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14. Evolution, Human Enhancement, and Human Nature: Four Challenges to Essentialism in Theological Anthropology

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Abstract

The Christian theological tradition has been predominantly essentialist: it has held that creation is ordered by God's providential work into natural kinds, and that each kind exemplifies a nature proper to it. Yet essentialism is often taken to be a discredited position in the modern academy. This paper assesses four contemporary arguments against essentialism: a broadly Wittgensteinian one; a Derridean one; an argument from evolutionary biology; and an argument from transhumanist thought. In so doing, it seeks to establish the criteria that any contemporary restatement of essentialism must meet to be considered a success.

Keywords: theological anthropology, evolution, transhumanism, human enhancement, human nature

Introduction

At its inception, at least, philosophical essentialism could be described as a commonsense position. Here, I have five apples in front of me: what accounts for their all being apples, rather than some other sort of fruit? I have five acorns: what accounts for the fact that, if all five are planted and grow, each will grow into an oak tree, rather than some other sort of plant? The arctic fox's color changes to white as summer passes into winter: what accounts for it being the same sort of thing both before and after this change, in spite of the fact that its observable qualities have changed quite dramatically?

Many philosophers have – or at least descriptively, many philosophers historically have had – the intuition that the answers to these questions tell us something about the thing itself, about the “being” of the thing. Attention to Aristotle's texts underlines the rather pedestrian roots of essentialism: the word “essence” frequently renders some version of Aristotle's own τὸ τί ἦν εἶναι, the “what it was to be” or the “what-being-is” for a thing (xi). Evidently, the thing before us exists; *how* does it exist – what *sort* of existent is it? A thing's manner of existing has all sorts of implications for how we might expect it to act, as, for instance, we might think it wonderful but anticipated to find a salmon jumping upstream to return to its spawning grounds, but surprising and bizarre to find our next-door neighbor doing so. The essence of a thing – its manner of existing, what it is for it to be the sort of thing that it is rather than something else – is supposed to tell us something intrinsic about the thing, to be a necessary feature of a true description of the thing. It is supposed to be part of its ontology.

This essentialist manner of thinking can be discerned within Christian thought from quite an early date, and is arguably present in some form within the text of scripture itself. By the early centuries of the Church, essence and the related categories of substance and nature were frequently used to describe God's providential ordering of creation into natural kinds. In the patristic and medieval periods, for instance, theologians commonly held that the natures or forms of creation exist within the divine life itself as “divine ideas,” the patterns in eternity of what God wills to create in time (see Augustine: 57-58). In the early fourth century, categories of substance and nature became a focus of controversy in relation to the doctrine of the Trinity, as early Christian thinkers assessed whether substance-language might validly be applied to God and whether the same nature should be attributed to the Son and Holy Spirit that is attributed to the Father. Essentialism again became a point of controversy in the fifth century, as theologians disputed how Christians should understand the Word's assumption of human flesh. We may observe, for instance, the clear essentialism of the “definition” of orthodox belief about Christ put forward by the Council of Chalcedon in 451, which describes Christ as “acknowledged in two natures (ἐκ δύο φύσεων),” noting that “the character proper to each of the two natures was preserved (σωζομένης δὲ μᾶλλον τῆς ιδιότητος ἑκατέρας φύσεως) as they came together in one Person and one hypostasis” (Denzinger: 302).¹ One divine nature, one human nature, each with their own proper character; this is philosophical essentialism, if ever there was such a thing. More than this, Chalcedon's theology serves as the cornerstone for at least the next thousand years of christological development in the Latin West and

¹ References to Denzinger are customarily given as reference to the number assigned to a given text, rather than the page number on which that text appears. I have followed this convention throughout this paper.

Eastern Orthodoxy. As I will argue more fully below, conciliar christology assumes – and if it is held to be authoritative, seems to require confessing – that there is such a thing as human nature, so that it might be assumed by the Word (λόγος) in the Incarnation.

This is a problem for Christian theology, for essentialism is one of the most embattled theoretical postures in our contemporary intellectual climate. Whether on philosophical or scientific grounds, essentialism – and more particularly, anthropological essentialism, the claim that there exists some nature of what it is to be human – is commonly seen as an unsustainable position, a holdover from classical metaphysics that has been decisively refuted by modern thinking. This paper undertakes a reassessment of this judgment through two related aims: first, it attempts to clarify what I take to be the principal critiques of essentialism current in contemporary philosophy and theology; second, it offers a sketch of an account of essentialism that might respond to these critiques.

In this paper, I bring together four critiques of essentialism rarely treated synoptically. The four challenges I will address are a broadly Wittgensteinian objection, from the Anglo-American philosophical tradition; a broadly Derridean objection, from the Continental philosophical tradition; a challenge raised by contemporary understandings of species within evolutionary biology; and an ethical challenge to anthropological essentialism raised by transhumanist thinkers. The first two challenges will provide key reference-points in my reconstructed account of theological essentialism. The latter two objections lend a bit of ethical urgency to this task. As Gerald McKenny notes, “one context in which the normative status of human nature simply as such is at issue is the prospect of the ‘posthuman,’ in which biological alterations amount to a change of the nature of at least some humans into something else” (McKenny: 15 n.7). Transhumanists propose that through pharmaceuticals, cybernetics, nanotechnology, or genetic modification,² human persons might become something other, something no longer identifiable as human; and that, in view of dramatic extensions to human capacities and lifespans, these aims are desirable. One argument often used to buttress these transhumanist hopes is that evolutionary theory has exposed the falsehood of essentialism: there is no essence of human nature that can be picked out in the midst of the dramatic changes in human biology as seen in the evolutionary record. And since the evolutionary history of humanity is a history defined by change, there is no reason not to undertake quite radical alteration of the conditions of human life.

The first three critiques I will assess are critiques of essentialism *as such* – critiques of essentialism’s viability as a description of what the world is fundamentally like, of “essence” as a category that carves reality at the joints, reflecting real distinctions in the kinds of things that exist in the world. The final critique is a functionalist one, arguing that if there is some essence of what it is to be human, this fact has little normative significance for us: we should feel free to leave human nature behind. These global critiques of essentialism and its normative significance may be clearly distinguished from more restricted critique of some particular construals of essence or other. These restricted critiques are very valuable; it is, to my mind, indisputable that very many (and likely all) historical construals of what human nature is like have been some combination of damagingly racist, sexist, heteronormative, colonialist, and

² Janet Kourany identifies these as the four general categories of human enhancement technologies.

anthropocentric. The many intellectual traditions that have raised these critiques of essentialist positions have convincingly made the argument that we should be deeply suspicious of the ethical and political implications of any particular understanding of human nature, and in arguing for a reimagined form of philosophical essentialism, I have no desire to exempt my own account from this suspicion.

As important as these challenges to particular construals of essence are, they do not generally argue against essentialism as such. The claim that all conceptions of essence are historically and socially constructed is wholly compatible with there being some fact of the matter about what exists being divided into natural kinds; so too, critique of some particular construal of essence as (for instance) damagingly patriarchal does not preclude holding that all human persons exemplify some common nature that demands they be treated justly. Ethics, perhaps even more clearly than fundamental metaphysics, seems to require some account of the human. With this proviso in mind, let us move to the four challenges themselves.

A Challenge from Anglo-American Philosophy

There are, undoubtedly, readers who will be some combination of surprised and dismayed to read that my first challenge to anthropological essentialism comes from the Anglo-American philosophical tradition. Analytic metaphysicians are likely the most careful and consistent defenders of essentialism within the modern university. While extra-disciplinary conceptions of Anglo-American philosophy are still too often defined by the sweeping critiques of metaphysics undertaken by logical positivists like Carnap and Ayer, the last half-century has seen a revival of analytic metaphysics, establishing its position as one of the central subdisciplines of contemporary philosophy (see Simons; Williamson). The metaphysics of essence has enjoyed a particular resurgence, and the story of its return to prominence as a category of philosophical analysis might be told through a series of standard reference-points including essays by W. V. O. Quine, Alvin Plantinga, Saul Kripke, Hilary Putnam (1973, 1975), and Kit Fine (see Bird). It would be a mistake, then, to think that Anglo-American metaphysics on the whole is opposed to the category of essence, or to the claim that there is some essential property of being human possessed by all human persons.

The challenge to anthropological essentialism I wish to consider hails rather from the branch of Anglo-American philosophy often described as “ordinary language philosophy,” taking its bearings especially from the later work of Ludwig Wittgenstein. Wittgenstein famously comments in the *Philosophical Investigations*,

When philosophers use a word – “knowledge,” “being,” “object,” “I,” “proposition/sentence,” “name” – and try to grasp the *essence* of the thing, one must always ask oneself: is the word ever actually used in this way in the language in which it is at home? –

What *we* do is to bring words back from their metaphysical to their everyday use (§116).

Wittgenstein points here to a philosophical tendency that Stephen Mulhall has called the “subliming” of our language: “The philosopher has extracted naming from its contexts in our everyday life with words, and hence arrived at the idea that naming is a single, unique, and superlatively definite kind of relation between word and thing – a hidden connection of

crystalline purity against which our ordinary practices of naming appear as impure, cloudy, and inexact” (Mulhall: 94). As we go through our daily lives, we engage in a great variety of linguistic acts: we say that we know that $3+4=7$, or that the Earth is the third planet from the Sun; we know how to fix the broken cabinet; we already know the person to whom our friend is introducing us. Each use of the word “know” seems to us to be relevantly similar to the other uses, such that all the uses seem to have something in common, what Wittgenstein calls a “family resemblance” (§67) to one another. And on the basis of this family resemblance, we speak of ourselves as possessing the relevant knowledge about mathematics, or astronomy, or cabinetmaking, or about a mutual acquaintance.

So far, so good: all these are locutions we utter on a regular basis, in the course of our everyday use of language. The metaphysical use – the moment of “subliming” – takes place when we seek after an account of what our knowledge intrinsically is; when we ask after a description of the object to which our denomination of “knowledge” corresponds. Surely, if we know all these things, we must possess knowledge of them; but what then *is* knowledge, essentially? What *is* knowledge, such that we may validly state that we *know* something in each of these diverse utterances? What had been a similarity between various sorts of linguistic acts has now been reified into a substantive entity – *knowledge* – that is taken to underlie and ground all our ascriptions of knowing.

This philosophical tendency is what Cora Diamond has described as the “metaphysical spirit,” contrasted to Wittgenstein’s own “realistic spirit” (21); yet it is important to note that what is under critique is not the discussion of philosophical abstractions (like “knowledge”) as such. As Diamond notes, “What is metaphysical here is not the content of some belief but *the laying down of a requirement*” (19). The “metaphysical use” of terms to which Wittgenstein objects is their use to justify and chasten our everyday speech: because *knowledge* is essentially like *this*, you must not speak in *that* way. Metaphysics sublimates a concept by picking out the essence that it takes to underlie our diverse utterances, holds this sublimated term to correspond to what there truly is, and then lays down a requirement for how we must speak if we wish to speak truly about the world.

The fundamental challenge is not an epistemic one: that we lack the knowledge of how the world is such that we can pick out the *correct* correspondences between our concepts and what there is. Neither is it laying down a different sort of philosophical requirement of our language: that the sense of our concepts is given by correspondence not to what there is, but to communal norms (see Diamond: 26-29, responding to Onora O’Neill). It is, rather, an observation about how language works: because our everyday use of language occurs in the course of our concrete lives in the world, and because speaking both *is* and enables further action in the world, any metaphysical requirements we might lay down on our speech add nothing to conform our speech to the world more fully. Our metaphysical pronouncements are only further linguistic acts, given their sense through their resemblance to other linguistic acts and their use in relation to other utterances. At best, they contribute to our lives in the world in the very same way all our other everyday acts of language do; at worst, they lead us away from the world into a self-referential maze of our own devising. Abstract entities there may be, but the belief that metaphysics can anchor our language to them in such a way that our speech might be grounded and normed by them is an illusion.

The challenge to anthropological essentialism, then, is that *human nature* is just one more sublimed abstraction. We very commonly engage in activities alongside other human persons, and might respond that they were human persons if we were asked (under the right circumstances) what they were, but no occult metaphysical posit is required to justify our attributions of humanity to those around us. We call them human because we interact with them humanwise: calling them by name, conversing with them, sharing meals with them, caressing them, making promises to them, weeping alongside them, grieving them. These are the many linguistic acts that give sense to the linguistic act of identifying them as human. The requirement of an essence of humanity that purportedly grounds or disciplines these patterns of speech is what Diamond calls an “idle wheel” in our language use, adding nothing to its actual function (45, referencing Wittgenstein: §271). Once this is recognized, the task of defining such an essence will be seen for what it is: not a pressing philosophical task, but (at best) a diversion – the sort of thing you do on holiday (Wittgenstein: §38).

A Challenge from Continental Philosophy

Here again, while a number of different critiques of essentialism about human nature might be launched from within the Continental philosophical tradition, I have in mind a particular challenge: Jacques Derrida’s deconstructionist critique of metaphysics. Derrida’s project may profitably be understood as a continuation of the Kantian project of critical philosophy, inquiring after the conditions of the possibility of human reasoning (see Hart: 71-74). Kant argues that even the most basic categories of rationality employed within classical philosophy – for instance, categories like substance and accident, cause and effect, possibility and necessity – cannot simply be assumed to be features of the world itself, but should rather be considered structures according to which our minds must organize our experience of the world. If we take these categories to be features of reality and thus reason about what exists in the world on the basis of them, we have grounded philosophy on an untrustworthy foundation. Better, Kant thinks, to pursue a new “transcendental” philosophy that seeks to ground knowledge in reflection on the structures of mind by which we experience the world. Though we cannot take for granted that these categories are features of the world itself, we can (he thinks) know for certain that these categories are necessary features of our experience of it.

In the generations after Kant, this presumption is itself called into question, most famously in Hegel’s arguments that the categories of reason are not static, but develop historically: there is not simply one necessary conception of time or substance, but many concepts that change through the histories of human thought and culture. More radically, however, Nietzsche calls into question one of Kant’s most basic presumptions: reason’s very need for a ground. While Kant found the grounds of scholastic and rationalist philosophy wanting, he nevertheless sought to take the transcendental categories themselves as a ground for philosophical rationality: because he considered them the conditions of possibility for all experience and judgment, they could serve as a sure starting-point for philosophical reasoning. Nietzsche, by contrast, articulates a thoroughly nonfoundationalist philosophy in which reason *has* no necessary ground. The standards according to which we judge what is rational and what is not are not discovered as a feature of the world or of mind, but are rather imposed through the operation of power. There is no necessary ground for philosophical reason, for “all

grounds are seen as fictions” (Hart: 74). As a result, there is no one true description of the world, only multiple competing interpretations of it.

Derrida’s work presses this critical trajectory still farther. While Nietzsche’s work challenges the presumption that reason depends on some necessary ground, Derrida observes that even this point depends upon a distinction between reason’s ground and its non-ground. Nietzsche is confident that he knows what it would look like for reason to be grounded in necessary standards of judgment: it would look like Platonist speculation, or Cartesianism, or Kantianism. Similarly, he is confident that he knows what a groundless view of reason might be: judgments of truth would be made as a result of operations of power (we might say, of cultural constructions of truth), rather than by any necessity internal to reason. Derrida thus asks: what requires this distinction? How can Nietzsche (in common with most philosophy) simply presume this distinction between grounded and ungrounded reason? Nietzsche seems to assume this distinction is necessary, just as Kant had assumed the necessity of the categories. Derrida, by contrast, offers a view of reason that “seeks to reveal the systematic link between a text’s ground and its non-ground” (Hart: 74). Reason is not simply grounded or ungrounded: all patterns of reasoning, all philosophies or conceptual schema, are constituted through a historical process by which reason’s ground and non-ground are defined.

One of Derrida’s guiding intuitions is that the concepts we employ in reasoning are defined by distinction – by judging what falls within the domain of that concept (what the Anglo-American tradition would call the “intension”) and what falls outside it. So, for instance, Derrida reflects in his later writings on how our conception of the “human” is defined at least in part by contrast with our conception of the “animal” (2008). In employing the concept of the “human,” we attribute a relevant “sameness” to all that to which this concept applies, as well as a relevant “otherness” to all that to which it does not apply. All those we call human are the same in that they are human, rather than animal; and similarly, all animals are the same in respect of not being human. This pattern of reasoning about humans and animals may be useful in some circumstances, but it also may have negative consequences for thought; it might, for instance, obscure differences within the monolithic “otherness” of the animal world, or obscure important respects in which those things we call “human” are the same as those we call “animal.” While any individual concept may illuminate some aspect of the world, rendering it present to the intellect, it does so only at the expense of obscuring others, rendering them absent. Perhaps most significantly, the concept’s ability to render some features of the world intelligible is inseparable from that which the concept obscures – the insight is accomplished through the exclusion of that from which the concept is distinguished. On Derrida’s account, “the signified concept is never present in and of itself, in a sufficient presence that would refer only to itself. Essentially and lawfully, every concept is inscribed in a chain or in a system within which it refers to the other, to other concepts, by means of the systematic play of differences” (1982a: 11). No concept can fully ground itself, but “signifies” or enables understanding only as it assumes a place within a broader and historically contingent linguistic order. In order to facilitate understanding, one requires both the ground and the non-ground in their relation to one another.

Derrida’s analysis applies at the level of the individual concept, but a frequent theme of his work is the application of this insight about the mutual implication of the ground and the non-ground to broader philosophical approaches. Over and over throughout his writings, he

undertakes to prove that even those predecessors whom he regards as having made significant philosophical advances nevertheless include, at a decisive moment in their philosophical systems, a conceptual ground that obscures its non-ground. So, for instance, he judges Husserl's notion of the "Living Present" to be an unhistoricized absolute, an "Idea in the Kantian sense which never phenomenizes itself" (1989: 136-37); Heidegger's "fall from primordial into derivative time" deploys an unargued-for distinction between the primordial and the derivative that grounds his conception of Being (1982b: 63); Levinas bases his philosophy on an opposition of the infinity of the face to the totality of Being without asking whether "the experience of the face [could] be possible, could it be stated, if the thought of Being were not already implied in it?" (1978: 143). While Derrida establishes the critique through often tortuous exegesis of each thinker, the philosophical error exhibits the same structure in all cases: each thinker builds his philosophical system on a moment of absoluteness, some concept or distinction that is taken as a necessary but unargued-for philosophical ground. In so doing, the philosopher forgets that this concept requires implication within a broader linguistic structure that renders it meaningful. The concept enables understanding only as it is given its sense through the process of distinction, the historical interplay of ground and non-ground.

In privileging some concept or distinction as absolute, the philosopher presupposes its necessity; and in building from a necessary ground, the philosopher (perhaps unwittingly) aspires to the finality of her conceptual scheme. If the ground the philosopher proposes truly is necessary, then it is a necessary feature of any true description of the world: it is a concept or distinction that can be applied universally, valid always and everywhere regardless of the differences between language-users. Such a concept or distinction serves as the "fixed center of the system, the governing principle of its structure and the sole element which escapes structurality. From this one grounded element, Derrida contends, it is possible to generate a system which, in its internal arrangement, lays claim to being both consistent and complete" (Hart: 83).³ It is this "totalization" that Hart identifies as the "constant target of deconstruction" (82), and this philosophical quest "for an *archia* in general" that is "the 'essential' operation of metaphysics" (Derrida 1982b: 63). "Metaphysics" in Derrida's use of the term is thus not primarily an area of philosophy that discusses topics like "being," "essence," or "cause," but rather the temptation toward totalization, the implicit or explicit aspiration for a conceptual scheme that is necessary for understanding the world truly.

Yet it is important to note that, on Derrida's understanding of the term, metaphysics is inescapable. As Christopher Norris has observed, the metaphysical temptation to which Derrida believes Husserl, Heidegger, and Levinas each succumb "is *not* . . . the kind of aberration that might have been avoided had they only exercised a greater degree of critical acumen. On the contrary: he often goes out of his way to insist . . . that there simply is no thinking 'outside' or 'beyond' the remit of metaphysics" (16). Indeed, Derrida recognizes that *his own* philosophical project cannot wholly be purged of metaphysics. In place of the

³ In addition to Husserl, Heidegger, and Levinas, Derrida identifies the following concepts as philosophical grounds appealed to by canonical figures of the Western philosophical tradition: "'*eidōs*' (Plato), '*ousia*' (Aristotle), '*esse*' (Aquinas), 'clear and distinct ideas' (Descartes), 'sense impressions' (Hume), '*Geist*' (Hegel), 'logical simples' (Russell)" (Hart: 83).

philosophical ground that he identifies in his forebears, Derrida famously offers the figure of *différance*, the endless play of concepts or signs in their mutual relation to one another. Any concept is only able to enable understanding inasmuch as it is defined against and in relation to other concepts, and this is worked out through a history of linguistic acts. So too, the concept can differ from itself: the fact that its significance is worked out historically opens the possibility that it might come to be related to other concepts in a new way – any individual concept may yet come to mean something slightly or even dramatically different than it does now.

Différance, within Derrida's work, is the condition of possibility of both the significance and possibility of change in significance of any concept or sign: it is "no longer simply a concept, but rather the possibility of conceptuality, of a conceptual process and system in general . . . *Différance* is the non-full, non-simple, structured and differentiating origin of differences. Thus, the name 'origin' no longer suits it" (Derrida 1982a: 11). It is meant to mark off the historical contingency and thus potential for change in signification of any concept or sign; it is thus also an inherently destabilizing force, meant to unsettle the finality of our philosophical concepts. Yet, to the extent that we seek to understand *différance* itself, to the extent that we conceptualize it, we succumb to the metaphysical temptation: "For us, *différance* remains a metaphysical name, and all the names that it receives in our language are still, as names, metaphysical" (Derrida 1982a: 26). Whenever one speaks of *différance* or the trace or any of the other names that Derrida employs throughout his writing, then, one is attempting to bring to conceptuality that which both enables and escapes all conceptualization.

When we speak of a Derridean "critique of metaphysics," then, we should not take this to mean that there is a manner of doing philosophy wholly innocent of metaphysics. As seen in the quotation above, Derrida holds that all names (among which, concepts) are, as such, metaphysical. All concepts privilege the "sameness" of what they are able to render intelligible – enabling us, for instance, to identify all people as falling under the domain of the concept "human" – at the cost of obscuring the differences that persist both among humans and within the non-human world. Use of the concept "human" does not render us wholly incapable of pointing out differences or particularities among persons, but it often smoothes out or obscures these differences by teaching us to view all persons as being the same with respect to their humanity. So, for instance, thinking of rationality as a normative feature of human life might prevent me from recognizing the particular form of life of someone who is profoundly mentally disabled, teaching me rather to assimilate her experience to my own. More troublingly, such a rationalist construal of normative humanity might lead me to view her as living at the margins of or even outside the domain of our concept of the human. At this point, the relation of ground and non-ground in the definition of the concept becomes quite important: if the concept of the human is defined in significant part by its opposition to the "animal," our treatment of animals is likely to serve (and indeed, has served) as a pattern for our treatment of those we regard as not or not fully human. The basic claim of Derrida's writings on violence and metaphysics is not that any concept-use necessarily leads to grave violence. It is rather that the idealizations of our concepts tend to enable some forms of violence rather than others, and that, to the extent we take our concepts to be rationally

necessary and universal, our violence will consistently fall on the marginalized “others” whose particularities do not fit neatly within the domains of our concepts.⁴

To forestall this authorization of violence, Derrida turns to the work of deconstruction: the use of metaphysical concepts to undermine and destabilize the very patterns of philosophical reason that produce them.⁵ By constantly calling attention to the historical production (and therefore non-necessity) of our concepts, Derrida’s hope is that violent patterns of human society may be challenged, and presently unforeseeable patterns of human society may yet emerge.

Derrida’s critique of metaphysics thus does not lead to the absurd claim that we can simply do without concepts, or escape metaphysics entirely. Concepts really do assist in our understanding of the world, but at a cost: their work of illumining some aspects of the world obscures others. Conceptuality’s intrinsic movement is toward totalization, and so our use of philosophical concepts must consistently be leavened by their deconstruction.

On Derridean terms, then, the critical error of anthropological essentialism is that it self-consciously pursues totalization. Rather than simply employing metaphysical concepts for both understanding and deconstruction, anthropological essentialism at least seems to pursue conceptual totality: a concept of the “human” that is ahistorical, universally valid, and required for a true description of the world. Precisely as a quest for the *essence* of human existence, anthropological essentialism seems incapable of incorporating the deconstructive moment that brings the historicity of the concept to the fore. Responding to this challenge will require a concept of the human that – while inescapably metaphysical – places itself in question and thus invites its own deconstruction.

A Challenge from Evolutionary Biology

The third challenge to essentialism about human nature emerges from reflection on the evolutionary history of humanity. It is often assumed that contemporary evolutionary theory has decisively undermined essentialist positions such as this one. Ernst Mayr, one of the principal architects of the modern synthesis of evolutionary biology, famously held that Darwin’s theory had effected a shift from typological thinking to population thinking in regard to species membership. Typological thinking regards each individual as the instantiation of an ideal type, necessarily possessing the essential property or properties that characterize membership in the species. Some individuals may possess qualities that deviate from this ideal form – so, for instance, a dog may be born with three legs instead of four – but for typological thinking, “the *eidōs* (idea) [is] the only thing that is fixed and real, while the observed variability has no more reality than the shadows of an object on a cave wall, as it is stated in Plato’s

⁴ Ben Corson has admirably presented Derrida’s understanding of first (or “mystical”), secondary, and tertiary violence (870-873). Corson’s account is especially useful in helping us see that violence, no less than metaphysics, is inescapable, and in presenting Derrida as opting for deconstructive violence against other more unjust forms (see also Derrida 1978: 147-48).

⁵ So Norris: “For Derrida, the critique of metaphysics cannot be carried on except by means of those various metaphysical concepts and categories that belong to the very history of thought which deconstruction both ‘inhabits’ – necessarily so – and sets out to challenge at just those points where its presuppositions come most visibly under strain” (16).

allegory” (27). On Mayr’s reading, Darwin replaces this typological thinking with population thinking, in which the diversity of biological organisms is the basic fact. For the population thinker, “Individuals, or any kind of organic entities, form populations of which we can determine only the arithmetic mean and statistics of variation. Averages are merely statistical abstractions; only the individuals of which the populations are composed have reality” (28). While Darwin himself did little to explore systematically the metaphysical implications of this shift in perspective, his understanding of speciation through evolution unsettled the foundations of both the Neoplatonic essentialism and nominalist philosophies current in his own day.⁶

Since the publication of *The Origin of Species*, essentialism about biological species “has been almost universally rejected among biologists and philosophers of biology” (Lewens: 461).⁷ The problem comes when we attempt to reconstruct our notion of species essentialism from the theoretical standpoint of population thinking. What the essentialist seeks is some number of characteristics that are possessed by all and only the members of the species she hopes to define – some characteristics that can be used to define the population or set of individual organisms that constitute the species.⁸ If such a characteristic could be found, then the essentialist could have some confidence that she had discovered an essential characteristic marking that species off as metaphysically distinct from all other species. The problem, as Samir Okasha identifies, is that “modern biology offers no grounds whatever for supposing that intra-specific variation is confined to some particular set of ‘accidental’ traits, leaving an invariant shared essence. On the contrary, Darwinism leads us to expect variation with respect to all organismic traits, morphological, physiological, behavioral and genetic” (Okasha: 197). Stated briefly, then, the crux of Darwinian anti-essentialist arguments is that for any intrinsic property of an organism, it is conceivable that some other organism should lack it and nevertheless be classified by biologists as belonging to the same species. This is no less true of characteristically human traits: as Hull remarks, “those who view character covariation as fundamental and want our species to be clearly distinguishable from other species accordingly are forced to resort to embarrassing conceptual contortions to include [the mentally disabled], dyslexics, and the like in our species while keeping bees and computers out” (1986: 4). Even analytic metaphysical attempts to define essence through reflection on the properties a thing

⁶ Hull (1967) very usefully maps out the development of metaphysical thinking on species and variation from Aristotle through Darwin.

⁷ We may add to Lewens’ list some theologians with training in evolutionary biology: Celia Deane-Drummond is characteristic of this trend when she writes that the concept of a “substance” of human nature is “highly problematic in an evolutionary context . . . any rhetoric about a human and divine nature as such makes less sense in an evolutionary world” (98).

⁸ See Hull: “According to the typological species concept, each species is distinguished by one set of essential characteristics. The possession of each essential character is necessary for membership in the species, and the possession of all the essential characters sufficient . . . The key feature of essentialism is the claim that natural kinds have real essences which can be defined by a set of properties which are severally necessary and jointly sufficient for membership” (1994: 313).

possesses in all possible worlds in which it exists falter when applied to biological species, Okasha argues.⁹

The situation becomes even more complicated when we chart the development of this intra-population variation. Over time, environmental pressures coupled with random mutation will lead to a changing distribution of certain genetic and phenotypic attributes within a given reproductive population, resulting in the emergence of new species.¹⁰ If our aim is to define the essences of these species, what are we to make of such trait migrations? Should we consider evolutionary developments like a change in the coloration of a butterfly's wings or the elongation of a mammal's forearm the actualization of a previously unrecognized potentiality in that natural kind? Or, on the other hand, should we consider these changes something that lead to the new instantiation of a different essence? There does not seem to be any principled way to make these metaphysical judgments, yet we know that the emergence of wildly different phenotypes can proceed from a series of such minor alterations.

The vast majority of evolutionary biologists and philosophers of science have thus concluded alongside Elliott Sober that "Essentialism about species is today a dead issue" (353). Yet we should be careful not to overstate what has been proved. Sober continues that species essentialism has been largely rejected "not because there is no conceivable way to defend it, but because the way it was defended by biologists has been thoroughly discredited" (353). While defining essences by pointing to biological qualities necessarily held by all members of a species may be a fruitless endeavor, this should not be taken as the demise of all metaphysical essentialisms. In the course of our ordinary lives, we regularly make judgments about whether some creature we encounter in the world belongs to one kind or another, and interact differently with these creatures on the basis of these judgments ("Is this a golden retriever, or a wolf?"). As Okasha observes, "for many groups of organisms, the use of a variety of diagnostic criteria, usually based on the organisms' gross morphology, allows them to be assigned to distinct species relatively unambiguously" (196). While these common practices of judgment and patterns of life cannot supply the fine-grained criteria that scientific classification requires, they do support our common linguistic practice of distinguishing among natural kinds.

What is more, this linguistic practice may be related to other linguistic practices within our larger form of life – for example, the theological tradition's habit of speaking of God ordering the world according to natural kinds. Yet it is important to note the non-necessity of both of these linguistic practices, by the lights of modern biology: if there are no clear phenotypic or genotypic features marking off biological essences, we cannot take empirical observation to require essentialism. Yet we should also recall that essence or nature, understood as metaphysical categories, need not map neatly onto empirical qualities: we need

⁹ Okasha has in mind particularly Kripke and Putnam (see 198). Okasha (203ff.) does offer a reconstructed version of modal definition of species essences based on relational properties, but as this account depends on contingent facts about breeding populations rather than about the intrinsic qualities of individual organisms, it better fits a conventionalist account of species than a metaphysics of natural kinds rooted in the creative will of God.

¹⁰ Genotype refers to an organism's genetic characteristics, while phenotype refers to the observable characteristics produced by the interaction of the organism's genotype and its environment.

not (and, I think, should not) believe that only the empirical is the “real.” While the collapse of biological species essentialism should certainly be considered a challenge to metaphysical essentialisms, then, it should not be thought to foreclose their possibility altogether.

To summarize this presentation of the “evolutionary challenge”: while there is nothing that strictly precludes the theologian from holding that there is some essence of human nature, she must affirm it in the absence of any consistent biological markers that might be used to define it precisely.

A Challenge from Transhumanism

The fourth challenge I will address is posed by an intellectual outlook on ethical questions of human enhancement, the so-called “transhumanist” movement.¹¹ Transhumanism poses a challenge of a different sort than the three preceding ones: while the positions I have discussed above each argue for the incoherence of some understanding of essentialism, this final challenge argues that even if there *is* some metaphysical fact of the matter about what it is to be human, we should employ all the technologies at our disposal to exceed the limits of our nature – literally, to cross the boundary marking off the merely human from that which lies beyond. In one influential early definition of transhumanism, Max More describes transhumanism as

a class of philosophies that seek to guide us towards a *posthuman* condition . . . Transhumanism differs from humanism in recognizing and anticipating the radical alterations in the nature and possibilities of our lives resulting from various sciences and technologies such as neuroscience and neuropharmacology, life extension, nanotechnology, artificial ultraintelligence, and space habitation, combined with a rational philosophy and value system (1996).¹²

“Posthumans” are those “possible future beings whose basic capacities so radically exceed those of present humans as to be no longer unambiguously human by our current standards,” a category potentially inclusive of wholly artificial intelligences or biological descendants of human beings that have undergone substantial genetic or technological modification (Bostrom et al.). The aim of the transhumanist movement, then, is to midwife the posthuman; transhumans (what transhumanists aspire to be, not what they claim to be now) are that form of life that constitutes a transitional stage between the human and the posthuman.

¹¹ Bostrom identifies biologist Julian Huxley’s 1927 *Religion without Revelation* as the first use of the term “transhumanism” (2005: 6). While Bostrom’s essay provides a useful insider’s view of the development of transhumanist scholarship, Pilsch offers the fullest description of transhumanism’s intellectual and historical context and development.

¹² This essay is a heavily revised version of his 1990 essay. The transhumanist movement and More himself frequently attribute the relatively restrained definition of transhumanism as “a class of philosophies of life that seek the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations by means of science and technology, guided by life-promoting principles and values” to these early articles, but this passage is nowhere to be found in either version; its earliest appearance in this form seems to be in 2013: 3.

As a challenge to anthropological essentialism, transhumanism does not necessarily seek to demonstrate the incoherence of the idea of human nature, as the three preceding approaches have done. But it is a functional challenge to anthropological essentialism, for transhumanists argue that even if there *is* some human nature shared or exemplified by all human persons, we should seek to move beyond it.¹³ Human nature should not be taken as a normative constraint on moral action, and particularly on modifications to human life.

The experience of reading contemporary transhumanist literature is often a surreal one. This is no less true of academic transhumanist theory than it is of the breathless hypothesizing about the “Singularity” one might find in an airport bookshop. Alongside discussions of pharmaceutical enhancement of strength and speed among athletes or of antidepressants among the general population, philosophers Nick Bostrom and Rebecca Roache, of Oxford University and the University of London, respectively, canvas the possibility and desirability of an average human lifespan of a thousand years, of dramatic advances in memory and cognitive capacity, embryonic selection of children with desirable attributes in service of a project of social eugenics, and direct genetic engineering. These are, as a survey of the transhumanist literature quickly reveals, among the more restrained prognostications current in that intellectual community: more *outré* possibilities include precise replication of human brain patterns through computer algorithms, purporting to scan one’s consciousness and memory into an artificial intelligence that might continue on orders of magnitude longer than a human lifespan; expansion throughout the observable cosmos; and probes capable of organizing and networking together interstellar matter into one cosmic computing network. Bostrom, arguably the leading academic representative of transhumanism, has recently gone so far as to calculate the quantity of harnessable atoms within the universe that human civilization might conceivably reach before cosmic expansion sets it outside our future-light cone, giving us a handy estimate of the maximum possible computing power of such an interstellar networked system (2014: 122-23).

My aim in raising these possibilities is not to dismiss transhumanist speculation as untethered fantasy, though this may be a tall order when confronted with the earnest hope of many transhumanists that, within their lifetimes, technology will be invented enabling them to upload their consciousness to a computer and live indefinitely in artificial form. Francis Fukuyama notes this temptation to dismiss many transhumanist aspirations as “nothing more than science fiction taken too seriously” (42), yet cautions against this. A recent survey of experts in artificial intelligence found a belief “that AI systems will probably (over 50%) reach overall human ability by 2040-50, and very likely (with 90% probability) by 2075. From

¹³ One might hold that there *is* a human nature, but that it is inherently developmental, perhaps as a result of Whiteheadian or other process-philosophical commitments. I would consider such a philosopher or theologian an ally in the defense of essentialism, and I suspect she would be well positioned to respond to the other three challenges, with the Anglo-American challenge perhaps posing the greatest (though likely not insuperable) difficulty for classical Whiteheadianism. The transhumanist challenge might still present an obstacle for the Whiteheadian essentialist, however: unless all possible future developments (for instance, mental uploading to the cloud) are within the range of potentiality of human nature, there might still arise a situation in which the transhumanist believes it necessary to exceed the bounds of human nature; and if all possible future developments *are* human potentialities, it is difficult to see what positing such a nature might contribute to our understanding of what it is to be a human person.

reaching human ability, it will move on to superintelligence in 2 years (10%) to 30 years (75%) thereafter” (Müller and Bostrom: 568). Even if we hold that there is an exceedingly low probability that transhumanism’s more apocalyptic predictions will be realized within our lifetimes, this should not obscure from view an important point: it is very likely that some of those presently alive will or do already possess the technological means to alter the conditions of human life in modest but quite significant ways.

Widespread use of genetic testing by companies such as 23andMe is in the process of building a massive privately-owned data set that has already significantly assisted researchers in understanding the function of genes and environmental conditions in producing disease. Preimplantation genetic screening has enabled parents to use in-vitro fertilization to avoid implanting an embryo carrying genetic markers for diseases like Downs Syndrome, Tay-Sachs, and Huntington’s Disease, yet a recent survey of the 493 assisted reproductive technology clinics in the United States indicates that 72.7% of them also offer sex selection for non-medical purposes as a service to clients (Capelouto et al.). The availability of massive genomic data sets has already produced a computer model capable of predicting height accurate to three or four centimeters based on chromosomal analysis of embryos (Regalado). In 2013, the U.S. government issued a patent to 23andMe for a service to screen the sperm and eggs of potential donors, allowing a customer to select gametes that will produce a high probability of resulting in “phenotype[s] of interest” in their children (see Fox).

The recent development of the CRISPR-Cas9 mechanism into a gene editing tool has already been hailed as a “new frontier of genome engineering” (Doudna and Charpentier), enabling not only precision genetic modifications, but the ability to perform experiments that are leading to a much more textured understanding of how genetic factors contribute to biological development and function more generally. In 2015, researchers at Sun-Yat Sen University in China published the first results of CRISPR-Cas9 editing of a human embryo (Liang et al. 2015), leading to calls for a moratorium on human embryo germline editing by experts in the field and a declaration from the International Summit on Human Gene Editing, a joint meeting of the U.S. National Academy of Sciences, the UK Royal Society, and the Chinese Academy of Sciences (Lanphier et al. 2015; Reardon). Nevertheless, in 2017, two more studies showing successful genetic editing of human embryos were published by teams in the United States and China (Liang et al. 2017; Ma et al. 2017; on criticisms, see Egli et al.; Ma et al. 2018). These developments, alongside advances in medical implants, biosynthetics, and nanotechnology suggest we are entering a new era of human genetic modification, in which we possess the potential to select for desirable traits and correct undesirable ones (Kourany: 984-85).

Each of these technologies suggests a burgeoning capacity for human self-making and putative self-mastery that has been available to no previous generation. Yet, as McKenny (190-92) notes, the principles of autonomy, safety, and fairness that guide contemporary bioethics have a great deal to say about how human enhancement may be justly executed, but little to say about whether or not these alterations are desirable in themselves. Much of our practical reasoning, particularly at the level of public policy, concerns our responsibilities to avoid or prevent suffering, and to work for the just distribution of scarce resources. The transhumanist movement is frequently (and justly) faulted for a technocratic sensibility that would exacerbate already-existing social disparities, as those who are already wealthy gain access to supposed

enhancements unavailable to the poor (see, e.g., DeBaets). Imagine, for instance, a society in which the poor have an average lifespan similar to our own, while the rich live for a thousand years; or, less fantastically, a society in which genetically-modified children of the rich are competing for schooling, employment, and social capital with the unenhanced poor. But now imagine that such technologies of human enhancement are preceded by a widescale social project that succeeds in bringing about a dramatically more just social order than presently obtains; are there still reasons to refrain from pursuing and utilizing techniques of human enhancement, particularly if it will prevent a great deal of suffering, decay, and death?

Those that transhumanists call “bioconservatives” will answer no – we still should not employ these technologies of human enhancement, even in a largely just society. They will generally appeal to some feature of human nature as support for this negative response (see Kass). In response, the transhumanist will frequently appeal to what I have called a “challenge from evolutionary biology”: if there is no genotypic or phenotypic feature that is an unambiguous marker of human nature, then it seems that what it is to be human is to be part of a developmental history with no clear starting-point or endpoint. The use of tools by hominid ancestors already seems to have played an important role in the evolutionary development of the human form (Fuentes); it therefore seems arbitrary to insist that use of technologies like gene editing would move us outside the bounds proper to our nature. But even if there *is* a human nature such that use of some technology might move us beyond it, transhumanism poses the question, why should we not move beyond our nature? What is the value in being human, particularly if being posthuman might obviate many of the hardships characteristic of human life, while expanding upon many of the things we identify as the goods of our present condition (see Buchanan)? Theological responses to the question of transhumanism have been predictably varied, with some theologians wholeheartedly embracing a posthuman future as a natural extension of Christian eschatological hope, and others viewing these purported enhancements as fundamentally compromising our ability to pursue the goods inherent in human nature.¹⁴

This challenge to anthropological essentialism from the transhumanist movement thus further specifies our task, even as it makes it more pressing. We require not only some account of how we might define human nature, but also an account of the intrinsic goods of our nature such that remaining within its bounds is worthwhile. Collectively, these four challenges present a forceful argument against normative appeals to human nature within moral reflection. Response to only one or two of them is insufficient, as each threatens to destabilize any understanding of human nature that might offer normative guidance on questions of biotechnological enhancement.

Dispensing with Nature?

So why not simply dispense with the language of essence and nature? One certainly may, and many Christian thinkers have. Yet there are, in my estimation, good arguments in favor of maintaining a broadly essentialist theological posture. One such argument is rooted in the

¹⁴ McKenny (2018) offers a useful taxonomy of the range of answers to the question of the normative status of human nature, grouping together positions that take human nature as given, human nature as ground of human goods and rights, human nature as susceptible to intervention, and human nature as condition for imaging God.

language of the seven ecumenical councils, held to be authoritative statements of orthodox belief by Catholic, Eastern Orthodox, and many Protestant Christians.

As already noted, the Council of Chalcedon is arguably the most important reference-point within the early Church for understanding the relation of divinity and humanity in Christ. He is “acknowledged in two natures (ἐκ δύο φύσεων),” noting that “the character proper to each of the two natures was preserved (σωζομένης δὲ μᾶλλον τῆς ιδιότητος ἑκατέρας φύσεως) as they came together in one Person and one hypostasis” (Denzinger: 302). The central metaphysical category here is φύσις, “nature,” but as the Chalcedonian definition’s language of the “proper character” of each nature makes clear, this term is being used in a manner that falls well within the bounds of what I have called “essentialism,” being used to mark off what is proper to God’s manner of existing and what is proper to a human manner of existing. What is more, the conciliar statement further specifies what these proper characteristics of human nature might be: Christ is said to be “truly God and truly man composed of rational soul and body (ἐκ ψυχῆς λογικῆς καὶ σώματος)” (Denzinger: 301). What it is to be human, then, according to the language of this council, is at least to be composed of a rational soul and a body. The later Sixth Ecumenical Council (Third Constantinople, 681) provides an even more fine-grained description of what is proper to human nature, noting that Christ possesses “two natural volitions or wills and two natural actions (δύο φυσικὰς θελήσεις ἦτοι θελήματα αὐτῶ, καὶ δύο φυσικὰς ἐνεργείας),” a divine and a human one (Denzinger: 556). According to the christological statements of these councils, being a human at least means that one has a body, a rational soul, a will, and an activity proper to its nature.

These categories – substance, nature, proper character, body, rational (and by extension, non-rational) soul, will, activity – form a part of what we might call (following Richard Rorty) the “final vocabulary” of the conciliar christological tradition. Rorty writes, “All human beings carry about a set of words which they employ to justify their actions, their beliefs, and their lives . . . I shall call these words a person’s ‘final vocabulary.’ It is ‘final’ in the sense that if a doubt is cast on the worth of these words, their user has no noncircular argumentative recourse. Those words are as far as he can go with language; beyond them there is only helpless passivity or a resort to force” (73). There is, for the councils, no going back “behind” these categories: they are the basic building blocks of conciliar christology. One might certainly try to translate the statements of the councils into another theological idiom that does not take these categories as basic; indeed, many would judge this a perfectly orthodox thing to do. At that point, however, one would be engaging in a distinct linguistic practice, marked off by its use of a different final vocabulary.

In my theological judgment, the authority of the ecumenical councils should be understood as establishing the categories of, *inter alia*, substance, nature, proper character, body, rational (and by extension, non-rational) soul, will, and activity as necessary constituents of the final vocabulary of orthodox christological speech. If a theological approach rejects these categories as conceptually basic, that theological approach is, *ipso facto*, heterodox.¹⁵ My

¹⁵ While I intend this statement to be a basically Wittgensteinian claim about the grammar of conciliar orthodoxy, it of course raises again the question of totalization encountered in our Continental challenge. While space does not permit a developed response to this challenge, I believe a successful response should emphasize the eternal forms of creation as subsisting in the incomprehensible life of God. True knowledge of these natures requires

theological judgment may be mistaken on this matter, and I do not intend to imply that (what I judge to be) heterodoxy on this point places one beyond the bounds of faithful Christian speech; after all, the only perfect orthodoxy is the beatific confession of the saints. I do, however, intend with this judgment to place an outer bound on what we should consider a reform of conciliar orthodoxy, rather than a departure from it. One might reinterpret, even quite radically just what one understands a substance or nature to be without falling outside these bounds, but one must understand Christ to be one person in two natures, his humanity composed of body and rational soul, in possession of a human natural volition, will, and natural action.

Beyond just this theological judgment, however, there are claims of the classical christological tradition that would seem to resist restatement in any theological practice that did not employ the category of human nature as part of its final vocabulary. Take, for instance, Leontius of Jerusalem's (sixth century) description of Christ's human nature as subsisting not of itself, but only in the hypostasis of the Word (Gockel: 525). That is to say, the human nature of Christ possesses no independent existence of itself; it only subsists as a particular *hypostasis* inasmuch as it is the humanity of the *hypostasis* of the Word. Christ's humanity is thus said, according to a tradition beginning in the Eastern Church and stretching into both Roman Catholic and Protestant communions, that the humanity of Christ is *anhypostatic*, possessing no independent existence of itself, and *enhyposstatic*, possessing independent existence only as it is hypostatized by the Second Person of the Trinity (see, e.g., Aquinas: III.2.2). The point of this theological tradition is to head off any implication that the humanity of Jesus exists even potentially apart from the Word: in the Incarnation, it is human nature *itself* that is assumed by the Word, rather than an already-existing human person or even a humanity joined to God but possessing its own proper subsistence. On a reductive materialist account of the human person, for instance, what should we say is assumed? Does the Word assume the preexistent flesh that will come to compose Christ's human body, in which case the Word has assumed into union with itself proper parts of Mary's human body? Or does the Word assume the material existence of Jesus's own body from the first moment of its existence, in which case his humanity clearly possesses its own proper existence, contravening the claims of classical christology? If there is no human nature to be assumed by the Word, it is at best difficult to see how this fundamental christological affirmation might be maintained.

Reclaiming Human Nature

If we should not dispense with the language of nature, then, we require an account of it that is informed by and capable of answering the many contemporary challenges to essentialism. By clearly rendering four of the most significant ones, I hope to have given us a set of philosophical and moral *desiderata* of any contemporary understanding of the essence of humanity. In this final section, I offer – in admittedly schematic form – an account that responds to these challenges.

I take my bearings from a comment of Iris Murdoch's, that her theoretical approach might best be described as a "Wittgensteinian Neo-platonism" (Dooley: 92). In an essay interpreting

encounter with the God whose nature inherently exceeds any totality; thus, these natures invite their own deconstruction.

this remark, Nora Hämmäläinen has described Murdoch's metaphysics as "a multifaceted, mobile, pictorial activity – firmly grounded in widely shared, ordinary human experiences – aiming both at a realistic description of the human world and the articulation of a worthy moral ideal" (223). The argumentative form of Murdoch's *The Sovereignty of Good* draws into focus precisely what Hämmäläinen means. As a good Wittgensteinian, Murdoch bases her argument for the necessity of the Idea of the Good on thoroughly unexceptional, everyday moral judgments.¹⁶ As Murdoch notes, the practice of judging one course of action to be better than another presupposes some standard of measure, a scale of goodness according to which such judgments might be rendered. Murdoch pushes the argument one step further: our moral lives consist not only in a series of such judgments, but in the attempt to improve our ability to make such judgments, the aspiration to moral improvement. The practice of judging that we have improved morally, or of judging one person to be morally better than another, similarly requires a standard of judgment; but here the standard is represented as being external to the moral life of any individual person, transcending each person's individual will. As Murdoch observes, the idea of the Good "lies always beyond, and it is from this beyond that it exercises its authority" (61). Judgments of moral progress require, on her account, the idea of perfection, the moral ideal that is the goal of our growth in virtue. Yet Murdoch is careful to note that this moral framework does not commit her to the existence of some entity that is the form of the Good, any more than it commits her to a belief in God. Murdoch's description of the form of the Good is best understood, then, as an attempt to specify the grammar of the concept of goodness within our linguistic practices of moral judgment.

How might this account assist us in responding to the four challenges to essentialism that I have outlined above? In the first place, I follow Murdoch in adopting a basically Wittgensteinian understanding of the relation between language-use and concepts. Descriptively, the concept of human nature is inseparable from our practices of identifying and relating to other human persons. Our notion of what it is to be human is shaped through concrete actions, both everyday and exceptional: learning how to tie one's shoes from one's parents; conversing with one another over a meal; giving one's surname to one's child; sitting by the bedside of one's profoundly mentally disabled relative; refusing coercive medical experimentation on human subjects; and, in the insightful example offered by Cora Diamond (319-34), refusing to consume human bodies. These practices, and the shared form of life of which they are a part, provide the linguistic context for our use and definition of what it is to be human, and it is the "family resemblance" between these practices that gives us the sense of the concept "human nature." This Wittgensteinian outlook offers a philosophical account of how the concept "human nature" becomes meaningful within our form of life, but it is important to note that these are not the only linguistic practices within which we employ the concept of the human. While Murdoch does not seek to ground her account of the form of the Good in the existence of God, Christian theology surely does hold that God exists. Similarly, we should believe that there is such a thing as a nature (*φύσις*) of humanity that includes as essential features a body and a rational soul capable of volition because this is

¹⁶ Wittgenstein had previously connected standards of judgment to Plato's forms (see the comments recounted by Bluck and Geach in Bluck: 115).

entailed by the linguistic practice of the authoritative councils of the Church. There must be a human nature, according to Christian linguistic practice, for the Word has assumed it.

The upshot of this account is that we need not be overly concerned with an inability to define the precise metaphysical, phenotypic, or genotypic qualities that mark off what is human as distinct from all that is not. While there may be specific contexts within which we desire a more precise functional definition of the human, we ought not think that there is anything metaphysically deep about the definitions produced to serve some particular set of aims. Indeed, some of the most intractable problems of medical ethics, for instance the moral legitimacy of research using embryonic stem cells, are plausibly derived from the relative lack of practices related to such cells that exhibit a family resemblance to the practices characteristic of our other interactions with human persons. Yet this lack of clear observable qualities demarcating the human from the non-human does not prevent us from affirming that there is a nature of humanity on theological grounds. On the theological account I propose, what it is to have a particular sort of nature is to participate in a particular manner in the life of God. There is something within the divine life that serves as the archetype for each creature, and each creature exists through participation in the divine life according to that form. Each creature exemplifies its nature in its concrete existence through the particular manner in which it participates in God, and all creatures consubstantial with one another bear in common this particular likeness to God.

We should be cautious at this point: the theological claim that each natural kind bears a distinctive likeness to God should not lead us to overestimate our capacity to discern this likeness in the world around us, picking out the differences between natural kinds with confidence. While we possess both family-resemblance concepts of natural kinds with varying degrees of specificity and technical classifications in complicated relation to one another, we should be wary of assuming that any of these directly track the various forms by which creatures participate in God. This is particularly true in view of sin's darkening of the intellect: in losing the vision of God, our ability to discern the manner in which each creature and each kind of creature serves as a likeness of God has been compromised. My claim is not that observation of human life has nothing to teach moral theology; but rather that both our descriptions of human lives and our judgments about what is good for human lives are inseparable from our cultural and linguistic practices – and these vary quite widely. If poststructural critiques of essentialist metaphysics and discourses of the “natural” have taught us anything, it is that we should not be too quick to identify the forms of life, desires, and ends that are proper to human persons, and by extension to any created kind. Absent assent to the claim that some particular linguistic community is a privileged conduit of revelation about the fine-grained details of the desires and behaviors proper to specific kinds of being, I believe we should be wary about attempts to read the proper qualities of creatures off the face of nature.

To this point, then, the account I have proposed joins together a theological confidence in the existence of created natures as modes of participation in the life of God with a deep skepticism about attempts to define on the basis of observation what is proper to natural kinds or what marks one natural kind off from another. While I believe this approach has the resources to respond effectively to the anti-essentialist challenges posed from the perspectives of Anglo-American philosophy, Continental philosophy, and evolutionary theory, it offers little guidance on how to respond to questions about the appropriateness of human

enhancement. On the one hand, the skepticism I have counseled about identifying the proper bounds of created natures makes it difficult to state with confidence that a purportedly transhuman enhancement would actually exceed the limits of human nature. On the other hand, our ordinary language understandings of what is human are too plastic to foreclose the possibilities of human enhancement. Just as the distribution of characteristic qualities in a biological population migrates over the course of evolutionary history, so also our understandings of what distinguishes the human from the non-human might change gradually, to the point where a given community of language speakers could through a consistent evolution of linguistic practice change in its description of what is characteristically human to an understanding of what is human that would be unrecognizable to us today.

What is needed, on the analogy of Murdoch's argument in *The Sovereignty of Good*, is a standard that can norm our attributions of humanity and thus regulate our ordinary linguistic practice, and I believe just such a standard may be found in the human life of Christ. Crucially for the sake of comparison to Murdoch, scripture and the theological tradition describe the human form of Christ's life not only as perfect humanity, but as the aim or endpoint of the Christian life. Life in the Church is ordered to the end of finding one's own form of life sheltered in Christ's own. Our humanity is restored and perfected as it is incorporated within Christ's humanity, as we become collectively members of Christ. On the terms of the account I have offered here, it is in the life of Christ that we find the meeting-point of the ideal form of the human that subsists in God, and the linguistic practices of our ordinary life. Just as the form of humanity subsists eternally in God, so also the concrete subsistence of Christ's human nature exists only in union with the eternal Word that has assumed it. Yet this is not an abstract form of the human: it is a concrete human life that joins in with the practices of daily life that establish and define our concept of what it is to be human. More importantly, in the life of the Church, Christ establishes a linguistic community through which we may continually meet Christ's concrete humanity and participate ever more fully in the form of his life. We become members of Christ's body just as we encounter Christ in the sacraments and the community of the Church, meeting him under the aspect of bread and wine, receiving him into our bodies, welcoming him in our neighbors and enemies, and displaying him to the world in our own lives. All these activities draw us into a form of life that establish and regulate our understandings of what it is to be human on the pattern of Christ's humanity. More than that, they heal us of the effects of sin and draw us closer to the ideal of Christ's own perfect humanity, for as Irenaeus famously noted in describing the deifying effects of union with Christ, the glory of God is the human person fully alive (*Adversus Haereses* 4.20.7, author's translation).

In assessing potential human enhancements, then, the question we should ask is: does this modification enable or inhibit our participation in the form of Christ's life? Assessing any particular purported enhancement will, of course, require a textured account of life according to the pattern of Christ's humanity, but I believe this provides more guidance than it may initially appear. Any truly human form of life patterned on Christ's own will require an existence capable of being washed in the waters of baptism, nourished on the Body and Blood of Christ, anointed in times of sickness. It will be a humanity that joins Christ in the tomb so it may join him also in his resurrection, and it will be a humanity that, quite importantly, relinquishes the attempt at self-mastery and the avoidance of suffering in favor of accepting

God's will for the course of one's life. Perhaps more prosaically, it requires an understanding of humanity normed by family resemblance to events like Christ's sharing of meals with his apostles, conversing with them at speeds generally in accord with what we are accustomed to of human persons today, growing tired and falling under the weight of a heavy burden, and being washed with another's tears. From the theological standpoint I propose, these and similar practices constitute our understandings of what it is to be human. Whatever might sunder our ability to commune with the concrete humanity of Christ and its christoform extension in the concrete practices of ecclesial life is to be avoided. This likely does not, in principle, rule out any modifications to human life (as, indeed, distributions of some genetic qualities have already changed since Christ's birth); yet it does likely rule out many of what would be better described as enhancements than therapies, especially the more dramatic enhancements of human life desired by transhumanists. If we would be perfect, our rule must be the fragile body encountered on the cross.

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