. By failing to make his work a psychological or spiritual value to himself, an opportunity for engaging and expanding his mind, he allows his natural talents to go to waste, his work becomes his enemy psychologically, and he is doomed to boredom and stagnation, which ultimately he leads him to various sorts of escapism.

d. The Ambitious Second-hander

A fourth example of uncreativeness is expressed in cases where an individual is in some sense quite ambitious in expanding their material well-being (and in that sense, expresses the *poesis* component of creativity) but bases his work exclusively on the expectations, standards, and judgments of others without independent thought, and therefore lacks the *techne* component of creativity.

An excellent example of such a character is Peter Keating, from Ayn Rand's novel *The Fountainhead*. In the novel, Peter Keating is a young architect who has a career that is outwardly stunningly successful. He graduates from one of the top architecture schools, Stanton Institute of Technology, and goes on to work for one of the top architects in the field, Guy Francon. Keating is hugely popular and seemingly admired by everyone. He is

highly ambitious, in constantly seeking to get ahead of others, and seeking wealth, fame and admiration, all of which he achieves in his career. To do this, he constantly seeks favors from those in power and attempts to charm them, constantly conforms to the expectations of others and uncritically seeks the admiration of everyone, and constantly uses manipulation to climb through the social hierarchy. Ultimately, as a result of his success with these methods, he plays a role in designing some of the most important buildings in New York City. At the end of the novel, however, he realizes that no amount of wealth, popularity, or architectural prestige will make him happy; he has utterly lost and destroyed his capacity to engage his mind in an independent and first-handed way.

What is missing from Keating's work? Keating lacks productive activity as an genuine or authentic value, in the sense that in his life it not only plays no role in his psychic sustenance, but contributes to his own psychological destruction. Instead of discovering and defining objective standards for good architecture, and cultivating his skills to promote those and seek to expand them, he panders to the standards, expectations, and whims of others whenever possible. Instead of seeking to earn achievements in work through his own independent mental effort, he seeks and gains achievements that are only achievements in name; commissions that were granted to him as a favor instead of for his skill, using designs that he copied from others or begged others to do on his behalf, and with utter disregard for the meaning, purpose, and value of architecture in human life. This is why ultimately his work, despite his material success, becomes utterly meaningless to him by the end of the novel; Keating lacked the *techne* component of creativity

that allows production to psychologically sustain oneself and ends up without self-esteem, purpose, or pleasure in his existence.

What these four characters all illustrate is the psychological (or, in the case of the criminal, the material) cost of uncreativeness, primarily in the form of a loss of self-esteem or purposefulness. More fundamentally, by evading productive activity and its cultivation as a value, these characters undermine their own nature as human beings — since we are organisms whose *bios* is sustained by production.

The account of creativity I have presented may raise certain concerns or questions for the reader. In what follows, I will add some clarifications to this view, as it may aid in anticipating objections.

V. Clarifications

a. Creativity as Amoral

While the above characters have hopefully gone a long way to show the psychological and material cost to well-being faced by those who live uncreatively, it might be thought that I have merely shown some examples of how certain types of unvirtuous characters also fail to live creatively, but there could equally be some unvirtuous characters who exhibit true creativity. It might be thought, in other words, that creativity is by itself amoral. This might be for two distinct reasons. First, perhaps unjust people exhibit high levels of creativity. Secondly, people who are not creative can still be highly moral. If these are both true, it follows that creativity is neither necessary nor sufficient for virtue.

I shall take these two cases in respective order. First, I must note that imaginativeness (a knack for coming up with new ideas) or cleverness (skill in achieving one's desired ends) can often look like creativity, but are traits of a different sort. This point is parallel to a similar one Aristotle makes in distinguishing between practical wisdom (*phrónēsis*) and cleverness (*deinotēs*).[72] In clarifying this distinction, Aristotle notes that one's capacity and skill in achieving a desired end (or a set of desired ends) is insufficient for one's being practically wise. This same perspective applies to creativity. For instance, a criminal can display high imaginativeness in his bank heist plans, but he is not guided by actually creating rational value in a craft; he is rather guided by expropriating the values or productive activity of others. Similarly, a child may display high imaginativeness in playing, or cleverness in pulling a prank on his parents. We should again not confuse these with creativity, though creativity certainly often does involve imaginativeness (as I have illustrated in some of my examples). Often, putative examples of creative but morally corrupt individuals may involve these features: they have a high level of imaginativeness or cleverness in order to achieve certain efficient goals they have, but are not guided by creating appropriate values for a craft or promoting their ability to create values by rational activity. Now, there may be some cases of, e.g., brilliant artists or scientists or entrepreneurs who nevertheless had terrible character flaws. To take two examples, consider that Henry Ford was widely known to be anti-Semitic, and that Isaac Newton was a

[72] *NE* 6.12, 1144a20-29.

shareholder in the South Sea Company, which dealt in the Atlantic slave trade.[73] When judging such characters, it is appropriate to notice that they exhibited a high level of creative achievement despite their flaws. Therefore, it is appropriate to say that they only had creativity as a virtue to a certain degree, or perhaps, in certain cases, lacked it. Since the virtues are unified, one cannot be fully rational in one domain (production) without being rational in other domains (justice, or judging of the character of others). In any case, I agree that creativity is insufficient for virtue if we mean by that "considered apart from the other virtues."

In discussing non-creative individuals, we must distinguish two important cases. The first are individuals who are not creative due to their own choices, evasions, or accepted defects in character (such as laziness, opportunism, self-hatred, etc.). These individuals we should classify as both uncreative and immoral, as the characters above (to greater or lesser degrees) illustrated. On the other hand, it is true that some individuals in tragic contexts, such as totalitarian dictatorships, extreme poverty, or slavery, may be unable to engage in production due to external circumstance. In such cases, we properly evaluate such lives as defective but not in such a way that the agents living them are blameworthy or irrational. Rather, they are simply denied (by others or by circumstance) the opportunities for cultivating and exercising virtue that are needed for flourishing. This does not prove that creativity is not necessary for virtue, since non-virtue and blamewor-

[73] Alice Marples, "The South Sea Bubble of 1720" https://blog.nationalarchives.gov.uk/the-south-sea-bubble-of-1720/

thiness can come apart; cultivating virtue, from the Aristotelian perspective, requires certain external resources and circumstances, and since human beings are not omnipotent, acquiring these resources or finding these circumstances is not guaranteed.

b. Creativity and Efficiency

One might think that even if creativity often leads to greater efficiency or effectiveness in production, this is certainly not necessarily so. In fact, creativity and efficiency are often opposed. For instance, it seems that someone might do much better in terms of sustenance in regards to building wealth by using known methods of business rather than by attempting to introduce novel approaches. Were they to focus too much on novel approaches, they might fare worse as far as efficiency. Therefore, the objection might go, creativity is not always consistent with the demands of successful production.

What such an objection fails to recognize is that efficiency and creativity both can only be judged from the perspective of a wider context of one's goals in work. For instance, out of context, a coffee roaster putting beans in a roaster is not an expression of creativity, but it may be as part of the activity of creating a new coffee business. Similarly, "efficiency" can only be judged by reference to the end to which a particular action is the alleged efficient means. For instance, defrauding customers with shoddy products may be "efficient" for maximizing short-term profit, but not for achieving a life of flourishing. In general, issues of prudence or practicality are integrated in the eudaimonistic approach because the overall proper final end of an individual's life is their own flourish-

ing, understood as a life of rational value achievement and virtue. Thus, there is no prima facie conflict possible between creativity and efficiency or practicality if it is a genuine virtue. It is true that creativity does not call for novelty or innovation at all times or circumstances; my claim that appropriate novelty is essentially to creativity is that it is an essential perspective and guiding component of an excellent approach to production. Moreover, as I explained above when discussing novelty, it is often the case that novelty is an effect of one's problem solving within a domain, and that creativity does not require or involve aiming at novelty for its own sake. Taking these into consideration, using, e.g., known methods of entrepreneurship may be entirely appropriate (or even necessary) within the context of pursuing some other or more specific appropriate novelty, such as improving an existing computer application. A defective case would be instead where, say, an entrepreneur is exclusively guided by conformity or copying of others without caring about providing new value to the domain.

In this chapter I have shown that creativity can and should be understood along the parameters according to which Neo-Aristotelians conceive of the traditional virtues such as justice or courage. Creativity involves an intellectual grasp of the human *bios,* an emotional attachment to the joy of new ideas and opportunities, and a motivation to create new and appropriate values. I also showed how contemporary psychological research on creativity integrates well with my approach, since creativity can be understood as an expression of ordinary cognition and as a skill that can be cultivated. Finally, I showed what is at stake in lacking creativity by illustrating various vicious characters. By disen-

gaging from production, they undermine their psychic well-being and ultimately their own nature as human beings.

What remains to be discussed, then, is how my view may positively impact future directions in Neo-Aristotelian ethical naturalism, as well as addressing possible objections to my account.

VI. Future Directions for Neo-Aristotelian Ethics

Let us take stock of the arguments presented thus far, in particular in light of where I began. I began with the observation that productive activity is insufficiently addressed in Neo-Aristotelian ethical naturalism. Although I do not doubt that most philosophers working in this area find production important and perhaps even relevant for virtue, they do not afford it the centrality it deserves. I argued that this ultimately is a problem that Neo-Aristotelianism has inherited from Aristotle himself. When we look at his own views, we find that his reasons for rejecting a life of productive activity to be ill-founded, both because of his faulty distinction between practical and productive activity and because he thought a good life had to be based around intrinsically valuable activities. To diagnose this problem, and simultaneously to address issues of objectivity at the foundation of Neo-Aristotelian naturalism, I started at the beginning and reviewed the biological foundations of ethics. This is important in particular because Neo-Aristotelianism is facing an identity crisis of sorts in terms of how its foundation is to be understood, and how it establishes objectivity. I argued that in fact we need not discard Aristotle's Function argument, despite its problems, but we can maintain a form of it that is consistent with contemporary biology if we understand functions in a new way, using the *Bios* framework. In doing so, we find that functions are components of a *bios* that contribute to its self-sustenance. Ethical values turn out to be functional in the sense that they have significance for our ability to sustain our lives, both from a material and psychological

perspective. This in turn drastically changes the eudaimonistic framework, since to account for this we must see self-sustenance as a constraint on *eudaimonia*. Since production is the basic human form of sustenance, it is itself a central constituent of eudaimonia. This is a view that Aristotle himself rejected, but can be found in certain strands of historical philosophical thought, notably in Karl Marx and Ayn Rand. The role of production in human life can be seen not just in its material role but in how it engages us motivationally and by creating important states of pleasure and engagement in flow. Since production is a central constituent of *eudaimonia*, I argue that creativity is a crucial moral virtue: the virtue of cultivating excellence in productive activity. This virtue has two components, the *techne* component (being guided by appropriate novelty) and the *poesis* component (earning one's keep through subsistence or trade). I show that this virtue meets all the standard constraints that Neo-Aristotelians have already identified virtues must have, and I show further what is at stake through the illustration of vicious (or less than virtuous) characters who lack creativity and how it impacts their ability to flourish.

I now wish to turn to some of the implications I think my arguments should have going forward, as well as future questions that ought to be addressed in time. At the end of this discussion, I shall also attempt to anticipate some objections, in order that my view may be further clarified.

I. A Greater Focus on Creative Work

In this work I have left many questions aside regarding the nature of creativity, which themselves deserve further treatment from within the Neo-Aristotelian paradigm. The following are a selection of some that come to my mind: What is the value of self-expression in creativity, and is it central to the virtue of creativity? How do we create the best conditions for production in society from a political perspective? Are there certain domains or fields of work that are inherently more conducive to creativity than others, and which are those? How should we educate children about the value of production and creativity? How does this inform a Neo-Aristotelian view of creativity in art or the creation of aesthetic values more specifically? Are there domains of production in which no appropriate standards can be found? If so, what is the implication of that for understanding creativity? How should pursuit of creativity be balanced against other important values in life such as friendship?

These are all, in my mind, fascinating questions that would be fruitfully investigated from within the framework I have set up. In particular, ethicists should have a greater and ongoing interest in the nature of creativity and its relation to ethics. It is even possible that ethical views beyond Neo-Aristotelian views may find the relationship between creativity and ethics to be insightful and worth exploring.

II. A Renewed Defense of Neo-Aristotelian Ethical Naturalism

The *bios* view affords a renewed conceptual framework that highlights the distinctive contribution Neo-aristotelianism makes to ethics. We saw that in Hursthouse and Foot, the Neo-Aristotelian focus on natural goodness evident in writers from Michael Thompson to Peter Geach turned out to be less of a scientific continuity and more of a model or analogy for understanding a human practice of reasoning. From this perspective, the unique and powerful approach that Neo-Aristotelian naturalism initially brought forward, starting with Anscombe and Geach, risks becoming more akin to a Kantian project of describing the constitutive structure of rational agency, and deriving ethics from that structure. The *bios* view distances itself from that approach by taking on the oft-dismissed project of grounding ethical norms in scientific facts about our biological nature. These facts are scientific and objective in that they fundamentally rely upon a scientific perspective on organisms that is essential to the explanation and conceptualization of living organisms.

This framework therefore affords ethical naturalism an objectivity familiar to us from the sciences, and gives Neo-Aristotelian naturalism a powerful way to respond to charges of relativism or hand-waving. While much more could be written on the precise nature of ethical objectivity, my work suggests several pathways of further research, not the least of which may be a greater interest in the work of Ayn Rand on objectivity, as her work has particularly inspired my approach. In addition, I think greater clarity is gained

by my view as it relates to McDowell's famous "Neurathian" approach; it is clear from my discussions that a Neurathian approach in the sense of beginning an inquiry from known and observed phenomena (including values) does not preclude the establishment of a foundationalist approach that seeks the objectivity of the sciences.

III. Integration with Positive Psychology

Many of the arguments in my view drew heavily on promising insights from positive psychology, as exemplified in this dissertation in the work of Edward Deci and Richard Ryan on self-determination theory, on the one hand, and Mihalyi Csikzentmihalyi on flow, on the other hand. Going forward, I believe greater discussion of the intersection of research in the psychology of happiness and virtue and philosophical ethics would be very fruitful for Neo-Aristotelian naturalism. This is particularly true since psychology is already so key to many of the core claims at the heart of these approaches, as can be seen in the situationist debate about virtue ethics.[1] Work in positive psychology on well-being, motivation, creativity, work, and relationships provide us not only with potential conceptual frameworks and distinctions which may clarify our views, but with a vast supply of observations and empirical data that may illustrate or illuminate various issues within ethics.

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[1] See for a general discussion Mark Alfano and Abrol Fairweather, "Situationism and Virtue Theory," in Appiah, Kwame Anthony. *Experiments in Ethics*. Cambridge, MA: Harvard University Press, 2008. See Daniel Russell, *Practical Intelligence and the Virtues*, for a strategic discussion of the resources for responding to the challenge from within virtue theory.

Somewhat recently, Michael Bishop, in writing about well-being, has argued that we should start from the assumption that well-being is a "real condition" that "philosophers can theorize about, that psychologists can investigate, and that laypeople can successfully talk about…"[2] and that therefore it is something that can be identified and characterized by standard empirical methods. This suggestion I would extend to thinking about *eudaimonia* and virtue more generally. The role of philosophy is crucial and fundamental, but it is not logically independent of (or insulated from) scientific investigations; rather, philosophy must work to continually (at a broad level) integrate and interpret the observations and evidence from fields such as psychology, biology, etc. as they may bear on philosophical issues.[3]

In sum, the arguments I have presented in this dissertation can serve to contribute to the clarity, argumentative strength, and relevance of Aristotelian Naturalism as a promising and distinctive approach to ethics.

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[2] Michael Bishop, *The Good Life* 16.

[3] Others have called for such an approach as well, such as Alexandrova, Anna, 2012. "Well-Being as an Object of Science." Philosophy of Science 79: 678–689, and Haybron, Daniel, "What do We Want from a Theory of Happiness?" In *Metaphilosophy* 34: 305-329.

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