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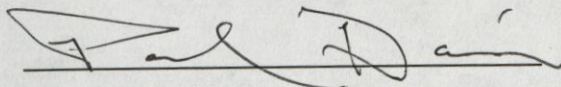
Creation

Nickolas Boylan

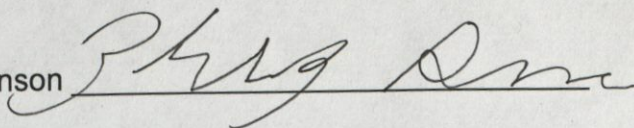
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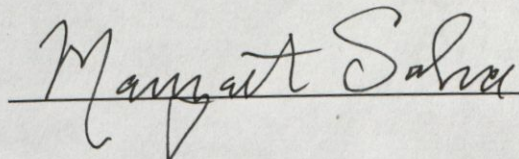
Paul Davies

A handwritten signature in cursive script, appearing to read "Paul Davies", written over a horizontal line.

Philip Swenson

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Margaret Saha

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Abstract

Evolution by natural selection, though developed as a view to explain the diversity of life and its many adaptations, is, at a fundamental level, a process which occurs in any system with the right conditions to support it. This idea, called universal darwinism, is founded on the realization that the fundamental claims of evolutionary theory are not rooted in anything particular to biology. In particular, culture has been a focus of the universal darwinist project, with views such as memetics and more recently Cumulative Cultural Evolution arguing that in our cultures we find another darwinian realm, and that thus to understand culture we must view it through an evolutionary lens. If true though, cultural evolution has some worrying implications. Evolutionary processes are “algorithms” which are directed towards the maximization of certain specific ends. These ends are not directly aligned with those ends that humans typically value, and thus we should expect that the evolutionary processes responsible for both our biology and culture will result in systems which are ill aligned with the ends we value. In this paper, I explore the mechanisms that biologists use to explore biology which fits better with human ends than evolutionary ones, and apply these methods to culture. I will argue that the task of the ethicist ought then to be much like the task of the synthetic biologist, not to compare what happens to have occurred and been created by the evolutionary history of our culture, but rather to find unexplored possibilities in the realm of norms and culture and determine which of these are best aligned with those ends that humans value.

Cultural Evolution and the Intuitionist Paradigm

Cultural evolution views are a set of views based on the idea that human culture can be usefully thought of as darwinian. Authors such as Joseph Heinrich, Robert Boyd, Peter Richerson, and Alex Mesoudi, all work with a view which I will call Cumulative Cultural Evolution (CCE). The fundamental claim of such views is that “natural selection has shaped our psychology in a manner that generates non-genetic evolutionary processes capable of producing complex cultural adaptations” (Heinrich, 2016). In other words, through the process of biological evolution humans have come to have brains which in groups are capable of constructing cultures, where culture is defined broadly as the set of human ideas, knowledge, practices, and beliefs, and that these cultures are subject to the same sort of logic that is at work in biological evolution. I will argue that if we accept such a view we are faced with serious worries about typical methodology for ethical inquiry. I will go on to propose a method with a better chance at getting around these worries. The argument I will defend is as follows;

- (1) Culture is an evolutionary system influenced by darwinian selection.
- (2) Darwinian selection operates on the basis of fitness in the sense of replicative ability.
- (3) The replicability of a norm or idea in culture is often not dependent on features of an idea or norm that humans typically value.
- (4) The norms and ideas present in culture shape our intuitions.

(5) Therefore, our intuitions are influenced by ideas and norms which are, at least in a significant number of cases, not selected in virtue of features humans typically value.

If this argument establishes the truth of (5) Ethics has a real problem.

Why Think Culture Evolves?

CCE is too large and controversial to be adequately defended here. In addition it seems the wrong sort of thing to be defended by philosophy, instead being a largely empirical matter. As such I rely on the work of others as the actual evidence of culture as an evolutionary system and do not claim the following establishes the truth of this claim.¹ With that being said I do hope that the following serves as enough of an argument for its reasonableness that the reader may feel satisfied in accepting that culture is an evolutionary system for the sake of this paper.

The most straightforward reason to think culture evolves is that we find that it fits with all of Darwin's criteria for an evolutionary system. These criteria, as outlined in Darwin's Origin of Species, are 1) Replication: this is just to say that whatever evolves must make copies of itself. These copies need not be exact, only approximate, and it is in fact not possible to get evolution out of a system which only makes exact copies of itself. This is due to the second criteria, 2) Variation: The copying entities in our system must not all be identical, specifically they cannot all be equal fit.² And finally 3) Competition: the copying entities in our system must not all be able to do equally well.

The first thing to notice in support of CCE is that none of these make mention of anything particular to the biological (Darwin, 1860). While it is true that Darwin was

¹ For more robust defenses, and in depth explanations, of CCE see (Boyd, 1985, 2008, 2018), (Richerson, 1985, 2008), (Heinrich, 2016, 2020), and (Mesoudi, 2011).

² Fit is used here as a biological technical term to be expanded upon later.

speaking of biological entities, nothing explicitly biological appears in these criteria.³ The second point to notice is the remarkable simplicity of these requirements. There are only three necessary features of a system to generate evolution and none of the criteria are extremely complex. Finally, it seems extremely likely that we find all of these criteria in culture.

In culture these three criteria appear differently in some ways than in biology, but despite this they are all present. 1) Replication, ideas in culture certainly seem to replicate in the sense we need. Say I have the idea that it is wrong to eat meat. I tell this to others explaining my reasoning. Not all of them will come to agree with me of course, but some might. Those who agree obviously now hold copies of the idea, and these people may now pass on the idea in some way. Those who come to agree may argue it to others and convince them. Through this the idea that it is wrong to eat meat has replicated, as copies of it have been made, and these copies continue to copy themselves.⁴ 2) Cultural traits doubtlessly vary, people have different religions, opinions on the validity of the ontological argument, beliefs about the best way to make swords and so on. Furthermore, some ideas seem less fit than others. The notion of evolutionary fitness is complex but for now simply consider a boring story. How many of the bland tales of dreams a friend once had can you recall? They were not the sort of thing that stuck around or got copied and they have thus passed out of your mind, and

³ It is worth noting that Darwin would not have known of genes, mutation, or any of the other actual molecular entities at play in biological evolution. These things had not yet been discovered at the time of his writing, and thus Darwin had to be arguing on a broader scale from the logic of systems like those in biology not from the particulars of genetics.

⁴ A common objection here is that the ideas are incapable of copying themselves in the way that genes do. The issue with this objection is that genes do not copy themselves, perhaps the first did but they do not any more, they are copied by other molecules in the cell. Eye color genes do not have in them the machinery to make copies of themselves, they rely on molecules like DNA synthase to copy them. Thus if we think this is no problem for biological evolution it is likewise no problem for CCE.

likely the mind of everyone else as well. 3) Cultural traits also seem to be in competition with each other. One can hardly hold both that the ontological argument establishes the existence of God, and that atheism is true. In a different vein we do not have infinite brains, and thus we cannot hold all cultural traits we encounter in our minds, something has to go. If you agree so far, a cultural evolutionary result of some kind seems virtually unavoidable.

You may still be skeptical that these criteria are all we need to generate an evolutionary process. To motivate this thought, consider the following narrative. Suppose one has some molecule capable of creating copies of itself from raw materials in its environment. This molecule occasionally makes errors when it attempts to make these copies, the logic of natural selection will begin its work. Such a simple molecule will begin making copies of itself. Most of these copies, if it is any good at copying, will be identical to each other and itself, but copies will occasionally be made which bear slight differences. These differences could make the molecule more likely to copy itself, less likely, or keep the likelihood the same. If the changes make this variation more likely to copy itself it will outpace the copying of other varieties around it. If there is a limited number of possible copies in this environment it will begin to outcompete others, becoming a higher and higher proportion of the total.⁵ Over time such a molecule will become more and more complex in how it manages to get itself copied. After billions of generations the possibilities for the resultant entities are immense. With this system we have doubtlessly generated evolution by natural selection. This system is based on molecules, but one is free to replace that with “computer code”, “cultural information” or

⁵ This short narrative is expanded on in *The Selfish Gene* (Dawkins, 2016)

anything else one wishes so long as it keeps all the criteria the same and the result will be the same.⁶

Dawkins points out that “survival of the fittest is really a special case of a more general law, survival of the stable”. Though it is not often emphasized how simple and general Darwin’s insight in the origin of species is I feel it is important to emphasize. Darwin’s contribution is not primarily an explanation for the fossil record as it is too often thought of. Darwin’s primary contribution to human knowledge is the logic of biological systems. This logic’s extreme simplicity and capability of producing out of this simplicity adaptations of extreme complexity is what CCE points out also exists in human cultures. In this light the idea of culture as an evolutionary system does not seem far-fetched at all and is, in my view, a vitally important way to view culture if one hopes to understand it.

Fitness and Replicability

The most common phrase associated with evolution is “survival of the fittest”, but this is misleading. Inclusive fitness in biology, first proposed by W. D. Hamilton, is the most widely accepted model of evolutionary fitness where fitness is meant as a metric of how strongly some genes will be selected for. Inclusive fitness holds that a gene’s fitness is determined by the combination of its effect on the fecundity of its bearer combined with its effects on the fecundity of other copies of the same gene in the population, typically in the form of helping related individuals to reproduce (Hamilton,

⁶ The picture I have explicitly defended is extremely similar to memetics. CCE is not, however, identical to memetics. The differences are largely beyond the scope of this paper, suffice it to say that CCE is not committed to claims like “there are discrete replicating entities in culture”, or a view analogous to the gene’s eye view in biology as memetics is. In addition CCE has a greater emphasis on empirical study of culture than the purely theoretical as compared to memetics. (Boyd, Heinrich, and Richerson, 2008)

1964).⁷ A gene which keeps its bearer alive is, evolutionarily, only as beneficial as it is indirectly helpful in replication.⁸

This is not, however, a feature just of biological evolution, it is rather at the core of the logic of evolutionary systems wherever they appear. It is part of their fundamental logic that they will select for those variants best at replicating themselves. Anything else on which selection may act is causally screened off from actually impacting evolution by replicability⁹, even those features like longevity, speed, strength, and disease resistance of which we often think when considering natural selection. The supremacy of fitness is unintuitive on some level, but it is inherent in the logic of evolutionary systems.

Cultural evolution can also be inferred to operate on the basis of fitness because it too is built on Darwin's evolutionary criteria. Cultural fitness being the ability of cultural traits to get themselves copied, however that may occur. To illustrate this let us imagine a simple system of ten individuals where five have belief A and five have belief B. Those individuals with belief A are in fact correct, while those with belief B are incorrect, suppose even they are incorrect in a way that has meaningful practical detriments to them.¹⁰ Belief B though is better at getting itself replicated, say it prompts those who hold it to evangelize it while belief A does not. Over time, in virtue of its superior replicative ability, belief B will come to be a greater and greater proportion of the ten individuals. This is because replicability in terms of culture means its ability to take up a

⁷ Graphen provides a mathematical argument for fitness optimization in "The Simplest Formal Argument for Fitness Optimization" (Graphen, 2008)

⁸ Studies into the evolution of aging confirms this. (Austad, 1993) Organisms which are unlikely to die of old age anyway, perhaps due to high predation, evolve to age rapidly. This shortens their lifespan, but speeds the rate at which they become capable of sexual reproduction. This is selected for not because it benefits the individual organism, it does not, but rather because it maximizes fecundity.

⁹ For an in depth discussion of screening off in evolutionary selection see "Sober on Brandon on Screening-Off and the Levels of Selection" (Sober, 1992).

¹⁰ I do not intend to get into the topic of what it means to be correct, but I do not take the question as particularly relevant to the case so allow correct to mean whatever definition the reader prefers.

place in human minds, either by displacing a contradictory view or filling a space which was previously empty. Thus trait B will replace trait A in the minds of individuals more often than A will replace B.¹¹ This has occurred regardless of the truth of A or B, or even the usefulness of A or B. Replicability will win in this situation no matter what it is pitted against because replicative ability lies at the core of evolutionary logic.

One may object that those in possession of belief A are liable to begin their own evangelizing in response, which I grant, but this is simply arguing that belief, or belief complex A, if you feel this is too complicated for the effect of one belief, will mutate to increase its fitness. This is no objection to the supremacy of replicability, rather it concedes that the only way to compete with B is to match its replicative ability. One may object further that if belief B is sufficiently bad for those who hold it, say it makes them more likely to be killed in car accidents, then belief A will still eventually win out. If the effect of trait B were strong enough this is true, but we have now denied what we granted for argument, namely that B just is more fit than A. Recall again that fit here is a technical term referring to replicative ability not the colloquial term, but to be fit in the technical sense usually requires things like not immediately killing the host. Fitness then, in the technical sense, is the guiding principle of evolution, cultural and biological. It must be in fact in any system which can be called Darwinian.

Fitness as a Poor Guide to Desirability

The idea of a disconnect between those cultural traits which are fittest evolutionarily, and those which are aligned with human ends is both the most important, and the most difficult to establish part of my argument. First, it is obvious that humans

¹¹ This is nothing but what we allowed for the sake of argument.

do not typically value the replicative fitness of our ideas directly. We may value that our beliefs or norms spread and replicate, but we do not value this replication for itself but for the fact that it spreads beliefs or norms which we value for some other reason.

Imagine someone was arguing that you ought to take on a different belief in some matter. This person does not try to convince you by citing its usefulness, truth, or ability to produce pleasure. Instead of this they cite replicative capacity. They may say “No it will not help you do anything more effectively and it is untrue, it will not make you happy, or do anything else you value, but other people are extremely likely to believe it when you tell them this completely useless and untrue idea.” It is not of course impossible that someone truly did value this feature of a belief above all else, but they are not then like most people. To the vast majority replicative ability is only instrumentally desirable in a belief, unlike features like truth and usefulness.¹²

I do face a problem at the outset. While it may be the case that the evolutionary system we understand best, that being biological evolution, is driven by inclusive fitness, it seems to have generated a world filled with organisms which are fast, strong, clever, with powerful immune systems, and incredible adaptations. Thus while it may be the case that only replication drives evolution, through indirect effects it appears to generate a huge number of other features which we may more typically think of as beneficial. Why then should we not hold the same is true of culture? That while traits are only directly selected in terms of fitness the effect of other features like usefulness for example, will lead to systems which are well aligned with human ends anyway.¹³

¹² This is not to say that some beliefs do not rely on their replicative ability to be useful. Many norms and ideas need to be largely accepted and spreadable to be useful at all. But still in these cases what we value is the impact of these beliefs and their fecundity is merely a requirement for attaining that impact.

¹³ Eubank makes a similar objection to Street’s evolutionary debunking argument. Eubank’s mistake is that in arguing that evolutionary aims are “at least somewhat good” (Eubank, 2015), he has ignored that reproductive success, from a human perspective, is not good in and of itself, certainly not for culture, and

Some element of this is undeniable. Just as a dead animal cannot reproduce, a dead person cannot spread their ideas.¹⁴ Thus naturally ideas that lead to the death of those who believe them tend to do poorly.¹⁵ My claim is not that CCE will not lead to the evolution of cultures which are somewhat good at many things which humans hold to be important. It is of course the main purpose of CCE models of human culture to explain the adaptive elements of culture and how they come to be in evolutionary terms. With that being said, the effects of the supremacy of fitness are huge in biology, and we should expect, in culture. Examples are numerous, including sexual selection, selfish genetic elements, cancer, and evolutionary short sightedness. In all of these cases fitness as a drive leads to suboptimal or explicitly harmful traits being selected for, where suboptimal and harmful are conceived of from the perspective of the organism and its desires not evolutionary fitness.

Selfish genetic elements serve as a gold standard of replication winning out over all other considerations. These are cases such as “segregation distorter” genes in fruit flies. These change the chances of a gene being in a particular reproductive cell from 50/50 to favoring one allele. This means that if the effect is pronounced enough it does not matter how negatively the gene impacts the organism in other ways. Such a gene, with a powerful enough distorting impact, could be selected for within a population even

likely not for biology either. This means that we still generate a worry that these processes are not aimed at something which is a human end, and thus the problem remains even if often human ends are fulfilled along the way.

¹⁴ Of course your ideas may replicate after you die, but you may not spread them anymore, just as a gene may still be passed on even if the individual in which it mutated has died.

¹⁵ It is possible in theory for causing the death of an individual to actually help an idea though. Consider the effect that martyrs have on movements which they die for. This often not only does not harm the idea they died for but rather solidifies it in the minds of those who already believe it and helps to spread it to new individuals.

to the point where it made the entire population go extinct.¹⁶ Genes like this are so effective at spreading through populations despite negatively impacting their bearer biologists have been developing “gene drives” which would weaponize them as a kind of genetic pesticide (Price et. al. 2019), (James et. al. 2018). These drives would spread a harmful gene through a population by distorting the likelihood that it ends up in reproductive cells. It is hoped that this could be used on various nuisance species such as invasive species or parasites.

There may be reason to think that factors like this are more present in culture than they are in biology. One such reason is that there are a great number of cultural traits whose negative impacts when they occur are diffused across everyone rather than just their bearers. Such traits will not create a replicative disadvantage because they keep all traits on an even relative playing field, a falling tide that sinks all ships. Michael Hannon and Jeroen de Ridder have argued that political beliefs serve many important functions like community cohesion and providing purposiveness to people, and that many of these benefits are present independent of the truth or falsehood of any given set of beliefs (Hannon, and Jeroen de Ridder, 2021), (Hannon, 2019). This does not, however, mean that there are not negative consequences to false political belief, only that these consequences are masked from selection. False political belief obviously has a number of negative consequences, namely that if it is popular enough it leads to bad action by the government it puts in place. These consequences though are felt by whole societies, or worst of all only parts of the population other than those who hold these beliefs. In either case selection acts against the ends valued by humans.

¹⁶ This is one of a number of avenues for group level selection which is not reducible to relatedness and its effects on inclusive fitness. (Oksha, 2016), (Vbra, and Gould, 1986)

Genetic pleiotropy provides another avenue for suboptimal outcomes in biological evolution, and may well have an analog in culture. Pleiotropy occurs when a gene has more than one phenotypic effect. For evolutionary purposes the most interesting cases are those pleiotropic cases in which one effect is positive and the other is negative. We find in such cases that negative outcomes of the pleiotropic gene can come to represent a greater portion of the phenotypes in the population so long as selection for the positive outcome is strong enough. So long as having the gene is overall more fit than not having it it will be selected for. Pleiotropy may also be seen in Hannon and De Ridder's ideas of political belief. We may see selection for false political belief as because such beliefs hurt everyone rather than just those who hold them, as pleiotropic, or as some combination of the two. The pleiotropic explanation would be that these beliefs serve to promote social cohesion and harm society in other ways. Since it is the same trait causing both though, selection for social cohesion will lead to selection for negative societal impacts as well. It seems then most accurate to see the phenomena they articulate as a combination of these two evolutionary factors. Likely many cultural traits are pleiotropic, and in many of those cases we will find such combined positive and negative effects.

Other such situations are created by societal power dynamics and their impact on the spread of cultural traits. Cailin O'Connor uses evolutionary game theory modeling to explore the ways in which marginalization compounds to create extremely unbalanced outcomes even when there is no benefit in terms of societal cohesion, productivity, or any other end typically valued (O'Connor, 2019). Consider the situation of the United States culture of the 1840s; factors in this culture, namely the enslavement

of black Americans, and marginalization of women as well as a number of other groups, made it the case that these groups were systematically barred from impacting the fitness of a cultural trait. Imagine the spread in modern America of the idea “people with brown hair are inherently superior,” this idea will have trouble getting off the ground for a number of reasons, but one of the main ones is that people who do not have brown hair act as checks on this sort of idea spreading. In the case of 1840s America though the idea that “white men are inherently superior” was able to replicate and remain in large part because those people who would best serve to check its spread, namely women and non white people, were unable to have the impact on culture and the spread of traits in it required to have this sort of effect. In the 1840s white men could easily publish their views in a newspaper, or travel around spreading their ideas, they were also perceived as authoritative in a way that women and non white people were not.¹⁷ All of these factors were barred from the reach of women and people of other races in a way that caused the fitness of cultural traits to be disproportionately impacted by the powerful subset of a culture rather than the culture as a whole. The strongest mechanisms of this may be gone, such as official laws barring black Americans from holding certain roles of influence, but there are still mechanisms in culture which have subtler versions of the same effect. One such mechanism is the way in which grammar and dialect serve to bar people from certain kinds of public discourse. Individuals who grow up speaking dialects which are not dominant, or who grow up without access to the same level of formal grammar education are barred from the public discourse in a more subtle way than law when others refuse to consider their perspective for purely

¹⁷ Not all white men could do this of course, many men would have been unable to do so, but the point here is the disparity between groups.

linguistic reasons. Mechanisms like this serve to continue the fitness disadvantage of any idea originating from marginalized groups.

Another way in which we find evolutionary outcomes to be not only misaligned with human interests, but also suboptimal even in terms of replication, are the constraints on evolutionary systems. Evolutionary systems are short sighted for one. Selection acts on current replicative ability, and cannot respond to far future impacts. Recall our evolutionary narrative, if one of the mutations which made a molecule better at replicating, and thus led to it becoming a larger and larger portion of the population, also caused an effect which would eventually lead to the system being unable to support any mutant at all, what would occur? This mutant would still be selected for is the answer, right up to the point where it made the system uninhabitable. There is simply no method within the system for evolution to select a worse replicator now for some future advantage.

Evolution is also historically dependent in two ways. The first is that selection only works on variants that happen to occur, no selection takes place on merely possible variants until they somehow become actual, and the second is that the fitness of any given trait is in large part a feature of its interaction with other existent traits. This first mode of historical dependence is simple, but important to keep in mind, those norms and ideas which no one has yet thought of may well be more fit than many we currently have, but until they are thought of they cannot be selected.

The second kind of historical dependence is more complex. This kind of historical dependence arises when one trait requires others to be functional and beneficial. Take the example of flight in birds. Birds have a combination of traits which

allow them to fly, hollow bones, powerful upper bodies, specialized feathers, lungs capable of breathing at high altitudes. Traits like hollow bones have been selected in birds because they are beneficial to them in allowing for better flight, but the benefit of this trait is highly dependent on the existence of all the others. In an organism without wings, powerful upper bodies, and specialized lungs hollow bones are less than useless, they are harmful. For an organism to evolve flight in the way birds have mutations need to arise in a particular order such that each mutation will be beneficial when it does arise.

Culture will be the same and so we should expect to find cases in which it would be beneficial to have some cultural trait in its entirety which will not be selected for due to a lack of the necessary background set of traits.¹⁸ Say some culture would benefit if the belief were widespread “if you steal from your neighbor God will punish you”. It is easy to see how this idea may help group cohesion if it were to arise, but it is also clear that it relies on some preexisting ideas surrounding God, their inclination toward punishment, and their ability to see if you steal. Joseph Heinrich puts a lot of emphasis on the importance of how a culture conceived of its God or gods. Heinrich argues that bigger Gods pave the way for ideas like my hypothetical belief about stealing which have large impacts on the fitness of a particular culture (Heinrich, 2020). Changes like this require a certain background to be in place first though, and this makes them less likely to occur. Evolution is less likely to generate a trait the more hurdles it has to overcome to generate said trait.

¹⁸ Alex Mesoudi argues that there are elements of cultural evolution which are Lamarckian rather than Darwinian, and in some way this may lessen or change historical constraints, but likely not eliminate them. (Mesoudi, 2011)

It is not my claim that culture is completely ill adapted to human ends. Even though indirectly culture has doubtlessly generated norms and ideas which are well suited to human ends, we have good reason to believe that there are large elements of culture which are not. This is due both to the singular drive of evolutionary systems, as well as constraints on evolutionary systems. With these features understood we should expect to find such disconnects commonly, and thus the traits that have evolved are largely disconnected from human ends.

I chose here to focus on general ways in which evolutionary processes generate undesirable ends rather than specific historical cases in which I think this has occurred. This is for two reasons. The first is I wish to avoid giving the sense that there are just a few isolated cases in which this has occurred, rather I think it is pervasive, and that it will continue to occur in the future. Secondly I doubt that we have good enough evidence in most cases to confidently state which traits are generated by any particular method. Though Heinrich has attempted to do this with cultural traits like the avoidance of cousin marriage or certain fairness norms, I am suspicious that there is insufficient evidence to make such claims (Heinrich, 2020).

Cultural Traits and Intuition

At some level everyone accepts that many intuitions are driven by culture. If someone is raised to think it is rude not to shake hands for example everyone will agree that their normative intuitions on this matter are simply a product of this cultural indoctrination. With that being said the degree to which this is the case is a topic of significant disagreement. Cases of rudeness or mere custom are not controversial, but

issues of hard hitting moral intuitions are. On one end of this spectrum is the belief that humans are in some way inherently branded with moral intuitions, by God or nature, and on the other end the view that almost all of what we are is programming which could have been completely different (Dennett, 1991). There are of course a huge variety of positions in between these two poles. CCE theorists tend to occupy one of these intermediate positions leaning toward the Dennett view that we are what we are programmed to be.

CCE cannot operate on the most hardline pre-programming views. The reason for this is simple, to propose an evolutionary mechanism involving adaptation as how morals and culture at large come to be requires that morals can be responsive to environmental conditions and the other ideas and norms present within their culture. If our moral intuitions are completely hard wired there would be absolutely no room for such responsiveness. Thankfully for CCE theorists there is ample evidence that whatever our biology may incline us toward intuitions are malleable.

The idea that our culture shapes our intuitions seems uncontroversial. We can find countless examples of norms shaping our intuitions in ways which are contingent. Incest provides an easy such example. For much of history, and for many cultures even in the modern, cousin marriage was/is both accepted and common. Norms in modern western cultures against such marriages have roots which can be tied to medieval Christian church doctrine rather than a biological realization of the causes of genetic disease as many assume (Heinrich, 2021). These norms have shifted intuition surrounding cousin marriage in many cultures from a state of acceptance and normality to something disgusting and immoral. We find similar shifts occur with a huge number of

intuitions. For other examples one may look at the perceived importance of freedom of speech, the extent of duties younger generations have to older ones, the permissibility of governmental execution, and many many others. In all of these cases we find that our intuitions have been shaped by the norms and ideas present in us and in our culture.

Ethical Methodology and CCE

Ethics has what I will call an “Intuitionist Paradigm”. What I mean is that the central methodology of most ethics lies in attempting to drive intuition through examples and thought experiments such that we can try to unify our intuitions under some framework of ethics. This paradigm runs into a problem though once the connection between our intuitions and our ends is damaged. As I have attempted to show, due to evolutionary considerations we cannot draw a clean line between ends which humans value and the intuitions that we clash together. By clashing together these culturally generated intuitions we are then perpetuating the disconnect generated by evolutionary considerations between our intuitions and our ends.

Take the popular ethical thought experiment of the trolley problem. A typical instance of the trolley problem is as follows: You are the driver of a trolley which will kill five workmen if it continues on its path. You have the ability to switch this trolley to an alternate path, but this will still kill one workman. Is it permissible to switch the path of the trolley? We are then invited to engage by offering our own intuitions on this problem, or to provide examples of problems similar in relevant ways, yet which generate in us the opposite intuition (Foot, 1967), (Thompson, 1985).¹⁹

¹⁹ This sort of methodology is pervasive in ethics, it is not limited to any one metaethical framework. This methodology can be found in other arguments like Singer’s case of a drowning child in a pond, Norcross’s

This sort of approach to ethics, the presentation of a thought experiment, and the proposal of other similar thought experiments to drive intuition, is present in a huge amount of ethics literature. The problem with this approach is that these intuitions are informed by our current cultural and normative framework. They are thus generated by an evolutionary process which is not directed toward human ends. This process of providing our current intuitions is merely the perpetuation of those intuitions which happen to have occurred in our particular culture due to its particular evolutionary history. Such a method merely affirms some normative element of culture and it is not reliable for generating normative frameworks which best serve human interests.

We need a different methodology, and there is nowhere better to look than biology. Biologists have understood evolutionary systems and their limitations for many years, and thus have developed effective methodologies both for discovering and actualizing new possibilities.

Synthetic Biology and Theoretical Morphospaces

A theoretical morphospace is a tool used in biology to examine the possibilities for life rather than simply what we have in front of us.²⁰ A theoretical morphospace is often created using mathematical functions relating to things like shell curvature, and diameter of shell opening. These are particularly useful for exploring the limits of life. One can compare the theoretical morphospace to the actually observed morphology in order to see what limitations are imposed on morphology beyond the mathematical.

case of a man torturing dogs so that he can taste chocolate and many others. (Singer, 1972), (Norcross, 2004)

²⁰ Strictly speaking a theoretical morphospace only refers to a subset of what I will be talking about, but analogous techniques exist for molecular biology as well as morphology.

Figure 1 is a theoretical morphospace for ammonoid shell shape (McGhee, 2006)²¹. The

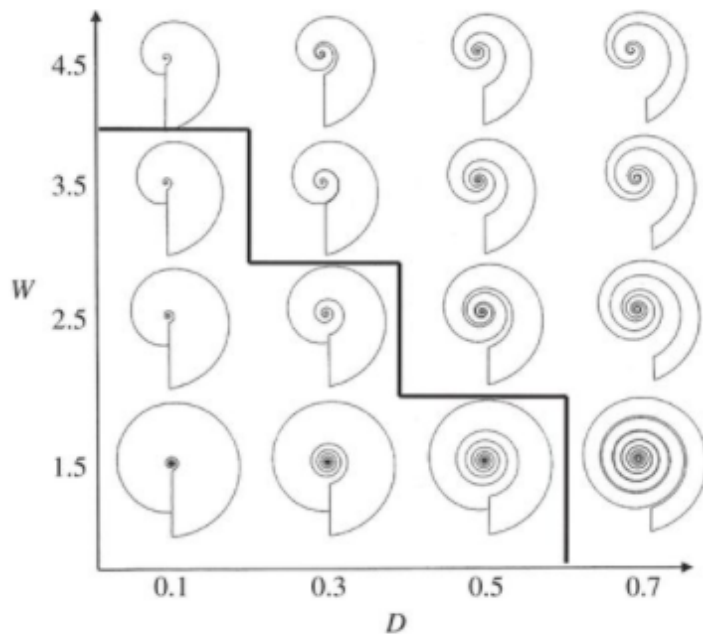


Figure 1

area below and to the left of the line represents the mathematically possible shells which are actually found in nature while all other areas are possible but nonetheless do not occur. By using this diagram we can more usefully ask the question “Why did the ammonoids evolve some geometrically possible shell forms

but not others?” (McGhee, 2015) The answer lies in the fact that the nonexistent shell shapes almost all have a gap in the middle of them which is not present in the shell shapes we find in nature. This gap would create water trapping vortexes when the animal attempted to swim and thus limit its speed. Because of this, few ammonoids have evolved to fill the morphospace of shells with gaps in the middle.

The general rule that ammonoid shells do not have gaps in them has an exception of *Spirula Spirula*, a species which has a shell with large gaps in the middle. *S. Spirula*’s shell is able to inhabit a generally forbidden part of the morphospace because in contrast to most ammonoids its shell is internal, and thus the gaps do not create hydrodynamic problems. While in all others the shell shape determines how hydrodynamic the organism is, *S. Spirula*’s other traits, having an internal shell, mean that it can be hydrodynamic even with shell gaps. In short, theoretical morphospaces

²¹ Ammonoids are a variety of marine mollusks with a coiled shell. (Saunders et. al., 2004)

are useful ways to learn by examining unoccupied yet possible positions for life to take, through doing so we can often learn about why the life we do see is the way it is. It is also important to note that as in the case of *S. Spirulina* possibilities can often be opened which were once closed due to the interaction between multiple traits, such as the interaction between shell gaps and having an internal shell. This is a significant point when making an analogy between theoretical morphospaces in biology and theoretical normative spaces in ethics. What options look open and adaptive are not determined in a vacuum, rather they exist largely as the product of interactions between other traits.

Analogous concepts to theoretical morphospace are often used in the field of synthetic biology, a branch of biology that focuses on constructing new genetic and molecular pathways rather than understanding or using those already found in nature. This analogous concept is called a “metabolic design space” (Wurtzel et. al., 2019) and is created by analyzing possible molecular reactions rather than possible geometric forms. Synthetic biology uses this to highlight pathways which are possible yet unexplored by an organism in order to examine if there are, in these possible options, pathways which fit their desires better than those developed by evolution. From here the task of the synthetic biologist is to design systems which fit better with their needs than anything generated by evolution. This can be done by creating an organism with traits which are unfit, yet useful for some reason or, introducing a gene, or set of genes, not available to evolution due to historical constraints. In short, the task of the synthetic biologist is the subversion of evolution for their own ends. Through doing so they are able to create organisms which would not otherwise be possible, which fit with their needs better than anything they could find in nature.

Beyond an Intuitionist Paradigm

In order to avoid the aforementioned pitfalls of the Intuitionist Paradigm we can use the concept of a theoretical morphospace. The idea of theoretical morphospaces is to allow biologists to explore gaps in the outcomes of selection, and in doing so learn something about not only what has been selected for, but also what has not, and why this is the case. In ethics we could use a similar method, constructing theoretical normative spaces, in order to explore not just those norms that evolution has produced, but also what it has not produced. Furthermore we could act as the equivalent of synthetic biologists, selecting among these theoretical normative spaces for those that are best aligned with human ends.

Just as with theoretical morphospaces, we will find that many theoretical ethical spaces are unoccupied for good reason. Perhaps they conflict with something too deeply rooted in human nature, they produce societies which are unable to operate in the world, or for many other reasons.²² With this being said we will also find many which are possible even if not actual. We can then select among these possible options for those normative frameworks which best serve the ends we value, much in the same way that the synthetic biologist selects among possible metabolic pathways for one to actualize. Through such a method we may avoid the pitfalls of the Intuitionist Paradigm, and thus make progress towards a normative framework which serves human ends rather than evolutionary ones.

²² One example here is a normative framework that denies parents the ability to give preference to their own children above strangers. It is doubtful that this could be stable as a social norm because humans have systems too deeply rooted in our biology which incline us away from this sort of norm.

There is an obvious problem for my view which emerges at this point. If it is the case that humans are the product of two evolutionary processes, cultural and biological, such that our capacities, concepts, ideas, and beliefs were formed in their entirety by these processes, what ends do we have that are not the ends of these processes?²³ One answer here is to appeal to some external standard of the good, to God, or to some objective standard beyond humans toward which we could aim. This is not my view however, we do not need a standard upheld by God or the universe beyond humanity in order to embark on this sort of project. In addition, this answer would lead to serious evolutionary debunking worries, making it the case that even if such a standard existed we may have no access to it (Street, 2009).²⁴

Another answer lies in the raw phenomenology of pleasure, and human intersubjective agreement on this phenomenology. Biological evolution has given us pleasure and various circumstances under which we feel it, as well as pain.²⁵ The situations in which it is activated are nothing but the product of biological evolution, pleasure as a way to drive us to do what will be evolutionarily beneficial, but it is not perfect. To most sexually reproducing organisms, for quite sensible evolutionary reasons, sex is pleasurable. The reason this would be selected for is obvious, but the outcome in humans is an organism that enjoys sex when it results in offspring, AND when wearing a condom, after a vasectomy, or on hormonal birth control. This feature of us is created by biological evolution, but it has resulted in us deriving pleasure from a host of things which are not evolutionarily fit in any way. This is similar to Gould's notion

²³ Dennett points out that we cannot separate ourselves from these processes. (Dennett, 1991)

²⁴ I respond to realist worries in more depth later.

²⁵ I speak primarily about pleasure, but there are analogous points to be made about our aversion to pain on all accounts.

of an evolutionary spandrel (Gould, 1979). Spandrels are an accidental outcome of an evolutionary process which occurs as the result of something which has been selected for. The enjoyment of sex without reproduction is a spandrel, created by a system present to incline us to have sex. Though evolution is not moved by pleasure or pain, it has generated us as organisms which are. This feature of us is, furthermore, too fundamental to reasonably change. As a result of this we have an end, namely pleasure, which we do not need to suppose exists or is created by anything external to either evolutionary processes, but which generates human ends that are not aligned, at least not directly, with the ends of either evolutionary dynamic which created us.²⁶

I expect some will object that the phenomenology of pleasure is not a criterion as free from cultural influence as I have argued. It is after all the case that in many cultures the value of pleasure as an end has varied. This objection though misses my point in citing pleasure. I do not argue that people take pleasure to be their end, rather I argue that pleasure cannot help but be good phenomenologically to those who experience it and pain bad. One could argue that this is an effect of culture, but I doubt any seriously would. For one, animals with no culture are responsive to pleasure and pain, and babies before they obtain any culture from those around them are as well. It is not enough to argue that the idea of holding pleasure as an end is cultural, this I do not deny, but to object to this criteria one must argue that the positive phenomenology of pleasure itself is cultural. This is not to be confused with the claim that what gives pleasure is cultural either. It is true that different cultures will take different things to be pleasurable, think of

²⁶ This answer brings me very close to arguing straightforwardly for utilitarianism. I expand upon my view's relationship to Utilitarian ethics later, but suffice it to say that I take the construction of normative frameworks as primary, and the use of pleasure is in selecting among these not in guiding individual action.

differences in artistic preference, but again this is not pleasure itself but what generates it.

There remains the question of how one can select between normative frameworks for one which is “better” while standing outside of any normative framework. I have tried to motivate the idea that we can use pleasure as an extra-cultural criteria, but it is not clear that this allows us to make rational choices about what is “better” without making them within a normative framework.²⁷ One possible answer is to say that we do not in fact step fully out of our normative framework. Within our normative framework we may come to the conclusion that we should treat the phenomenology of pleasure as a deciding factor between new normative frameworks. We then retain part of our normative framework when deciding between possibilities, namely the idea that one ought to decide on the basis of pleasure, then we make our decision.²⁸

An example of a better methodology is due here to illustrate what I mean. One such case is found in Mill’s defense of freedom of speech. Mill points out that even in his time people did have the intuition that freedom of speech was a necessary right, but he did not take this as an argument for freedom of speech in absence of others (Mill, 1859). Mill’s actual substantive argument does not rest on intuition regarding freedom of speech, but rather on imagining the consequences of societies which do and do not treat it as a right. In effect Mill performs the task of a synthetic biologist on some small

²⁷ Kuhn faces a similar dilemma in his philosophy of science, and claims that the choice to change scientific paradigms is simply irrational and that this must be accepted, though he later backtracks this claim. (Kuhn, 2015)

²⁸ I suspect stepping completely outside of a cultural and normative framework is simply impossible for animals like us. Much of the point of CCE is to show that we are a cultural animal to our very core. It is difficult to even understand what it would mean for humans to make decisions completely divorced from a cultural context. As such I think that the ideal is to be as divorced as possible from its influence rather than completely unaffected by it.

scale, not asking what our intuitions are regarding freedom of speech, but rather what would be the consequences of some normative attitude or another.

This methodology does not have us ask “what are our normative intuitions regarding X?” Rather it asks “what impact would adopting norm X, or norm complex X, into our normative framework have on the ends which humans value?” Such a method thus has the potential to escape simply affirming culturally produced intuitions, and may instead move beyond these toward a normative framework which serves human ends. Thus, we may be able to construct normative frameworks under which what is intuitive is not simply whatever the evolution of culture happens to have produced, but rather what serves human ends.

On a smaller scale we can also perform a more careful analysis of particular claims based on intuition with these considerations in mind. Unless our goal is something like ethics as a type of anthropology, finding out what a culture already values, and we rather want ethics to deal with what humans ought to value we cannot simply appeal to intuition. To do so would run headfirst into the is ought distinction and attempt to simply ignore it. We can instead ask of each intuition to which we appeal “What is the most likely case for why this intuition is present and should I care in this case?”

To demonstrate an application of this method take Lawrecne Davis’ argument for why the principle R, “There is some intrinsic value in the suffering of the guilty”, is likely true. Davis argues R is ““very likely” [true] on the grounds (a) that there is no convincing argument against it, and (b) that inclination to believe it seems very widespread among the people whose moral intuitions constitute the main data we have for settling

questions of value.” (Davis 1972). This argument is explicitly intuitionist, and that poses a devastating problem for it. I can agree that many people have the intuition that R is true, but once the question is asked “why do we have this intuition and does that reason give us reason to care about it” Davis’ argument breaks down.

The question of why this intuition exists is presumably answerable, according to my joint evolutionary framework, by answering that it encourages punishment, and that punishment as a practice has benefits to the cultures which practice it.²⁹ The benefit is obvious, it prevents norm violation, a culture which simply allows all norm violations to occur has no norms at all in some sense.³⁰ At first glance one may be inclined to think that this teleology supports Davis’ claim, or some version of it. The intuition in question has been vindicated because it serves to drive us to take some action, namely punishment, which has desirable consequences. There are big problems though with this claim. First of all Davis and others intend this argument to support retributivist justice specifically in cases where there is no consequentialist justification (Davis 1972) (Berman 2008).³¹ The teleology of this intuition provides no reason to think that inflicting suffering on those who deserve it is good in these cases because when examined we find we have no reason to value the intuition except the consequences it has in general. In addition once a robust legal system is established such an intuition is unnecessary.

²⁹ It is possible that this is not the correct story for this particular intuition, but I am simply proposing what seems the most likely teleology of this intuition. A different explanation of the origins of punishment intuitions though will still result in the same kind of problems even if they are manifested slightly differently.

³⁰ This becomes clearer if we explicitly treat very minor social events as a form of punishment. When someone fails to shake hands upon meeting a new person no one puts them in prison, but the person whose hand they failed to shake refusing to interact with them is also a form of punishment. If there are absolutely no consequences for failing to perform an action it is merely a statistical norm not a cultural norm because cost of violation is what it means for a practice to be normative.

³¹ There is little purpose to arguments which merely establish that punishment is necessary as virtually everyone can see this is the case.

We can simply decide to punish people for certain infractions because we recognize some mechanism of punishment is necessary to any normative framework without giving in to the idea that the suffering it causes is good in itself. We can do so because we have recognized the reason we have an intuition that it is good in itself and that we can get all the benefits which generate such an intuition without the negatives by rejecting that the suffering of the guilty is good in itself. I do not argue that this conclusion is intuitive, I grant to Davis that retributivist claims are intuitive, but once understood I reject the idea that we should care how intuitive they are in this case.

Davis responds to worries about the origins of this intuition by claiming that it is a problem for all intuitions, and that “Until someone provides better reason for picking and choosing among our apparently deeply felt moral convictions, the case for (R) seems as solid as the case for any number of principles enjoying greater popularity at this date.” (Davis 1972). It is my hope that my proposal does exactly this. It allows us to do something more than catalog and follow our intuitions, and a way to do something else. We can pick and choose between our intuitions because we can come to understand why those intuitions are there, we can generate goals which stand apart from these intuitions, and we can decide which intuitions and norms serve those goals and vindicate only those.

Many cultural evolutionary theorists are skeptical that the sort of project I propose for ethics is possible. Joseph Heinrich in particular points out that “humans are bad at intentionally designing social institutions” (Heinrich, 2016). Though Heinrich is hopeful that we may get better as we better understand humans and culture, he still affirms that we should attempt to harness evolution rather than subvert it. If Heinrich and others are

right about this, and the sort of project I propose is not the sort to which humans are well suited, we find ourselves in a very bad position. We have all around us norms and intuitions which are created by a process not directed at our ends yet even when we recognize this we cannot subvert it.

I do not think that the situation is as bad for synthetic culture as Heinrich does. For one, synthetic biology has faced many similar criticisms, yet it has made remarkable progress in recent years. This is not to say that it is without difficulty, far from it, but synthetic biologists have been able to do useful, functional, work regardless of the immense challenges of their field. I suspect Heinrich has in mind a much more all encompassing sort of cultural engineering than I am arguing for. I do not think that humans have the knowledge to fully restructure society, for example, molding it to our needs from the ground up. That sort of project is almost certainly beyond us, but there is still progress, moderate and incremental, to be made by synthetic normative projects which focus on narrower portions of culture such as “ought there be a right to freedom of speech” as Mill considers.

It should be made clear that what I am not suggesting is some kind of massed societal experiment in which we force groups of people to live according to some set of norms we have crafted and test the outcome. I am not suggesting this method for many reasons, but perhaps the main one is that it would be disastrous. If the work of authors like Heinrich and Boyd shows us anything it is that we are radically shaped by the culture we are a part of. This shaping is, in fact, physically manifested in our brains once it has occurred (Heinrich, 2020). Because of this we cannot simply place people into radically different normative frameworks and expect it to work as if they had developed

in these normative frameworks from birth. In addition it is usually unwise to take a complex system and attempt to improve it by changing everything at once. This method does not work in synthetic biology and would not work with cultures either. What I am suggesting remains theoretical, and in the work of philosophers, not in some kind of large scale human experimentation.

Utilitarianism

A natural question is “is this just an argument for utilitarianism.” I concede that the foundations of my view for a future of ethics are utilitarian. As mentioned, if I am correct about the faults of the intuitionist paradigm then we need something divorced from cultural evolutionary ends which can act as our foundation for ethics. This, I think, can only be the phenomenology of pleasure, because while everything about us, in my view, is generated by an evolutionary process, pleasure seems like an unavoidable end for beings like us. In so far as I think the ultimate goal of ethics is the construction of normative frameworks which maximize pleasure, I am a utilitarian.

Though my view is in some sense utilitarian, its focus is importantly different from most utilitarian accounts. The primary difference is that I wish to focus on the construction of normative frameworks, not on individual action. This difference in focus is driven by taking seriously the claims of CCE. Taking CCE seriously does not just undermine intuitionist ethics, it also has implications for what kind of ethics can even work. CCE contests that humans are not successful because we are good at solving problems on an individual level, but because we are capable of using culture as a tool to help us work together in groups. Humans are a cultural animal, evolved not to calculate

what we ought to do in a particular situation, but rather to generate cultures as a group which serve as a good enough guide for action to get by. Because of this, individualist utilitarianism seems at best unrealistic and at worst impossible as an actual guide in the world.

Culture serves as our map to the world, and to proper action within it. While we may be able to argue what particular actions maximize utility, humans are evolved to use culture to make their decisions. Because of this a focus on constructing normative frameworks within culture rather than arguments about individual decisions is a kind of ethics more aligned with how humans actually operate.

Because of the shifted focus of my view many of the common objections to utilitarianism are simply inapplicable. Two common objections to utilitarian metaethics are counterintuitive objections, and demandingness. Both of these objections fail when raised against my view either because of the manner in which I argue for my conclusion, or because of the shift in focus from more typical utilitarianism.

What I am calling counterintuitive objections are the class of objections to utilitarianism which posit a thought experiment in which the utilitarian answer fails to track our intuitions of the right thing to do. Take the case of the surgeon with 5 patients waiting for organs. Two are waiting for a lung each, one for a heart, one for a kidney, and one for a liver. The doctor knows that they cannot find their patients new organs before they die, but he also knows that they have another completely healthy patient who is a match for all of them. Should the doctor kill one patient to save the other five? One can nitpick this thought experiment indefinitely, but it does seem hard to deny on the face of it that utilitarianism implies the doctor ought to kill their healthy patient, and

my intuition says that that would be monstrous. This objection is, however, completely inapplicable to my position. Firstly it is based on what our intuitions claim about what one ought to do, intuitions I have claimed are produced in such a way that we ought to discard them. Because of this I am free to respond “I agree my position fails to track our ethical intuitions, so much the worse for our ethical intuitions.”

Furthermore, I am interested in the task of constructing normative frameworks which maximize pleasure, not individual decisions in ethical matters. The difference as I see it here is that while it may be hard to argue against killing the one to save five if one has an individual choice centered on utilitarianism, it is easy to argue that a normative framework in which this was expected would be worse overall. Trust, especially in those in positions of medical authority, is a huge overall benefit to public health. A normative framework that allows for this sort of action seems fundamentally at odds with this trust being built and for this reason or reasons like it I reject that I am committed to claiming that doctors ought to act in this way. In the way that Mill argues we ought to value free speech because those societies that do so will have more utility than those which do not, I would argue that societies which maintain strong norms of trust between medical professionals and their patients will have more utility and thus society ought to venerate this trust. This is not acquiescing to the intuitionist pull though, I am not moved here by the fact that allowing a doctor to act in this way is intuitively bad, but rather by what we know about medicine and trust.³²

³² It may be argued that despite myself I am moved by intuition here. This may indeed be correct, but I do not know my motives which are not conscious to me and I feel I have given a strong non intuition based reason in either case. This reason can stand on its own regardless of what my motivations in fact are and thus I do not think there is a problem.

Another common objection to utilitarianism is that it is too demanding. This objection contends that the demands placed on us by utilitarian ethics are so absurdly difficult to follow that we ought to reject the view because it is too demanding to be our theory of ethics.

I suspect that this objection fails even when leveled against more typical individualist utilitarianism. It seems to me unsurprising that being ethically perfect would be demanding, so demanding as to be functionally impossible for beings like us.³³ Regardless of this objection's effectiveness against other views I think it fails against mine. My view involves the construction of frameworks which will in turn drive our intuitions in particular cases. Firstly any normative framework we construct must interact with facts about the world. It may be that a framework including "be maximally charitable at all times" if universally followed would be great for utility, but it is doubtful that anyone could actually follow such a framework. This is the difference between my view and rule utilitarianism. I do not hold that a framework constructed as if humans are pure framework following machines is desirable because I am interested in ethics that may actually have desirable effects in the world. As a result, demandingness worries may be applied to a particular framework someone proposes, for example, "It would be too demanding on governments to maintain X level of free speech!" and we may then ask if this is really accurate, but if it is we must simply construct a less demanding framework. In so far as my view generates frameworks too demanding to be followed, it was mistaken in generating those frameworks rather than other less demanding ones.

³³ By beings like us I mean animals, evolved to survive and in a certain sense to do so selfishly. We are not ideally suited to perfect altruism.

My view holds that we should generate frameworks which when accepted and applied in a manner similar to how we apply our current frameworks will have the best outcomes in terms of utility. Applied in a manner similar to how we apply our current frameworks here should be understood to include that we apply it inconsistently, that we are receptive to certain exceptions, that some people will always have their own separate frameworks and so on. With this in mind my general view cannot be called too demanding as a whole, because these frameworks need not be any particular level of demandingness. They could be more demanding than other frameworks, less demanding, or exactly the same. This is not to say that I think it would always be a flaw of a theory to be more demanding than the frameworks in which we currently live, but certainly any framework so demanding as to be unfollowable by humans is not a framework which when applied in the manner we apply our current frameworks will be effective at maximizing utility.

Realist Objections

I expect the most common objections from philosophers will be what I will classify as “realist objections”. These are those objections that argue our ethical intuitions are in some way generated by moral truths, whether this be in the form of natural law, Divine Commands, or another theory of realist morality. In either case these objections go as follows, “Regardless of how the particulars of culture develop there exist, in some form or another, real ethical truths of the universe. It is these that are the target of our ethical

thought, and it is their discovery that must occupy ethics, not the construction of useful normative frameworks.”

There are a number of issues with this sort of response, but I will argue that there is at least one defensible version of a realist objection, albeit with major downsides. The major issue with this sort of objection is that I do not make any claims about the metaphysics of moral truths. Though it is likely that my anti-realism is implicit in what I do say, it is not actually a component of my argument. My argument rests instead on a combination of claims about how cultures, both on a large scale and the smaller components within existent cultures, develop, and how this feeds into our moral intuitions. This picture stands independently of realist or anti-realist claims about the metaphysics of ethical truths. What I mean by this is as follows; Say I grant in full that there are real ethical truths which exist in the universe independent of human agreement or knowledge. These truths do not impact my argument in any way. This is because if I grant the realist that such truths exist and they grant me my story of how our moral intuitions are formed via a process of cultural evolution my argument is unchanged. The moral truths they propose would then be unreachable by us.

Notice that simply pointing out that there are realist truths out there, which I have granted for the sake of argument, does not itself show that we have any connection to those truths. The real moral truths could be things we find both unintuitive and abhorrent: “Eat one’s own children whenever possible”, “My right to swing my fist begins where your nose begins”, “Perform whichever actions minimize utility”. If these sorts of truths exist, whatever it means for a thing like a truth to “exist” independent of human minds, and the cultural evolution picture of the development of human culture and many

of our intuitions is correct then we are in the same position as if there are no such truths at all. Without a proposed connection between us and the moral law the proposed task of ethics, to discover the moral law and align ourselves with it, is an impossible one. It is impossible because we can seemingly have no evidence for any claim that something is the moral law, nothing to test it against, and no way to tell if we are wrong. If this task is impossible we are left in the same position we would be in with an antirealist picture of ethics, and thus we still ought to take the synthetic ethical approach.

The realist can adjust and add to their argument some connection between our moral intuitions and the real moral truths. This is an objection which actually dents my argument, if it really is the case that the moral truths are what generate our moral intuitions then the discovery of the moral law is not an impossible task, and I am fundamentally wrong about the development of culture and intuitions. It is not clear though how moral truths could do this on their own. In some sense we may think that the laws of physics perform a causal role in the evolution of our eyes, in the sense that were they different our eyes too would need to be different if they were to still see, but this is not likely for moral truths. The moral truths, if they exist in a realist sense, could only have an impact on our evolution if their existence made a difference for the fitness of some trait, cultural or biological. The laws of physics only impacted our evolution because eyes that work as if light operates the way it does are better at letting an organism see things than eyes that work as if there were alternative laws governing light. There is no reason to think this would be the case for moral truths. If these truths are proposed to happen to be aligned with whatever fitness would select for in their absence we lose all explanatory power when we cite them. These moral truths would

explain nothing additional to fitness, they are just an added layer of complexity. If this is the case it is unclear why we would possibly want to propose that they exist given that it violates norms of parsimony. If there is no evidence to point to such norms, and when we talk about them we could always replace them with “those actions which maximize inclusive fitness” then there is no reason to talk about them at all. In addition there is a serious issue for proposing that moral truths impact evolution, namely that humans are not all that has evolved and we can examine other organisms to see if we find this plausible. When we do so we should clearly find no such pattern. Ants live as dispensable drones, throwing into doubt that moral notions like autonomy have an impact on evolution. Many organisms will eat their own young, or let those that are weak starve to death, consent is a nonexistent factor in the reproduction of virtually all non-human animals and so on. To say that there is some real moral law or laws of the universe which in part drives evolution is to ignore the actual products of evolution in the world.

It should be made clear that the realist objection constitutes the denial of cultural evolution as a view and thus ought to be backed up with appropriate empirical evidence. A lot of the backing for cultural evolutionary views lies in evidence like cross cultural studies, and our knowledge of the history of culture, ideas, and intuitions. In order to make this objection one must have an explanation for how the moral law can be written on all of our hearts so to speak, and how it is the case that people with vastly different backgrounds or from different times seem to have very different moral intuitions in many cases. In addition one must give an account of why we should think that some alternate mechanism is a better explanation of the history of culture and human thought.

Moreover one must object in some way to the logic of cultural evolution as I have laid it out. I have argued, in line with Darwin and evolutionary biology, that the conditions for the generation of evolutionary systems are extremely minimal, and that once met only by constant intervention could such a system be subverted. With that in mind one must give a plausible account of how the moral law could have such a constant intervening effect, or make it the case that the initial conditions are not met.

There is so far as I can see one plausible way to do this, theistic realist ethics.³⁴ This would be a view in which God can constantly intervene to maintain the impact of the moral law upon our intuitions should evolution, cultural or biological, ever move us away from it, or set up initial starting conditions for evolution which are guaranteed to generate brains and cultures attuned to the moral law. I have no real philosophical objections to this view which are not far beyond the scope of this project, i.e. worries about the existence of God. The view is coherent and would avoid evolutionary debunking both cultural and biological.

With that being said, this view is more radical than some who would propose it seem to acknowledge. Firstly the view is a denial of the evolutionary process. It denies evolutionary processes in a different manner from creationism, but nonetheless it denies them. A creationist denies evolution by denying the historical components of an evolutionary theory, that x and y organisms both evolved from some common ancestor z, or that x culture developed out of y culture, and accept the theoretical elements, that on the basis of evolutionary fitness some genes or ideas may be selected for and thus come to be a larger portion of the population. It should be noted that not all creationists

³⁴ Plausible here refers to the plausibility of a view containing a mechanism for the requisite constant intervention, not to the overall plausibility of the view.

accept the process of evolution, some deny even what they call “microevolution”³⁵, and most deny some elements of the process, i.e. that one species can evolve into another species given the right conditions. With this being said, typical forms of creationism do accept “microevolution” or evolution within a species or kind.

This theistic objection does the opposite, accepting the historical element, but rejecting cultural evolution as an explanation for this history in favor of God as the explanation. While it may seem like less of a denial than the creationist approach it is not. The core of evolutionary theories wherever they occur is the process, not the outcome or the particular history. Because of this it is in some ways a more radical denial of evolutionary views than even creationist objections since it proposes an entirely different mechanism.

To illustrate this, a creationist about biological evolution may still accept, understand, and be rightly worried about the evolution of antibiotic resistance in bacteria. This is because they may deny that humans share a common ancestor with the bacteria in question, or that we have an accurate view of the long term origins of these bacteria at all, they may accept that natural selection is a force currently operating in the world. Because they may accept this they may accept that it operates in this manner on bacteria. On the other hand a denier of evolution as a process must say that bacteria are not evolving in the way that biologists claim, or at least that biologists are mistaken as to the reasons that these bacteria are changing in certain ways.³⁶ The denial of the process is this more radical than the denial of history, because to deny the

³⁵ This term is used differently by creationists than it is typically used by evolutionary biologists.

³⁶ I am not here claiming that to deny cultural evolution is always to deny biological evolution, and that thus anyone who argues against me by doing so is committed to creationism. That is not the case. My point is simply to demonstrate that these two modes of denying an evolutionary system, whichever system you deny, are not equivalent.

process means denying the portions of the theory which are simultaneously more fundamental and come up more frequently than the historical claims.

In addition, this mechanism being constant miraculous intervention is an extreme proposal in terms of how involved God is in the affairs of humanity. The idea that God intervenes extremely often in human affairs is odd and theoretically costly. The alternative to this is that God set up the world such that evolutionary processes could play out, but set the starting conditions for them such that their outcome would be systems evolved to be in line with the true moral law. This is possible, I again have no objections to its coherence or possibility that are within the scope of this paper, but it is extremely weak. This proposal says “all of the history of biology and culture occurred as you say, and for the reasons you say it did, but it just so happens that this landed us exactly where God wanted it to.” It is then not particularly compelling unless one is already committed to a fairly particular theistic picture, and that is not a matter I can settle here. This kind of view is unconvincing because it is immune to refutation and support. From a human perspective all possible evidence is consistent with this view and none could refute it.

This picture, much like the realist picture which proposes that the moral law is related to fitness, is ontologically extravagant, proposing the existence of entities, real moral truths, which they admit we have no evidence of. They must admit that we have no evidence of such entities because they have already admitted that the entire process, its history and all of its future will look exactly as if these entities do not exist. Because of this there is no way for this view to be more advantaged by the evidence, for it to differ in its predictions, or for it to be verified in such a way that is not equally a

verification of the fitness based evolutionary view I argue in favor of. Though views like this serve well to keep theistic pictures alive they seem extremely ill suited to serious discussion on such matters because they are constructed specifically to avoid the possibility of their falsification. What I mean is not that they are argued in a way that makes them more plausible, but rather that they decline to predict anything at all, or point to any observation at all which may make them preferable. Considerations of ontological simplicity then straightforwardly support the CCE picture as it does not need any entity like a “real moral truth” to exist and act on us.

Conclusion

My method would render ethics as a process of creation rather than discovery. I have argued that any ethics we can find already in the world is likely to be flawed and fallible. This renders methods of ethics which simply strive to examine what people already think regarding ethical matters a sort of ethics as anthropology. Capable only of answering the question “what are our current thoughts on ethical matters” but hopeless when asked “what ought we think about ethical matters”. Once we realize where norms and intuitions come from we lose the sense that there is anything beyond the anthropological to be discovered in the intuitions themselves. With that being said I have argued that there is something beyond the anthropological to be created and refined.

We are not locked into the norms and intuitions our cultures happen to have generated. In the realm of what cultures and normative frameworks could be there are likely those which would serve human interests better than those which exist, and we do ourselves a disservice when we act as if we must simply perpetuate what has occurred.

I would have us instead recognize that these intuitions are contingent, and furthermore that they are created by something over which we can have control. Humans are molded by our environments and in particular our cultures, but our cultures are nothing but what we create them to be. We ought then to strive to do better than evolution so far has in advancing the interests which humans have, and in doing so we must abandon the intuitionist project in favor of a project which views the task of ethics as creation rather than discovery.

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