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PAUL BLOOMFIELD

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DAVID COPP

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CHAPTER 13

FUNCTION, FITNESS, FLOURISHING

PAUL BLOOMFIELD

We are moral apes . . .

— Kim Sterelny and Ben Fraser

THE relationship of morality to biology has long been fraught, reaching a nadir in 1903, when G. E. Moore skewered Herbert Spencer's (1879–1893) “evolutionistic ethics” with the naturalistic fallacy for equating what is “better” with what is “more evolved”. Regardless of the merits of either Moore's open question argument or Spencer's Lamarkian utilitarianism, since *Principia Ethica*, most defenders of naturalistic moral realism have steered clear of trying to show direct links between biology and evolutionary theory, on the one hand, and morality on the other. There are notable exceptions to the rule, two being Richard Boyd's (1988) discussion of “homeostatic cluster properties” and Kim Sterelny and Ben Fraser's (2016) argument that moral facts can be understood, at least in part, in terms of evolved facts about social cooperation. As welcome as these discussions are, there are arguably deeper connections to be explored between evolutionary theory and a descendent of the ancient Greek concept of *eudaimonia*. Both Plato (1993, 352d–354c) and Aristotle (2000, 1097b21–1098a20) rested their understanding of virtue (*aretê*), including moral virtue, on an excellence (*aretê*) in functioning (*ergon*) by relying on biological analogies. Of course, our understanding of biological function has evolved (as it were) over the millennia, but this ancient insight can inform a contemporary theory of naturalistic moral realism in which *eudaimonia*, or the flourishing or happiness of a person, can be comprehended by terms derived from evolutionary theory while also grounding normative moral theory.

There are two basic moves to set up the position. The first claims that all genuine normativity found within human life can be grounded in human biology and psychology through the biological distinction between proper function and dysfunction

or malfunction. “A function” is the nominalization of the verb “to function” which is a success term, as “it functions” entails “it is not malfunctioning”. Degrees of functioning are required to express how qualitatively well an item is functioning, as functioning can be excellent or merely adequate, while dysfunction can be more or less severe, and malfunction implies failure. The fundamental claim is that when a trait or organ is functioning, it is doing what it ought to do, and when it is malfunctioning it is failing to do what it ought to do, or failing to do what it is there to do.¹

Examples are:

1. A heart in myocardial infarction is not doing what hearts ought to do.
2. When belief-forming mechanisms of people form beliefs based on desires and wishes instead of evidence, people are not believing what they ought to believe.
3. When people say “right” when they mean “left”, they are not speaking as they ought to speak.
4. When parents abuse or neglect their children, they are not behaving the way parents ought to behave.

Only one kind of normativity is required to explain these varied phenomena. Despite ontological protest from non-naturalistic moral realists and moral non-realists (including error theorists), the distinction between (1) a healthy heartbeat and a heart attack—which is as real as the difference between life and death—is sufficient to explain (4) the “ought” of morality (or the “ought” of human action), just as it is sufficient for (2) epistemology (the “ought” of human belief-formation) and (3) semantics (the “ought” of human communication).

Naturalism assumes that nature is sufficient to explain all the facts of biological life, including human life. Moral normativity, epistemic normativity, and semantic normativity can all be naturalized by grounding them in the distinction between proper functioning and malfunctioning, though here our focus will be moral normativity.

The second basic move also starts within biology and evolutionary theory. It involves the relationship of *function* to *fitness*, and yields a definition of “eudaimonia” in terms derived from “fitness”. Eudaimonia is “species relative” such that each biological species will have its own form of eudaimonia based on shared characteristics of the conspecifics. The view is fairly though not completely neutral about which theory of biological function is correct, but it is not so ecumenical about theories of fitness: the view requires the “propensity theory” of fitness, as developed by Susan Mills and John Beatty (1979). Happily, this is the leading, extant theory of fitness.

The structure of what is to come is based on these two moves. §1 contains some background assumptions of the view. In §2, the concepts of *biological function* and *individual fitness* are introduced, and their relations described. In §3, “eudaimonia” is

¹ Judith Jarvis Thomson (2003) develops a theory of normativity that is in many ways similar to the present one, but in her discussion of *function*, she does not distinguish natural or biological functions from the functions of artifacts.

defined by way of “individual fitness” and this is followed by a discussion of the cardinal moral virtues, as these traits have been historically seen as, in some sense, required for eudaimonia. Finally, in §4, some prominent objections are addressed.

1. SYSTEMS, REDUCTION, TELEOLOGY, AND CONTINUITY

We begin with the question of whether or not naturalism requires reduction, as many assume that non-reduction entails non-naturalism. Biological systems are physical systems, and as such are bound by the laws of physics and in particular, the laws of thermodynamics. There is some debate about whether the second law of thermodynamics, involving the ineluctable increase of entropy over time, can be reduced to statistical mechanics. A stock philosophical example of “successful intertheoretic reduction” is that heat reduces to mean kinetic energy, but this reduction is in fact problematic because the second law of thermodynamics is asymmetric while all the laws of statistical mechanics are symmetric (Sklar 1993). There is at least some reason to think that neither heat nor physical systems in general reduce to the movements of particles alone, and this is true for biological systems as well. All systems, including biological ones, resist reduction. Even Moore (1903), our modern progenitor of moral non-naturalism, acknowledged that organic wholes are more than the sum of their parts, so they are naturalistic yet non-reductionistic. While reductions of life to chemistry and physics have been attempted (Schrödinger 1944), life resists being reduced to the movements of particles (Benardete, 1976); life is self-organizing (Kauffman, 1993).

None of this is meant to imply that the version of naturalistic moral realism defended below requires either reduction or non-reduction; it is neutral on this score. Either thermodynamics reduces to statistical mechanics or it does not, either biology reduces to physics and chemistry or it does not, either mental states reduce to brain states or they do not.² If we follow W. V. O. Quine (1953, 1960, 1963) and understand by “naturalism” roughly that there is a continuity among theories of empirical nature, then there is no reason to think that naturalism, by itself, requires reduction: for example, non-reductive materialism (Baker 2009), including some functionalist theories of mind, is an up-and-running research program in the philosophy of mind without contravening the principles of naturalism, whatever they may turn out to be. Naturalistic emergentism is a metaphysical possibility that does not entail non-naturalism, so reduction is neither required by it nor is reduction disallowed. Therefore, naturalistic moral realism can reject non-naturalism while maintaining neutrality between reduction and non-reduction.

² There are many precedents of using this kind of *tu quo que* arguments to defend moral realism. For discussion, see Lillehammer 2007 and Cowie and Rowland 2019.

Applying this general skepticism about reduction to evolutionary theory, a further assumption is that natural selection involves more than what is required for replicating genes, and as such Richard Dawkins's (1976) "selfish gene" theory of evolution is at best incomplete. In particular, there are more "units of selection" than merely the gene, so for example, selection can occur at the level of groups (Sober and Wilson 1998; Okasha 2006; Lloyd 2020). Something like "multilevel selection theory" is being assumed.

Another sticking point for reduction has been the ancient concept of *teleology*, the infamous early modern bugbear of biology and moral naturalism, when theories of "mechanics" seemed to rule it out. It is still common to think that evolutionary theory was final nail in the coffin of teleology. Nevertheless, teleology stubbornly remains in one form or another as long as the concept of *purpose* or *goal-directedness* is analytically built-into the concept of *biological function*, as it seems to be (Wimsatt 1972, more on this below). Indeed, recent developments in evolutionary theory make some form of teleology scientifically and philosophically respectable (Walsh 2008, 2012). In the past twenty years, there has been a refocusing of attention within evolutionary theory around the importance of the individual organism and ontogenesis as these affect our understanding of evolutionary processes as a whole. This subfield has come to be known as "evo-devo" (Müller 2007; Laubichler 2009). Again, the view of moral realism defended below can take its lead from other naturalized disciplines: if biology can do without teleology, then so can naturalistic moral realism, but if biology requires it, then it is not a metaethical problem.

The final assumption does not concern reduction but rather a form of non-exceptionalism about human beings. The most prominent form of moral realism closest to the position developed below is that of Philippa Foot (2001), Rosalind Hursthouse (1999), and Michael Thompson (1995, 2008), all of whom accept a form of "neo-Aristotelianism" in which "goodness" is understood in terms of an organism's flourishing and "badness" is understood in terms of "defect". G. E. M. Anscombe (1957) inspired Thompson, who argues that "Aristotelian categoricals" determine the conditions for flourishing. These are "natural-historical" judgments about how creatures of a kind live. So, for example, the lioness that fails to teach her cubs how to hunt is defective in this regard. But, on this view, the biological sciences drop out of the picture; the theoretical turn is Wittgensteinian (Mac Cumhaill and Wiseman, 2022). These philosophers do not speak of "species", understood empirically, but rather of "life-forms", and they see the flourishing of human beings as discontinuous with the flourishing of every other life-form. While the flourishing of plants and non-human animals can be comprehended by empirical science, humans are supposed to be exceptional by virtue of our practical rationality. Crucially, as human beings, we can question our "natural desires" in a manner that seems to set us apart from other animals (Lawrence 2011). For example, Foot (2001, 42) correctly points to the undeniable truth that human beings can flourish despite choosing to not reproduce (a claim to which we return below), and this kind of fact has led these philosophers to conclude that we cannot understand human flourishing on evolutionary principles, where only survival

and reproduction reign. Because of this, they conclude there is a discontinuity between *Homo sapiens* and everything else alive.

Unsurprisingly, this rejection of biological science has brought strong criticism.³ Contra Wittgensteinianism: the assumption henceforth is that, as different as humans may be from other species, there is nothing about us which requires thinking of ourselves as anything other than a species of animal, subject to the same natural laws and/or ethological principles that apply to other animals (Midgley, 1978). A helpful comparison is to the debate over the differences between animal communication and human language (Hurley and Nudds 2006; Lurz 2009; Bar-On 2013). Here, roughly, the empiricists argue for a continuity between non-human and human communication and the rationalists argue for discontinuity. The difference, however, is that, unlike Foot and her followers, the rationalists in this debate are not trying to take human communication out of the realm of science or claim that biology does not have the capacity to account for human language. The difference between non-human and human communication might be as great as the difference between flightless reptiles and birds, but no one suggests that this shows either avian flight or recursive grammar to be exceptions to empirical science, as Foot et al. claim about human flourishing. Evolution proceeds by way of punctuated equilibria (Eldredge and Gould 1972), and so whatever great leap humans beings represent past chimpanzees, it is nevertheless no more than punctuation. However wonderful and special human beings might be, a guiding assumption here is that we are nothing more than *Homo sapiens*, a species of mammal, phylogenetically continuous with other apes, period. The view assumes that nothing supernatural or non-natural is needed to explain human life.

Metaphysically, naturalism leaves aside theological posits of immaterial souls and entails a rejection of substance dualism in the philosophy of mind. It is inconsistent with libertarian free will and miracles if these imply breaking the laws of nature. Kantian noumenal rationality is out of the picture and Hegelian absolute idealism has no more place than backward causation. This form of naturalism is consistent with the existence of abstract objects or “universals” such as sets, numbers, properties, and propositions. The scope of “naturalism” here does not entail the claim that nature exhausts reality, nor that humans cannot comprehend X if X is non-natural, but rather that all human life and thought, including morality, is nothing other or more than what is comprehended by empirical science—physics (including thermodynamics), chemistry, biology, and psychology—all of which describe purely naturalistic phenomena.

³ Philip Kitcher (2006) writes regarding Foot’s view as well as Thomas Hurka’s (1993) perfectionism, “Both these accounts, while often original and insightful, founder, I believe, because of the failure to take the details of current biological understanding sufficiently seriously” (164–5). See also FitzPatrick (2000) for a sustained critique of Foot et al., based on a selfish gene view of evolution.

2. FROM FUNCTION TO FITNESS

There are many theories of biological function. There are backward-looking, etiological theories and forward-looking, propensity theories (keeping the latter distinct from the propensity theory of fitness to which we soon turn).⁴ There are learning theories focusing on the development of functions beginning with trial and error, and so-called Cummins functions which are instrumentalist and arguably antirealist.⁵ And more recently, there are organizational theories of function.⁶ Aside from the antirealist Cummins functions, the present view is consistent with all of them, though it would work differently for organizational theories than for the others (cf. footnote 10 below). What binds them together is the logical structure of function statements, as laid out by William Wimsatt (1972):

$$F [B(i), S, E, P, T] = C$$

This is to be read as follows: “A theorem of background theory T is that a function of behavior B of item *i* in system S, in environment E relative to purpose P is to do C” (32). For example, “According to biological theory, a function of the beating of the heart in a human in normal conditions and environments, relative to the purpose of exchanging O₂ for CO₂, is to circulate the blood.” What makes this fit to ground normativity is the way *purposes* or *goals* are analytically built-in. Since attaining a goal is the purpose of a function, and goals can be successfully attained or there can be failure in that regard, the difference between function and malfunction can ground a distinction between how things “ought to be” and how they “ought not to be”: items with functions ought to function and not malfunction.⁷ (Whether or not this is sufficient to explain moral normativity will come out in the discussion below.)

⁴ For etiological theories of function, see Wright 1973 and 1976; Boorse 1976; Millikan 1984; Neander 1991. For propensity theories, see Godfrey-Smith 1984; Bigelow and Pargetter 1987.

⁵ For learning theories, see Mace 1949; Scheffler 1958; Campbell 1960; Wimsatt 1972; Enç and Adams 1992. For Cummins functions, see Cummins 1975.

⁶ Schlosser 1998; McLaughlin 2001; Christensen and Bickhard 2002; Weber 2005; Mossio et al. 2009; Moreno and Mossio 2015.

⁷ Kantians might worry about this based on Kant’s claim that moral prescriptions are categorical and so do not rely on purposes or goals, while the present view does just that. But the distinction between categorical and hypothetical imperatives is valid only if the purposes involved are contingently possessed by agents, and the distinction becomes purely formal or notational for purposes which all agents have necessarily. One can see the distinction arising for Kant because he assumed happiness or prudence, which he recognized as a goal that all people seek, is different than morality which is contingent upon having a noumenal good will. If morality is understood in terms of eudaimonia, the hypothetical/categorical distinction loses its theoretical force. We can only imagine what Kant’s philosophy would have looked like had he known about evolution. For further discussion of these claims see Bloomfield (2013).

Both epistemology and semantics have normative components and, in both fields, theories based on biological function have been developed. In the former, naturalistic descendants of Alvin Plantinga's (1993) functional theory of warrant have been developed by Tyler Burge (2009, 2010) and Peter J. Graham (2012), and bear strong resemblance to the virtue epistemology of Ernest Sosa (1980, 2007), John Greco (2010), and Bloomfield (2000, 2001). Regarding semantics, Ruth Millikan's (1984, 1990) influential teleosemantic theory is based on her etiological account of "proper function".⁸ The plausibility of these epistemic and semantic views blunts one of the most prominent objections to naturalistic moral realism, which has been helpfully dubbed by David Enoch (2011), the "just too different" objection. The worry is that natural facts tell us how things are while moral facts tell us how they ought to be and these two kinds of facts are *just too different* from each other to see how normativity could be derived from nature. But what exactly is the bar to seeing normative moral facts as a subset of natural facts? If epistemic normativity (how we ought to form beliefs) and semantic normativity (how we ought to use words) can be grounded in biological function, then there can be no a priori reason why moral normativity (how we ought to act) cannot be grounded in the same way. The "just too different" objection is either the result of an unfamiliarity with the resources of biological science or a failure of imagination.

What about Hume's famous dictum (1739) that we can never derive an "ought" from an "is"? Here too, the concept of *function* can bridge the gap. While A. N. Prior's (1949, 1960) work on inferring an "ought" from an "is" has come under scrutiny from various philosophers (Pigden 2010), his most plausible counterexample to Hume is obscurely placed and has not received any attention at all. Alastair MacIntyre (1981, 57) quotes Prior claiming that from the premise "he is a sea captain" we can infer that "he ought to do whatever a sea captain ought to do".⁹ Notice here that "sea captain" is operating strictly as a functional term and so has goals and purposes analytically built-in: a sea captain getting lost at sea is analogous to a heart in myocardial infarction. A better example than sea captains, because it comes directly from evolutionary theory, was used above: across all times and cultures, parents who abuse or neglect their children are not doing what they ought to do. Two paragraphs above, it was claimed that "items with functions ought to function" and this itself yields an "ought" from an "is": from the claim

⁸ Drew Johnson (2021) has developed a compelling semantic framework for moral terms based on Millikan's teleosemantics that is overall consistent with the present picture. For more on moral language in this regard, see Bloomfield (1998, 2001, 2003) and Dowell (2016).

⁹ In personal communication, MacIntyre confirmed that this example of Prior's was one that came up in conversation between the two of them. In Prior (1960), he explores a similar inference to the one above involving sea captains, but uses "Church officers" as an example. Bringing in religious conventions makes the chosen example problematic. Sea captains are better, as the functions of a sea captain are not as contingent upon convention as the functions of Church officers. As noted, the moral normativity of parenting is the best example as parenting is a purely natural phenomenon.

Another counterexample to Hume not discussed at all in the literature is an idea that seems platitudinous: namely, "treat like cases alike," which is elliptical for "when cases *are* alike, they *ought* to be treated alike".

that an item has a function, it follows that there is something it ought to do; and when an item is malfunctioning, something has gone wrong. We could use Prior's inference as a model for strict biological functions: from the premise "this is a heart" we can infer that "it ought to do whatever a heart ought to do".

The biological functions of traits are understood within evolutionary theory as "contributions to an organism's fitness" (Walsh and Ariew 1996). And population geneticists studying the fitness of traits per se require some understanding of the fitness of individual organisms, for the fitness of a trait is defined in terms of the average fitness of the organisms having that trait (Sober 2013). Fitness is most commonly understood as a propensity, given the dispositional quality of the concept of *fitness* (Mills and Beatty 1979). The crucial element of the propensity theory of fitness is that fitness should not be understood in terms of actual, categorical success at survival and reproduction, but rather in terms of propensities to survive and reproduce. As Elliott Sober explains the standard view (of which he is somewhat skeptical, see Sober 2020):

there is the important insight that individuals of identical fitness can differ in how successful they are at surviving and reproducing. The individuals have the same abilities, but good luck for some and bad luck for others can lead to unequal outcomes. (2013, 336)

The key example was first discussed by Michael Scriven in 1959 and involves twins who are assumed to have equal fitness up to the point where one is struck by lightning and the other is not.

Now, while talk of the fitness of particular traits is not problematic, when it comes to discussing the fitness of individuals, taken as whole organisms, epistemic problems with experimental measurement arise. (Recall that "eudaimonia" will be defined below in terms derived from "individual fitness".) Whether or not having a larger dorsal fin enhances the survival and reproductive rates of a species of fish can be determined by measuring sizes of those fins of actual members of the species and analyzing the data to see if those with a bigger fin do better. The problem with measuring the fitness of an individual organism is that it cannot be derived from measuring its survival and reproductive rates from a single set of circumstances. As Sober (2013) suggests, we would need "carbon copies" of the organism to be placed in a variety of situations to analyze how it (they) would fare overall. But as Sober (2013) has eloquently put it, organisms "taste of life but once", and as Karl Popper (1959) has pointed out, unrepeatable events "cannot be decided by science". Because our lives are unrepeatable events, individual fitnesses cannot be measured by empirical science. Nevertheless, individual fitnesses need to be quantified over by evolutionary theory, as the value of a bound variable, for the reason given above: the fitness of a trait, which is measurable, is understood statistically as the average fitness of the organisms having that trait.¹⁰

¹⁰ There is a theory of population genetics, called "statisticalism", which attempts to calculate the particular fitness of traits without appealing to individual fitnesses (Matthen and Ariew 2002; Walsh,

As for establishing realist credentials, crucially, this worry over individual fitness is epistemic not metaphysical: as a quantity, an individual's fitness cannot be empirically measured, even if this measurement is theoretically possible (as Sober suggests). An individual's fitness is like the number of stars, real but unknowable; it is unlike phlogiston, which is unknowable because it does not exist. The present version of moral realism is trying to demonstrate how moral properties are grounded by the biological properties of *having a function* and *individual fitness*. So, despite the epistemic difficulty, given how population geneticists rely on a metaphysically realist view of individual fitness, the present ontology of moral properties is not bothered by the fact that these fitnesses can neither be directly observed nor measured by scientists (contra Harman 1977). It is sufficient that we have good reason to think that natural facts exist determining which individuals are fit and which are not: however problematic an individual's fitness may be to measure, the denial that some members of a species are, in fact, more fit than others would make natural selection and thereby evolution impossible.

Before turning to eudaimonia, there is one measurement of individual fitness which evolutionary biologists have stipulated and which bears on the position of Foot and her cohort. Every theory of fitness, including the propensity theory, yields the result that sterile organisms have an individual fitness of zero, as it is impossible for them to reproduce. We will return to sterility below in its relation to eudaimonia, but the present point involves the fitnesses of individuals who are not sterile but nevertheless fail to reproduce for other reasons.

There have been (and perhaps still are) parts of Mexican culture in which the youngest daughter of a family was expected to never marry but rather to remain in her parent's house and take care of them as they age while her older sisters marry and raise their own children. On average, there is no reason to think these youngest daughters were any less capable of successfully reproducing than their child-bearing sisters. On the propensity theory of fitness, these youngest daughters were, on average, just as fit as their sisters despite failing to reproduce, assuming that siblings have, on average, the same or similar propensities. As an analogy, imagine a single, healthy acorn planted in an ideal

Ariew, and Matthen 2017). If these views can obviate the need to posit individual fitness, then a biologically grounded theory of moral realism will have to advert a different strategy to remain viable. One option would be to adopt the "organizational theory" of functions mentioned above, which holds that individual "self-maintenance" can be understood in a manner which is orthogonal to standard evolutionary theory. Such a view might be very close to Foot's and it has been impressively developed by Parisa Moosavi (2018, 2019, 2022). If this fails as well, there are at least two other options for the realist eudaimonist. One is to understand eudaimonia by way of a developed analogy between morality and language, using a roughly Chomsky-ian view of grammar as a constraint on human language as a model for how morality constrains eudaimonia. John Mikhail (2011) has developed one form of this argument. A second option would be to define "eudaimonia" in terms of "positive psychological health". The viability of this kind of view would depend on the future outcomes of the nascent subfield of "positive psychology," which might yield an empirically informed picture of human flourishing based on virtue (e.g., Seligman and Csikszentmihalyi 2000; Peterson and Seligman 2004). For extended general discussions of how to realistically model *moral goodness* on *physical healthiness*, see Bloomfield (1997, 2001).

environment for oaks. Because of its ideal niche, this acorn will grow into an oak whose traits have developed to a high degree relative to other oaks, it is strong and thriving. For whatever reason, however, imagine the acorn for this oak had been transported and planted too far from any other oak tree to successfully reproduce. The propensity theory of fitness would say the oak tree's individual fitness is not zero, despite its actual failure to reproduce. The same reasoning works for people who are kept from having children by social forces or those who simply *choose* to not have children: these non-reproducing people can still have an individual fitness greater than zero, they can still flourish.

One reason Foot (2001) defends human exceptionalism is because she thinks only it can accommodate the idea that humans can flourish despite choosing to be childless:

Lack of capacity to reproduce is a defect in a human being. But choice of childlessness and even celibacy is not thereby shown to be defective choice, because human good is not the same as plant or animal good. The bearing and rearing of children is not an ultimate good in human life, because other elements of good such as the demands of work to be done may give a man or woman reason to renounce family life. And the great (if often troubling) good of having children has to do with the love and ambition of parents for children, the special role of grandparents, and many other things that simply do not belong to animal life. (42)

On the propensity theory of fitness, which was first published in 1979, it is not the case that being childless by choice entails having a fitness of zero, so Foot's (2001) drastic move to human exceptionalism was not warranted, at least for this reason.

(A note on "the special role of grandparents" that Foot mentions, which supposedly does not "belong to animal life": Darwin explains the sterile nature of female worker bees explicitly in terms of the relation between a Queen bee and her grand-offspring (Sober 2011). For the same sort of reason, in the parts of Mexican culture referred to above, the children of the older daughters might well get a selective advantage from their mothers not having to care for their grandparents.)

3. FROM FITNESS TO EUDAIMONIA

The present theory of *eudaimonia* does not equate it to *individual fitness*. For one thing, since fitness is a propensity, it is a dispositional property, whereas *eudaimonia* must be categorical. Rather, the goal is to construct the meaning of "eudaimonia" from a subset of all the functions of the organism which, when aggregated, yield the individual's fitness. So, which functions are those that are essential to an organism's flourishing or *eudaimonia*? A hypothesis can be drawn from Burge's (2009, 2010) discussions of perception, agency, and action theory. From the field of zoology, Burge imports into his account the concept of *whole animal function* or *organismic function*. The concept distinguishes those biological functions carried out by particular organs or sub-systems

within an organism from those functions of organisms when these are considered only as whole individuals. Burge argues that organismic functions are the grounds of agency and action in general. Examples are sleeping, eating, navigating, predating, mating, parenting, etc.

So, each species will have evolved its own repertoire of traits to solve those particular evolutionary challenges (i.e., finding shelter, obtaining food, returning home, etc.) which must be managed by the entire organism. Call these challenges “life problems”. Given these ideas, “eudaimonia” can be defined as follows:

Eudaimonia: for any species *X*, a member of that species, *x*, is a eudaimon [is flourishing] if and only if *x* has developed to a high or excellent degree the propensities for carrying out the organismic functions characteristic of *X*, which solve, in normal environments, the life problems characteristic of *X*.

The “species relative” aspect of eudaimonia, adverted to above, is made plain in the definition.

“Normal environments” are those within which a species evolved, employing its characteristic traits or those traits distinguishing it as a species. In normal environments, birds build their nests and bees their hives. Species reproduce and generations come and go as the environment fluctuates within a normal range. Take members of a species out of their natural environment, take fish out of water, put dinosaurs in an ice age, and there may be no way to survive much less flourish. Mutatis mutandis, humans are no different. We live in societies which also give out and die, but our species continues (at least so far). Normal conditions are those in which human societies have arisen and declined. But there are also, at times, conditions in which the environment causes a partial extinction of the species, say severe famine, and these conditions are obviously not normal for the species, as survival in them is impossible, much less eudaimonia.

The hard normative question is whether there are environments in which survival is possible but eudaimonia is impossible even for the most excellently functioning members of the species.¹¹ This is an open empirical question, but there is something to be said for a creature doing as well as possible even in the worst of circumstances. Exhibiting grace under fire, whatever that amounts to for any species capable of it, might count as the height of flourishing for those creatures. (“It is a far, far better thing that I do . . .”) However hopeless our circumstances may be, no one can ask for more than the ability to live up to their best potential in the most difficult times. If more is necessary for eudaimonia, including Aristotelian “external goods”, having them is pure moral luck and so out of our control, and as such outside the purview of moral theory. There is no reason to theorize morally about what is not under our control, and so there is also no reason to think that flourishing guarantees a trouble-free or even long life. All lives face

¹¹ This is a contemporary and generalized form of the ancient debate over whether the virtues are sufficient for eudaimonia. For more on this, see Annas 1993; Bloomfield 2014a.

rough seas at some point. It is most plausible to think that flourishing is doing the best we can wherever we may be.

In applying the definition of “eudaimonia” above to *Homo sapiens*, the relevant life problems, as situated in normal environments, have been baptized colloquially as “the human condition,” and human flourishing is therefore the result of managing the human condition in an excellent fashion. Unsurprisingly, the obvious next question is: which traits allow *Homo sapiens* to flourish, given the human condition? Or, given the characteristic ways in which human beings navigate through the world, acquire and consume food, perform our rites of passage and mating rituals, parent our offspring, etc., which traits determine whether or not we meet these challenges excellently or poorly?

Up to this point, the account has been normatively neutral. We could adopt Kantianism, consequentialism, virtue theory, or some other option depending on which does best at making human life flourish. It is still an open question as to which normative ethical theory gives the best answers to the life problems we face. Refreshingly, one virtue of naturalistic moral realism is that, ultimately, it makes this question be an empirical one, however hard the relevant data might be to obtain: having a complete and true moral theory is as likely as having a complete and true medical theory (Becker 1998, 2012; Bloomfield 2001).

These normative questions about which lives do or do not flourish will have to be answered by the moral philosophers, psychologists, and ethologists who work on these issues. But one plausible answer comes straight from ancient Greek eudaimonism: the moral virtues. These are the “excellences” which make human life go well. While Socrates (as portrayed in *Gorgias*) and the Stoics argued that virtue is sufficient for eudaimonia, this claim is highly contentious. Still, it seems as if Socrates, Plato, Aristotle, the Stoics, even Epicurus, and much of commonsense (*endoxia*) agree that virtue is at least important to (if not necessary for or partly constitutive of) a flourishing life or eudaimonia. This may be wrong, but an attempt to ground eudaimonia at least partly in virtue is *prima facie* justified. Obviously, what follows is a mere sketch, but will suffice to demonstrate how the formal structure of eudaimonia, given in the definition above, could be normatively filled out for human beings.

We begin with the widely accepted claim, also rooted in Greek philosophy, that virtues are character traits. Character traits themselves are understood by psychologists nowadays as a subset of personality traits, where such a trait is defined as “a disposition to behave expressing itself in consistent patterns of functioning across a range of situations” (Pervin 1994, 108). According to Christian Miller (2014), what distinguishes the subset of character traits is that they are the traits over which we can exercise some amount of voluntary control and which open a person to normative assessment.

Crucial for understanding virtues is to attend to the “range of situations” in which character traits may express themselves. This thought too can be traced back to ancient eudaimonism; an extended quote from Martha Nussbaum (1988) is most indicative:

What [Aristotle] does, in each case [of discussing a particular virtue], is to isolate a sphere of human experience that figures in more or less any human life, and in

which more or less any human being will have to make some choices rather than others, and act in some way rather than some other. The introductory chapter enumerating the virtues and vices begins from an enumeration of these spheres (EN II.7); and each chapter on a virtue in the more detailed account that follows begins with “Concerning X . . .”, or words to this effect, where “X” names a sphere of life with which all human beings regularly and more or less necessarily have dealings. Aristotle then asks, what is it to choose and respond well within that sphere? What is it, on the other hand, to choose defectively? The “thin account” of each virtue is that it is whatever it is to be stably disposed to act appropriately in that sphere. There may be, and usually are, various competing specifications of what acting well, in each case, in fact comes to. Aristotle goes on to defend in each case some concrete specification, producing, at the end, a full or “thick” definition of the virtue. (35)

This idea is familiar from contemporary virtue ethics: e.g., Christine Swanton (2003, 20–1) also appeals to the idea of “the field of a virtue” in her discussion of “The Anatomy of Virtue” while constructing her “pluralist view” of virtue.

The word “cardinal” derives from the Latin “*cardo*” that translates as “hinge” or “axis”, conveying the idea of “that upon which something turns or depends”. Terrence Irwin (2005) cites early Greek literary figures such as Aeschylus, Pindar, Xenophon, and Demosthenes grouping the cardinals more or less together and, citing Plato’s *Laches* 197e10–198a6 and 199d4–e5, he writes that *courage*, *temperance*, *justice*, and *wisdom* were taken by Socrates as the “primary virtues to be collectively sufficient for being a good person . . . for he expects his interlocutors to agree that a person who has all the primary [cardinal] virtues thereby has the whole of virtue” (2005, p. 91). The basic structure of Stoic ethics is based on these virtues (Long and Sedley, 1987, §61) and Aquinas quotes Gregory saying, “The entire structure of good works is built on [these] four virtues” (1947, I. II. Q. 61, article 2). The basic idea is that the cardinal virtues are the axes upon which eudaimonia swings, where each virtue manages a “range of situation” or a “sphere of human experience” endemic to the human condition.

A brief gloss of these four virtues should demonstrate the scope of the theory and their relations with eudaimonia, as defined above. We may begin with courage, as it often but not always concerns survival. The world is dangerous, and we are mortal. In particular, *Homo sapiens* inherited the “fight, flight, or freeze” mechanism as a phylogenetically old adaptation for managing dangerous circumstances. *Courage* is the character trait by which we can gain control, to one degree or another, over this mechanism, such that we do not simply respond instinctually to danger and fear but rather respond in a controlled and excellent fashion, regardless of the circumstance. If we adopt Aristotle’s hypothesis that each virtue is flanked by opposing vices (2000, 1106a26–b28), courage can be seen as flanked by the traits of cowardice and recklessness.

Also inherited from older species, human beings have a variety of appetites, desires (including aversions), and passions (including emotions), and *temperance* is the character trait which allows us to excellently self-regulate these non-cognitive or affective capacities. Temperate people have trained themselves to not be tempted by what ought not to be tempting. They do not struggle with continence, much less weakness of will:

they only succumb at will. Their emotional responses are appropriate or fitting to the circumstance; they are “well-tempered”. Aside from learning to regulate appetites and desires, but by similar means, we may learn to regulate passions and emotions. One aspect of temperance comprises the psychological subfield of “emotional self-regulation” (Gross 2014; Vohs and Baumeister 2016). Temperate people celebrate joyous occasions, indulge salubrious passions in the right way and at the right times, and they mourn lost loved ones in a manner that allows them to heal and recover from the loss. Resilience and flexibility are the result of being well-tempered in both metallurgy and character development; these are different than grit (Duckworth 2007; Morton and Paul 2019), which is more closely related to diachronic perseverance (Battaly 2017), though these are still aspects of temperance. Being well-tempered in these ways becomes especially important to understanding whether or to what degree virtue is sufficient for eudaimonia. If, e.g., part of being well-tempered is withstanding and rebounding from hardship, then this will guard a temperate person’s eudaimonia from all but the most tragic of circumstances. The vices opposing temperance are, on the one hand, gluttony, including emotional indulgences such as being envious, unduly worrisome, or being quick to anger or “losing one’s temper”. On the other hand, some people allow their desire for control to be too controlling and traits like teetotaling abstemiousness or being overly disciplined, rigid or dour, or just being a “stick-in-the-mud” are possible results.

The virtue of *justice*, understood as a personal character trait and not a trait of social institutions, was understood broadly by the Greeks to include all social behavior (Vlastos 1968; Annas 1999), and so the “range” of justice is found not merely in the courtroom or in relations between fellow citizens or strangers but includes familial and friendly relations as well (Hampton 1993, Bloomfield 2021). While not fully appreciated, central to justice is the concept of *respect*, where the proper respect of others is inextricably bound to proper self-respect (Bloomfield 2011, 2014a, 2017). Thus, we may follow Aristotle (2000, 1133b30), who says that “justice is a mean between committing injustice and suffering it, since the one is having more than one’s share, while the other is having less”. If we accept this, then we may see justice as the virtue flanked by the vices of arrogance (*pleonexia* or those who arrogate more respect than they are due) and servility (those who willingly accept less respect than their due).

The final cardinal virtue is *wisdom* or rationality, and it is a special case. This is because the solutions to all the life-problems of the human condition require practical rationality. If there is an “ur-virtue” or one informing, governing, or even binding the others together, it is wisdom. Indeed, Plutarch interprets Zeno of Citium, the founder of Stoicism, as thinking that there is only one virtue, namely wisdom, and it manifests as the others in different spheres of experience (Long and Sedley 1987, 377–78). To begin with, one function of wisdom is to veridically discern naturalistic value in the world, and given the moral realism presently on offer, there are facts about what is good and bad in the world and what is not. Wisdom ought to guide axiology. But on top of informing our values, wisdom or rationality ought to guide our deliberations and actions based on those values. So, rational choice theory is part of the *logos* of wisdom. There are also empirically informed theories of wisdom on offer, coming from psychology. One of

the first contemporary theories of wisdom was Robert Sternberg's (1998) view, understanding it in terms of *balance*, while more recently the San Diego Wisdom Scale (SD-WISE) was developed with explicitly neurobiological underpinnings, and its developers claim that "results support the reliability and validity of SD-WISE scores" (Thomas et al. 2019). More philosophically informed than SD-WISE, the Berlin Wisdom Paradigm was developed by Paul Baltes and Ursula Staudinger (2000 and Baltes 2005). On this view, wisdom is a "metaheuristic" or an "expert system", the function of which is to help people navigate through the "fundamental pragmatics of life", which are understood as follows:

knowledge and judgment about the essence of the human condition and the ways and means of planning, managing, and understanding a good life. Included in the fundamental pragmatics of life are, for example, knowledge about the conditions, variability, ontogenetic changes, and historicity of life development as well as knowledge of life's obligations and life goals; understanding of the socially and contextually intertwined nature of human life, including its finitude, cultural conditioning, and incompleteness; and knowledge about oneself and the limits of one's own knowledge and the translation of knowledge into overt behavior. (2000, 124)

Similar philosophical theories of wisdom have recently been developed which conceive of wisdom as a skill or expertise (Swartwood 2013; Stichter 2016, 2021; Tsai 2019). Note the themes running through Baltes's "fundamental pragmatics of life" are found in Nussbaum's "sphere[s] of life with which all human beings regularly and more or less necessarily have dealings" and how these are tied to the discussions above of "organismic function," "life problems," and the "human condition".

We expect wise people to be capable of navigating through the human condition in an excellent and fine way, as well as the vicissitudes of life allow. How do they do it? They must be finely attuned to the difference between appearance and reality and thus capable of seeing "below" the surface features of a situation, having genuine insight and perspicacity. Problems are rooted out. The desire to see through appearances and into the nature of reality is why philosophers study metaphysics and, in general, why *philosophy* is literally "love of wisdom". With wisdom in hand, the other virtues bring in specialized knowledge and experience which guides virtuous people to do the right thing, at the right time, in the right way, and for the right reasons. The overarching goal of virtuous action is "the noble" or "the fine", or *to kalon* (Crisp 2014). While the exact relation of the virtues to each other is complex and vexed, involving the "unity of virtues" thesis, one minimal and defensible claim is that possessing wisdom, including a generalized and veridical axiology, is necessary but not sufficient for the other virtues (Bloomfield 2014b).

Three final points may be helpful before turning to objections. First, the claim that virtues are grounded in evolutionary processes entails that the virtues are traits, not that they are adaptations. Human beings are neither moral nor immoral by nature. The idea can be understood on the model of language (cf. footnote 10): we inherit genetically the capacity for language which develops into a particular language in normal

environments. Recursive grammar is an adaptation, speaking English is a trait. On this model, Aristotle got it right when he wrote, “The virtues arise in us neither by nature nor contrary to nature, but nature gives us the capacity to acquire them, and completion comes through habituation” (2000, 1103a24–5). The relevant “capacities” are the adaptations or mechanisms enabling human beings to have at least some long range, voluntary control over our characters.¹² E.g., courage was glossed above as the trait by which we may excellently manage our instincts to “fight, flight, or freeze”. We can only excellently regulate our orectic and emotional instincts by temperance, our social lives by justice. Like the degree to which we become literate, the work to establish these forms of self-mastery, by developing these capacities is, ultimately, up to each of us alone.

The second and third points involve successful reproduction. Second, on this view, an organism can have a fitness of zero and still flourish. A sterile drone bee will flourish if it develops to an excellent degree its characteristic organismic functions, those solving the life problems of a drone bee. Sterile hybrids, like mules, can also flourish. Therefore, sterile members of *Homo sapiens* can still flourish. The flexibility of the view stretches beyond accommodating childlessness, as one can see how being a human eudaimon—being courageous, temperate, just, and wise—is compatible with a variety of lifestyles and vocations. Humans are multi-talented, highly adaptive creatures, and this flexibility allows our flourishing to take many forms. Whether or not it can accommodate being a gangster or being a slave will be discussed below.

The final point involves parenting. For evolutionary reasons, it is worth emphasizing the importance of the virtues for solving all the life-problems associated with being a good parent. There is more to successfully reproducing than conception and birth, as offspring must survive through adolescence to be capable of themselves reproducing.¹³ Thus, parenting skills are essential to the evolutionary goals of survival and reproduction, and there is commonsense plausibility to the hypothesis that courageous, well-tempered, fair, and wise parents will be the best parents.¹⁴ The following seems guaranteed by natural selection: were the traits constituting an individual’s own eudaimonia to diverge too greatly from the traits that would make the individual be a good parent, this would amount to a recipe for the extinction of the species to which the individual belongs. So, the relation of eudaimonia to parenting is derived from the

¹² The term “long range, voluntary control” comes from William Alston (1988). See also Miller 2014.

¹³ Ornithologists have coined the term “aggressive neglect” to refer to the way that some male birds are so busy defending their territories against interlopers that they neglect their paternal duties to feed their young, who end up malnourished and sometimes dying as a result (Dillon Ripley 1959, 1961; Hutchinson and MacArthur 1959).

¹⁴ In personal communication (June 16, 2018), the anthropologist Sarah Hrdy writes, “Relevant to your thesis that the ‘best human parents will be brave, well-tempered, fair, and wise, and the children of these parents will be most likely to survive and flourish themselves’ is the recent interest by anthropologists in child-rearing among African and other people still living as hunter-gatherers. . . . In general, these findings are consistent with your thesis though I would add ‘tolerant’ [to the list of virtues]”. A traditional virtue theoretic perspective would understand tolerance as an aspect of temperance. Hrdy cited the following in support: Hewlett and Lamb 2005; Konner 2010; Meehan and Crittenden 2016.

propensity view of fitness: what is necessary for an individual's flourishing is not actually being a parent, but rather having the propensities for being an excellent or virtuous parent.

4. OBJECTIONS

There is a veritable plethora of objections to the present view. Here is a partial, chronological list, and only some of these have been touched upon above: Hume's (1739) gap between "is" and "ought", Moore's (1903) open question argument, Harman's (1977) worries about observation and explanation, Watson's (1990) gangster problem, Horgan and Timmons's (1991, 1993) Moral Twin Earth, Hursthouse's (1999) and Foot's (2001) human exceptionalism, Copp and Sobel's (2004) worry about relativism, Street's (2006) Darwinian dilemma, Millgram's (2009) Pollyanna objection, and Enoch's (2011) "just too different" argument. Obviously, addressing all these is too large a task for the closing section of an essay.¹⁵ But there is a thread running through the objections of Millgram, Copp and Sobel, and Watson, as each worries in different ways about the normative implications of the view, and grouping them in this way helps show the resiliency of eudaimonistic moral realism.

Elijah Millgram (2009), along with Chrisoula Andreou (2006), object to the Pollyannish attitude toward the nature of *Homo sapiens* which they claim is on the table. In particular, in addressing Thompson's discussion of "Aristotelian categoricals" in *Life and Action* (2008) (with Foot's view (2001) in the background), Millgram writes that "it is pollyannish to suppose that justice is part of the human species form" (561). Citing empirical research in anthropology and evolutionary psychology, Millgram argues that natural selection has left us with behavioral tendencies to engage, in certain circumstances, in infanticide, rape, and domination all inconsistent with justice. We may add cross-cultural tendencies toward racism (Kurzban, Tooby, and Cosmides 2001) and sexism. And the problem seems compounded if we recall Foot's (1958) early claim, derived from Plato, that "if justice is not a good to the just man, moralists who recommend it as a virtue are perpetrating a fraud" (100). (We return to this claim below.) When we look closely at the facts about human life, it appears far too "red in tooth and claw" to be the source of morality.¹⁶

While there might be concerns about the evolutionary psychology behind the cited examples, let us set them aside for another time. To focus on infanticide first, Sarah

¹⁵ For my response to Hume, see Bloomfield (1998, 2001) and to Moore, see Bloomfield (2006). For responses to Harman see Bloomfield (2001), to Horgan and Timmons, see Bloomfield (2001, 2003). This chapter as a whole constitutes a response to Street's dilemma as applied to naturalistic moral realism. Similar discussions of Millgram, Copp and Sobel, and Watson can be found in Bloomfield (2018).

¹⁶ Midgely (1978) argues persuasively that, in fact, animal life is far more "humane" than we typically presume.

Hrdy (2000) acknowledges that under circumstances in which mothers are unable to care for their newborns, mothers often abandon them (passively letting them die) and in direst circumstances will commit infanticide. Now, as Millgram rightly argues, we cannot just squint and ignore such behavior when considering what kind of creatures *Homo sapiens* are. Natural selection has left mothers with these tendencies because it is selectively more advantageous for mothers to have them than not. If we consider the mothers who acted in these ways over the millennia, we clearly have a tragic picture on our hands and justice does not seem to be part of it. Perhaps one could try to argue that, in those circumstances, the mothers really had no choice: they faced a tragic dilemma and had to choose the lesser of evils, and thus preserve some notion of “justice”, but this alone would be only a partial answer.

The proper response begins by looking beyond the prehistorical roots of such traits to how human beings, over the ages, have changed their behaviors despite the existence of such “unjust” tendencies. While it is true that we have been outfitted by natural selection to be violently unjust to our offspring in certain circumstances, we can look at the environments in which those circumstances arose and appreciate that now, given our different environment, most people do not follow their prehistoric tendencies. Prehistoric environments for human beings were radically different than our environment is today. For example, society is now structured so that child abandonment and infanticide is less prevalent than in the distant past (Hrdy 2000). We happily act on some instincts but have learned to resist others: jealousy is almost always frowned upon. Some actions we take go against all instinct, but generally only when the circumstances leave no better option. Some traits might be necessary to survive the worst of circumstances but might work against flourishing if they are engaged in situations where survival is not at issue. If so, then engaging these traits in safe circumstances should be seen as instances of malfunctioning, or that which ought not to occur.

It may be just a just-so story but assume that anger evolved as a response to danger, because the behaviors that demonstrate anger (fists, bared teeth, and loud noises) are effective in warding off danger. As far as this is concerned, humans are on par with other animals (Lorenz 1966). The difference for humans is that many of us use our fists and make loud noises when there is no danger present and, *ceteris paribus*, this makes anger wrong. Worst, perhaps, is when people have a hard day at work, continually holding their tempers, and then “take it out on” or get angry at their spouses or children back home. Folk morality excuses anger when it is in self-defense but not when someone becomes aggressively angry over a trivial matter. Exactly which circumstances justify anger, if any, is a matter of normative theory, and this knowledge is part of the difference between being temperate and intemperate. So is the basic folk knowledge holding that rape is always wrong under all circumstances. No other conclusion is acceptable.

There is no reason to deny selective pressures that made us susceptible to infanticide, rape, and all sorts of unjust practices. These tendencies, under certain circumstances, may have allowed for survival and reproduction, but this does not imply that they were ever unproblematic. With regard to infanticide, it seems likely that at least some (or most) women from ancient times who were compelled by circumstances to perform

it felt dreadful remorse afterward. Men who engage in rape and leave progeny behind during war are, to say the very least, absent fathers whose children suffer for that reason (see footnote 13 above on “aggressive neglect”). Well-adjusted progeny are more likely to survive, turning their parents into grandparents, and evolution alone can give that result.

Slavery and torture used to be ubiquitous practices and thankfully are no longer, though they tragically and criminally still exist. The best explanation for the (sadly recent) repudiation of slavery and torture across much of humanity is that, aside from the obvious harms these practices inflict on their victims, we have also learned over the millennia that it is not good for humans to exercise these kinds of power over others. Tyranny and despotism are self-corrupting and to that degree self-defeating. Undeniably, we are more or less social creatures, so we should not be surprised to find hidden costs to angry, sexist, and racist forms of antisocial behavior. Of course, slavery is harmful to slaves but, as Frederick Douglass (1845/2016) notes, it is also harmful to slave owners. The argument for this kind of social learning is to look empirically, for example, at the modern downfall of slavery’s acceptability, or at the behavior of mothers today who face circumstances which, in ancient times, would have led them to infanticide. In the presence of non-violent options, non-pathological mothers do not choose infanticide. The choices of mothers today, in our contemporary environment, are just as relevant to the argument about how violent human beings are as the tendencies to which we might have succumbed in the distant past due to contingent social or environmental pressure: what is needed for flourishing is not similarly contingent. What makes creatures like us flourish does not change with the environment we find ourselves in. Rather, as noted above, some environments make flourishing easier than others.

Ultimately, the response to Millgram’s Pollyanna problem is to appeal to the claim above about why the virtues should not count as adaptations: nature has left us equipped to flourish but does not require flourishing for mere survival and reproduction. The definition of “eudaimonia” requires propensities to be developed to a “high or excellent” degree, where survival and reproduction are more like a minimum. We are capable of doing better than that. The instinct to “fight, flight, or freeze” is phylogenetically quite old and still has a proper function, but it is unreliable enough that we evolved the ability to manage it which is part of courage. Human traits which evolved when life was “nasty, brutish, and short” were naturally selected for, back then, to aid in survival and reproduction and to some degree they may remain despite now being more harmful than beneficial. What the ethologist Irenäus Eibl-Eibesfeldt (1972) says about the trait of aggression generalizes; in arguing that aggression aided in the survival of the species at early stages of our evolutionary history, she writes:

Nevertheless, in order to make clear that I intend no justification of aggression, let me emphasize once again that not everything that was once adaptive will retain this species-preserving function necessarily forever. Thanks to environmental changes, it is not all that uncommon for an adaptation to reverse itself, for it to be retained as a historical vestige, while it has become in effect a selective hindrance. (p. 75)

Only some of the ancient tendencies we have inherited lead to human flourishing in our contemporary environment. It is the task of an empirically informed normative moral theory to sort which of our traits lead toward and which lead away from our flourishing.¹⁷

And this sorting problem leads to Copp and Sobel's (2004) review essay on virtue ethics, where a relativistic worry is discussed concerning the way in which virtue is supposed to engender a flourishing life. The worry is that if we do not make virtues, like justice, relative to culture then, in certain cultural circumstances, being virtuous might impose significant costs on the individual. For simplicity's sake, let's assume that Aristotle's view of eudaimonism is correct and that flourishing is the result of having both the virtues and some amount of "external goods."¹⁸ Copp and Sobel write:

[I]n rougher times, being fully virtuous might be more costly than it seems here today. Imagine a time and place in which a person who goes along with a vicious aspect of society, say slavery, has full opportunities for a long life of privilege, enjoyment, love, and achievement, whereas speaking up against the viciousness in society promises hostility from the powers that be and worse. (p. 528)

To make a case plausible, it would have to be that the privileged person is not some thoroughly vicious or sadistic slave-owner who enjoys beating and raping slaves, but rather an otherwise virtuous person who reluctantly "goes along" with these vicious yet parochially endemic practices.

Let us take Thomas Jefferson and slavery as our example. Like Douglass, who saw these issues from the other side, infamously, Jefferson had hypocritical attitudes toward race, slavery, and freedom and clearly saw the evil effects of slavery on both slaves and masters (Gordon-Reed and Onuf 2016, 57–65). He called slavery a "school for despotism" and sought to ameliorate the negative effects of slavery on his slaves as much as possible. He never beat slaves (though he did once have someone else beat a slave), and he established a factory on his plantation to make nails so that it could be run by his 10- to 16-year-old males slaves for the purpose of helping them learn a skill. Whatever vices Jefferson had, and he surely had many, he thought it was possible to be a "good slave master". Again, for the sake of simplicity, let us assume that Jefferson was as just and as good he knew how to be, given the unjust cultural environment in which he was raised.

By way of response, we may begin by acknowledging the force of Copp and Sobel's concern. Still, notwithstanding this force, it is not hard to imagine how Jefferson's life would have gone better had he been born into a just society in which slavery did not exist. It is far from unreasonable to think that humans on average live better lives in less

¹⁷ For a different response to the Pollyanna problem, see Kim 2018.

¹⁸ The problem discussed here would not arise for Stoics who think virtue is sufficient for eudaimonism. Of course, Stoics would use such examples to argue against the Aristotelian claim about "external goods" being necessary for eudaimonia, and Annas (1993) calls Aristotle's view "unstable" for this sort of reason.

violent and oppressive societies than in more violent and oppressive societies. Short of voluntary ostracism or emigration, there is often little way to escape unjust yet prevalent social practices; if leaving is not an option, then those who are immorally empowered do not choose the society in which they live. So, the real challenge has to be those cases where people do have a choice about where and how to live.

Given this, we should bite Copp and Sobel's bullet. Biting the bullet here means insisting that Jefferson's life would have been better had he the integrity to be true to his principles regarding human freedom and liberty. Had he that integrity, he could have freed his slaves, sold Monticello, and made his living some other way which did not involve owning slaves, even if he would not have ended up as prosperous and materially successful as he actually did. Compare the actual Jefferson to our hypothetical alternative who sells Monticello. Of course, the latter could have taken his prodigious intellect and talents (his individual fitness) with him wherever he went, so there is little reason to think Jefferson would have ended up starving or destitute. The point is that even if Jefferson had he grown old in, say, Boston, in circumstances not as luxurious as they actually were in Virginia, he also would not have been burdened by being a living embodiment of "a house divided against itself": writing his most famous and important words into the Declaration of Independence, "All Men are Created Equal", *while owning slaves* is staggering hypocrisy of mind-numbing proportion. The normative claim is that Jefferson's hypocrisies harmed his flourishing, and he would have been better off without them despite the lessening of "external goods" which may have accompanied these changes. If, on the other hand, Jefferson decided to abandon his political principles to avoid the hypocrisy, his life would have gone worse for the loss of the justice he actually possessed.

The reason behind this is that, if we accept the hypothesis of moral realism, then there are facts about which lives are good and which are bad, which acts are right and which are wrong; there are facts in general about what has value and what does not, given what is required for human eudaimonia. The normative claim is that speaking the moral truth while living in accord with immoral values is bad for a person: assuming a person knows the difference between right and wrong and good and bad, that person's flourishing requires them to value and honor what is good and scorn and disown what is bad. Failing this is a form of moral schizophrenia (Stocker 1976) which the actual Jefferson clearly manifested.

But, for the sake of argument assume this claim is false. Its denial is still equally in accordance with moral realism: all realism per se demands, is the truth of the claim that there are facts about which lives go better. If this were not the case, Sobel and Copp's argument would not have the force it does. For the moment, while staying normatively neutral about what is in fact good and bad, moral realism entails that, to whatever degree possible, it is good for human beings to value, honor, and respect what is truly valuable and good in the world, and that it is bad for them to value, honor, and respect what is in fact bad while mistaking it for what is good. (The triviality of this idea, given moral realism, is something no other metaethic can claim.)

And this leads directly into Gary Watson's important gangster example. In his (1990) paper, "On the Primacy of Character," Watson writes:

Even if we grant that we can derive determinate appraisals of conduct from an objective description of what is characteristic of the species, why should we care about those appraisals? Why should we care about living distinctively human lives rather than living like pigs or gangsters? Why is it worthwhile for us to have those particular virtues at the cost of alternative lives they preclude? (469)

The worry about humans living porcine lives cannot be serious, at least, if taken literally: a human could not survive living in a literal pigpen among the pigs. But a gangster's life is different, and while we may presume the average gangster lives a shorter life than normal (or an incarcerated life), "gangster life" is one which has certainly allowed many to survive and reproduce. But can gangsters flourish too? While Foot gives her own response to Watson's example in *Natural Goodness* (2001, 53ff), we can finally return to an earlier thought of hers which also bears on interpreting Watson's challenge.

As referenced above, in "Moral Beliefs" (1958), Foot presents a version of a direct challenge to morality, the original of which is quite old, going back to at least Plato's time, if not Homer's. Again, Foot's Platonic claim is that "if justice is not a good to the just man, moralists who recommend it as a virtue a perpetrating a fraud" (100). Let's understand "justice" in a roughly conventional way and not, e.g., as "might makes right". So, the gangster is unjust. Given the way justice seems to require sacrifices to self-interest, why should we think that being just partly constitutes eudaimonia, rather than injustice which seems to require no such sacrifices? We should expect morality in general and justice in particular to be justifiable when challenged by immorality and injustice. There ought to be a principled answer to the question, "Why be moral?"

While various contemporary answers have been given at the level of normative theory (Brink 1990; Bloomfield, 2011, 2014a, 2017; Badhwar 2014), the moral realist's response to Watson, like the responses to Millgram and Copp and Sobel, begins by acknowledging the legitimacy of the challenge. Here too, the final response is to bite the bullet. The answer to the question "What kind of life is best for a human being?" is the point at which the metaphysical requirements of moral realism meet the normative task of answering that very question: what *is* required for human life to flourish? Is the life of a gangster compatible with eudaimonia? Many, from Thrasymachus and Callicles to Machiavelli (1995) and Nietzsche (1892/1954) seem to answer in the affirmative, at least for kings and Übermenschen. Plato answered in the negative: in *Republic*, he argued to hardly anyone's satisfaction that injustice and tyranny lead to "psychic disharmony". While it may be hard to imagine, biting the bullet here implies that if the gangster's life really is the best life humans can hope for, then the moral realist should conclude that Al Capone and Bugsy Siegel should replace Socrates and the Buddha as moral exemplars.

Given how our values are expressed in our actions and, therefore, given the central roles morality and immorality may play in our most important decisions, it seems incredible to think that eudaimonia is *equally* compatible with being just and unjust.

If realism is accepted, then both views cannot be correct. One can imagine a “tie” between deontologists and consequentialists insofar as both are equally good at producing eudaimonia. But one cannot imagine a similar tie between the normative theories of Socrates and Thrasymachus. Smart money would be on the saint and not the gangster, on justice and not injustice, but biting this bullet implies that we should let the chips fall where they may and if our best normative and psychological theory concludes that the gangster’s life is really the best a human can hope for, then so be it.

Eudaimonist moral realism is the view that there are natural facts about moral values, about what is right and wrong, natural facts about which lives go well and which do not. But how much doubt can there really be over whether it is better, all things considered, for human beings, *regardless of their circumstances*, to have characters which are courageous, well-tempered, fair-minded, and wise or, alternatively, for their characters to be reckless, gluttonous, arrogant, and foolish? Even without assuming the answer is as obvious as it seems, eudaimonist realism is only committed to the claim that there is a factual, correct answer to this question.¹⁹

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