10-28-2010

Rethinking Ethical Naturalism: The Implications of Developmental Systems Theory

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by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Philosophy
College of Arts and Sciences
University of South Florida

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Date of Approval:
October 28, 2010

Keywords: naturalized autonomy, anti-essentialist biology, non-essentialist normativity, ontogenetic, phylogenetic

To Gramps…

Off we go into the wild blue yonder

Acknowledgements

I am especially thankful for the dedication, time, and support of my chairs, Dr. Levine and Dr. Sadler. Thank you for the countless hours spent helping me complete this project, and of course for all the conversations that aided in me maintaining some semblance of sanity. I also want to thank Dr. Williams for his part in this process, and I owe a gigantic debt of gratitude to Dr. Ariew for stepping up when I needed it most.

Thanks to all the professors and staff of the USF philosophy department. I could not have completed this project without the knowledge I gained from the seminars and lectures.

Finally, thanks to all my friends and family. Without all your love and support I would have never completed this milestone. I owe a special thanks to my wife Michelle, and my Mom, Dad, Kathy, and Lennie. Last but not least, thank you Marley—you have literally been right by my side through the entire process.

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Abstract

Biological research has the capacity to inform ethical discussions. There are numerous questions about the nature of sexual orientation, intelligence, gender identity, etc., and many of these questions are commonly approached with the benefit of implicit or explicit biological commitments. The answers to these sorts of questions can have a powerful impact on social, ethical, and political positions. In this project I examine the prospect of naturalizing ethics under the umbrella of developmental systems theory (DST). If one is committed to DST, then those ideas involved in DST that steer biological research will also have implications for ethics. There has been much debate over whether certain human traits or attributes are the consequence of nature or nurture. This kind of question tends to be articulated in dichotomous terms where the focal point of the discussion is over which opposing causal mechanism asserts the most power over the development of these attributes. The debate places particular importance on such distinctions as that between gene and environment, and biology and culture. DST seeks to dismiss such dichotomous accounts. In this sense, DST is an attempt to do biology without these dichotomies. In the process, DST articulates a reconceptualized notion of "the natural." I am interested in how DST's reconceptualization of the natural can inform a naturalistic approach to ethics. Thus, the aim of this project is to examine the ramifications of taking DST as a guiding principle in the naturalization of ethics.

Introduction

In a general sense, naturalism is "a view of the world, and of man's relation to it, in which only the operation of natural (as opposed to supernatural or spiritual) laws and forces is admitted or assumed."[1] One of the main goals of naturalism for philosophers is to show that the subject matter of philosophy, or phenomena about which philosophers theorize, is compatible with science. Ethical naturalism, then, can be seen as an attempt to demonstrate that ethics is compatible with science—specifically to show that ethical facts are natural facts. However, such attempts come with serious difficulties.

One of the main problems encountered when attempting to ally science and ethics is figuring out how the human capacity to reason can be explained in accordance with natural law. Our experience of using reason can sometimes suggest that it is somehow free from the constraints of natural law. In other words, when we use reason to motivate an action, our experience is that we are freely choosing to perform whatever action our mind recommends. The problem consists in the idea that if nature is exhaustively governed by natural law, and the space of reasons is seen as operating freely in its own sphere, then the space of reasons may be seen as residing outside nature.[2] But, if we are to understand ethics as compatible with scientific explanation, then this intuition must be

[1] Flanagan, Sarkissian, Wong (1984, 1995, 1996, 2002, 2006) "Naturalizing Ethics." Found in Sinnott-Armstrong, Walter (2008). *Moral Psychology*. Cambridge, Massachusetts: The MIT Press. p.1
[2] Gubeljic, Mischa., Link, Simone., Müller, Patrick, and Osburg, Gunther. (1999) "Nature and Second Nature in McDowell's *Mind and World*." Found in John McDowell: *Reason and Nature* a Lecture and Colloquium in Münster. p.44

wrong because ethics involves the use of reason or seems to be a part of the space of reasons. Further, if the laws of science tell us that there is no empirical evidence to support the intuition that we make free choices, and responsibility is tied to the capacity to make free choices, then science seems to leave no room for attributing responsibility. If science leaves no room for responsibility, then naturalizing ethics jeopardizes a major component of ethical inquiry.

A further difficulty that arises in attempts to naturalize ethics is how we are to reconcile the apparent divide between culture and biology, genetic and non-genetic factors, and nature and nurture. There has been much debate over the question of whether or not certain traits or attributes are the consequence of nature or nurture. This kind of question tends to be articulated in dichotomous terms where the focal point of the discussion is over which opposing causal mechanisms assert the most power over the development of these attributes. The debate places particular importance on such distinctions as that between gene and environment, and biology and culture. It assumes that we have the capacity to isolate these concepts in a manner that will allow for claims to be made about the causal power of each. It is here that my project has something to add.

In this project I examine and outline some of the changes in how we see ethics when viewed through the filter of developmental systems theory (DST). DST seeks to dismiss dichotomous accounts of development.[3] In this sense, DST is an attempt to do biology without these dichotomies.[4] I am interested in how DST's reconceptualization of the natural can inform a naturalistic approach to ethics. The aim of this project is to

[3] See Griffiths, P.E. and R.D. Gray (1994); Godfrey-Smith (2000); Oyama (1985,2000,2001)
[4] Oyama, Griffiths, and Gray (2001). *Cycles of Contingency: Developmental Systems and Evolution*, p.1

examine the ramifications of taking DST as a guiding principle in the naturalization of ethics.

I begin with an examination of naturalism broadly construed, and then turn to an exposition of ethical naturalism. I open with a discussion of the two main branches of naturalism, methodological naturalism (MDN) and metaphysical naturalism (MPN). I argue that of these two main branches, MDN is the most viable option of the two.

Next I offer an overview of specifically *ethical* naturalism, and examine some of the problems associated with attempts to naturalize ethics. After discussing various objections and responses to naturalized ethics I conclude that the debate is still open, and that further work in this area is warranted.

I then introduce Developmental Systems Theory. I begin with a synopsis of DST and examine the implications of accepting a DST perspective. I pay particular attention to DST's reconceptualization of what it means to be "natural." I argue that this reconceptualization allows for a naturalized ethics that avoids some of the most problematic features of a naturalized ethics. Specifically it avoids the problem of seeing different developmental factors as dichotomous, thus allowing culture and other non-genetic factors to be seen as part of the natural.

Another notion that plays a key role in how we go about forming ethical conclusions is the notion of autonomy. Many argue that autonomy is requisite for attributing moral responsibility to an organism. Thus, it seems necessary to examine the implications on autonomy that result from accepting MDN under the umbrella of DST, and attempt to reconcile DST with a naturalized account of autonomy. I posit the necessary conditions for autonomy on a naturalized account, and offer an interpretation

of a naturalized account of autonomy within a DST framework. Proponents of DST maintain that there is "no single, centralized control of the processes of development."[5] So, if DST is used as a guiding principle in establishing an account of autonomy, then it follows that it is not necessary to posit volition, inclination, environmental factors, or any other factor as the primary determinant of the action—all these causal influences are best seen as part of a system in which the relationship between these factors all play a role in determining what actions are available to the organism in question.

I develop a notion of autonomy that sees autonomy as admitting of degrees rather than as an absolute. Thus, it is possible to be more or less autonomous. I base this claim on the number of available alternatives present to an organism. These available alternatives are the result of three factors: Available alternative paths, available alternative faculties, and the relationship between these faculties and paths. I call this view autonomy-as-available-alternatives. Next I examine how moral responsibility for our actions is to be construed under a naturalized account of autonomy within a DST framework. I ultimately argue that only those organisms who have reason as an available faculty, and who have the proper relationship between this faculty and an available path are to be held morally responsible for their actions.

Although I argue that reason can play a role in autonomy, I do not claim that it necessarily plays the *primary* role in determining whether an organism is autonomous. Reason is just one of many possible interactants involved in the development of autonomy. This leads to a question about what other sources motivate action. One other possible motivating source of action is inclination. This raises a couple interesting

[5] Oyama (2006) "Speaking Nature" in *How Does Nature Speak? Dynamics of the Human Ecological Condition*. (pp. 49-65). Chuck Dyke and Yrjö Haila (Eds.), series on Ecologies for the Twenty-First Century. Durham, NC: Duke University Press. p.12

questions. 1) What is the source of inclination? 2) How is it that inclination can be seen as agential? In light of these questions, I investigate the notion of inclination, and how it might look if approached from the standpoint of DST. I discuss an argument by Tamar Schapiro in which she breaks down three views on the source of inclination. I examine these three views, and investigate the capacity for these accounts to work within the naturalistic framework I endorse in the first three chapters. I discuss the three positions as she sees them, offer criticism of the extreme rationalist (ER), and extreme anti-rationalist (EAR) positions, then show how Schapiro's account lends itself to the naturalistic framework I endorse, one that assumes DST.

Finally, I investigate two contemporary versions of ethical naturalism in order to illustrate the differences between these accounts and the account that emerges when we look at ethics as understood from the theoretical/empirical perspective of DST. I examine what some have termed Duke Naturalism and Pittsburgh Naturalism.[6] In discussing Duke Naturalism I focus on the claims of Owen Flanagan, and in discussing Pittsburgh Naturalism I focus on the claims of John McDowell. I argue that the concept of nature used in these versions differs from the notion of nature found in naturalistic frameworks that assume DST. I show how their accounts differ from mine, and offer criticism of their accounts from a DST perspective. I then investigate the affect of DST's reconceptualization of nature on attempts to naturalize ethics. I argue that the use of Susan Oyama's reconceptualization of "the natural" in formulating an account of a naturalized ethics changes the very foundation on which these accounts rest.

[6] Flanagan, Sarkissian, Wong, and Ruse use this terminology in their respective chapters found in Sinnott-Armstrong, Walter. (2008). *Moral Psychology*. Cambridge, Massachusetts: The MIT Press

I want to make clear that I do not argue that DST is the best theoretical framework for integrative biology. That is up to the biological sciences and their practitioners to decide. I am interested in examining what a naturalized account of ethics and autonomy would look like under the assumption of DST, but there is very little defense for DST offered in this project. I do offer a brief account of why DST is at least a reasonable position, and explain what it entails; however, the goal of this project is not to offer argument for why one ought accept DST.

In addition, this project is not in the business of applied ethics, and does not directly engage in moral theory. I do not address any specific moral problems, nor attempt to offer solutions to any pressing ethical matters. I have not attempted to show how one would go about addressing a moral problem by application of some guiding principle or rule. Rather, my project may be best seen as having a meta-ethical character. I am interested in how we might see ethics if understood from the theoretical/empirical perspective of DST. I am not solely concerned with approaching ethics from a naturalistic position, but from the viewpoint of DST specifically. I argue that ethics needs to be compatible with science, and if DST ends up being widely recognized as the most accurate account of development from a biological perspective, then my hope is that this project will have done some valuable work.

1

Naturalism

In this chapter I offer a brief discussion of the concepts associated with "naturalism," and provide an explanation of how I use the term. I then offer an overview of ethical naturalism. In a later chapter I discuss in detail some contemporary versions of naturalized ethics, and attempt to show how the very foundation from which these accounts blossom is called into question when DST enters into the conversation.

1.1 Naturalism Considered

In the broadest sense, naturalism is "a view of the world, and of man's relation to it, in which only the operation of natural (as opposed to supernatural or spiritual) laws and forces is admitted or assumed."[7] So, in one way or another, all naturalists are at least committed to not using the supernatural to explain, understand, or account for what happens in this world.[8] In doing this, one of the main goals of naturalism for philosophers is to "ally philosophy more closely with science."[9] Now, although naturalists share this common commitment, there are different nuances found in particular accounts. The first thing to note is that there are two primary camps, metaphysical naturalism (sometimes

[7] Flanagan, Sarkissian, Wong (1984, 1995, 1996, 2002, 2006) "Naturalizing Ethics." Found in Sinnott-Armstrong, Walter (2008). *Moral Psychology*. Cambridge, Massachusetts: The MIT Press. p.1
[8] Sinnott-Armstrong, Walter (2008) p.2
[9] Papineau, David (2007) "Naturalism," *The Stanford Encyclopedia of Philosophy* (February 22, 2007), http://plato.stanford.edu/entries/naturalism/.

called ontological naturalism), and methodological naturalism. In his book, *Copernican Questions: A Concise Invitation to the Philosophy of Science,* Keith Parsons offers a fairly uncontroversial textbook presentation of the differences between these two camps upon which I will draw.[10] Parsons claims that "metaphysical naturalism is a doctrine about the nature of reality. […] it assumes that all natural things have only natural causes and therefore rejects out of hand any hypotheses postulating supernatural causes."[11] Further, metaphysical naturalism (MPN) can be split into two main lines. Let's call one the strong line, and the other the weak line. The strong line not only discounts the supernatural as an explanation, but outright denies that supernatural things exist. The weak line does not deny the existence of supernatural things, but claims that even if supernatural things did exist, they could not causally interact with the natural world.[12] Thus, whether one is committed to the strong line or the weak line, MPN maintains that anything we see going on in the natural world cannot possibly be the result of the supernatural. Although different in the strength of their commitments, both the strong line and the weak line of metaphysical naturalism are in the business of making claims about the nature of reality.

In contrast, "methodological naturalism does not offer opinions about the nature of ultimate reality; it merely requires that as a matter of good scientific practice we consider only naturalistic hypotheses."[13] The methodological naturalist (MDN) makes no

[10] Although Parsons does not offer any original analysis, he does offer a good vanilla exposition of these two camps, and this should suffice for my purposes.
[11] Parsons, Keith (2006) *Copernican Questions: An Concise Invitation to the Philosophy of Science*. New York, NY: McGraw-Hill. p.91
[12] Ibid., p.91
[13] Ibid., p.97

claims about the actual constituents of reality, but does make claims about the best way to explain the phenomena we encounter in this world.

One difference to note between the MDN and MPN is that the MDN places emphasis on the pragmatic aspect of naturalism, whereas the MPN sees naturalism as a description of the world, i.e. as an ontological or metaphysical thesis. To clarify, the MDN is concerned with what works, and therefore, claims that the best *way* to discover things about the world is to eliminate the use of supernatural explanation. Since we lack epistemic access to the supernatural, supernatural explanations do nothing to aid in the actual understanding of the phenomena they are intended to explain—they simply become placeholders for information that we lack. So, the MDN simply claims that we ought avoid positing such explanations because they are of no use in inquiry or scientific investigation. On the other hand, the MPN does not appear to be driven by a commitment to the most pragmatic approach, but rather by claims about the nature of this world. The strong line MPN offers claims about what the world consists of, and how it functions, and although the weak line refrains from offering strong claims about what the world consists, it does still constrain claims about how this world functions. Both strands of MPN, rather than seeing naturalism as just a tool for the advancement of our knowledge, see naturalism as a thesis about the nature of the world. In this sense, MDN has an instrumentalist aspect to it, and MPN has aspects of realism.

To clarify, the MDN's can be either scientific realists or anti-realists without taking a stance on whether or not we possess the capacity to discover truth. They simply claim that the best way to do so is to eliminate the use of supernatural explanations. The MDN is concerned with what methods we are most likely to discover the truth, but makes

no claims about whether or not there is a truth out there that we can or will discover. Accordingly, the MDN sees naturalism as a pragmatic tool that aids empirical research. In contrast, the MPN seems committed to a realist position. By making claims about the constitution of the world, and how the world functions, the MPN displays a dedication to the notion that there actually is some ultimate nature to reality that we can discover, and make claims about.

The strong line MPN claims that the supernatural does not exist. However, in order to offer empirical evidence of something's existence, we must be able to either observe the event or object itself, have the capacity to perform experiments that offer evidence for the existence of the event or object in question by positing this object or event as the best possible explanation, or at the very least, observe evidence of some residual effect that is best explained by positing the existence of this object or event. By definition, something that is supernatural is something that does not obey natural laws. If something does not obey natural laws, then we have no way of explaining it in natural terms. To clarify, when we offer an explanation of some event, the explanation, if it is to be articulated in natural terms, must conform to previously established laws, or to some posited new law. If we posit a new law, then this new law itself must remain consistent with other established laws. So, if an explanation for a supernatural event is given, such as a so-called miracle, then there must be some established meaning for the terms used to articulate the event. But, if the terms used to articulate the event have no established meaning themselves, then nothing has been explained. In order to offer an explanation of an event, we must have an understanding of the terms used to explain the event, and this

explanation must conform to at least some accepted rule, law, or principle. As Hume notes,

> Nothing is esteemed a miracle, if it ever happen in the common course of nature. It is no miracle that a man, seemingly in good health, should die on a sudden; because such a kind of death, though more unusual than any other, has been frequently observed to happen. But it is a miracle, that a dead man should come to life; because that has never been observed in any age or country. There must, therefore, be a uniform experience against every miraculous event, otherwise the event would not merit that appellation.[14]

In other words, miracles are whatever is unexplainable through experience, observation, or established natural laws. Thus, I read this passage as supporting the notion that if something is supernatural, as a miracle certainly is, then it does not conform to experience, observation, or accepted natural laws. Thus, we have no capacity to offer an empirical explanation for a supernatural event. In this sense, the term supernatural is reserved for those things for which we have no explanation. It is simply a placeholder for an as yet unformulated explanation. If we are able to explain something, then it is not supernatural. After all, if one is able to explain an object or event that has been called supernatural, it must be the case that it has been articulated in natural terms. So, as soon as some event or object that was previously unable to be explained, and thus called supernatural, is able to be explained, our understanding of it automatically assimilates it into our broader view of natural events, and thus it ceases to be supernatural. In this sense, it seems right to deny that we can have knowledge of the existence of the supernatural, but this does not warrant the strong claim of the MPN, that the supernatural just does not exist. It is possible that some things exist that we do not know exist, in fact, this is almost undoubtedly the case. However, in order for us to have knowledge of the existence of some thing, we need to have the capacity to offer an epistemic account of

[14] Hume, David., 2007 [1748] *An Enquiry Concerning Human Understanding*. New York: Cambridge University Press., p.101

this thing. But, as stated previously, as soon as we offer such an account it ceases to be supernatural. Anything that we have the capacity to explain as existing is implicitly natural. Hence, in order for the strong line MPN to support the claim that the supernatural does not exist, by their own standards, they need to offer an explanation in natural terms and facts. Because this is impossible to do for the supernatural, the strong line MPN has no empirically rich manner in which to support their main claim. Thus, it seems that the weak line MPN is the most epistemologically sound of the two main lines of MPN. However, the weak line has problems as well.

The weak line MPN claims that even if supernatural things do exist, they cannot causally interact with the natural world.[15] So, the weak line MPN avoids the problem of making claims about the existence or non-existence of supernatural entities; however, it does constrain claims about how these supernatural entities function if they do exist. By stipulating that supernatural entities cannot causally interact with the natural world, the weak line MPN constrains the sorts of claims that may be true of it. But, if it is impossible to explain, understand, or claim knowledge of the supernatural, then it is a mistake to posit constraints on how the supernatural does or does not function. In positing constraints on how the supernatural functions the MPN implies that there is some understanding of how supernatural entities function if they do exist. However, as noted earlier, if there is an understanding of how the supernatural functions, then it ceases to be supernatural. Thus, even though the weak line MPN allows for the existence of the supernatural, and makes no claims about whether the supernatural exists or not, and therefore avoids the specific problem of the strong line MPN, it does still place constraints on the claims that may be true of the supernatural, and thus, makes a similar

[15] Parsons (2006) p.91

mistake as the strong line MPN. In this sense, it seems that the weak line MPN simply collapses into the strong line MPN. In order to avoid this problem the weak line MPN might argue that theses constraints ought not be mistaken for metaphysical claims, but rather seen as methodological suggestions; however, this ultimately leads to the weak line MPN collapsing into MDN. Since the weak line MPN either collapse into the strong line MPN or MDN, and the strong line MPN has been shown to be unable to support their main claim, this leaves MDN as the only viable naturalistic position.

MDN "does not offer opinions about the nature of ultimate reality; but requires that as a matter of good scientific practice, we consider only naturalistic hypotheses."[16] In other words, according to MDN we should only consider those hypotheses that remain consistent with other established laws, and can be articulated in natural terms. After all, if the supernatural is posited in place of an explanation, then to go about positing supernatural hypotheses which by definition do not follow the same rules that govern the natural world, and thus are not consistent with other established laws, is of no help in advancing the understanding of the world. Thus, it makes sense that one ought avoid using the supernatural in our attempts to explain the world. Now, unlike the MPN, the MDN position does not commit one to making claims about the nature of the supernatural. The only claim about the supernatural that the MDN is committed to making, is that the supernatural defies explanation. Which by definition, must be the case. If the MDN does not commit to this notion, then it no longer follows that the supernatural ought not be admitted into consideration as an explanation for phenomena in the world. After all, if the supernatural does not defy explanation, then there is no reason not to use it if it offers the best explanation of some event, object, or phenomenon. So,

[16] Ibid., p.97

implicit in the MDN's commitment to not use supernatural hypotheses is the notion that the supernatural just is a placeholder for currently unexplainable phenomenon. In light of the aforementioned criterion for MDN, I maintain that the MDN escapes the difficulties associated with the MPN. Thus, I ultimately argue that some version of MDN is the best route to take.

1.2 My Naturalistic Commitments

I intend to promote naturalism as the best method for attaining meaningful information about our world. Thus, I am committed to some form of MDN. I maintain that the most reliable manner to attain information about our world is to use empirical evidence.[17] Thus, I argue that the best empirical theories about human beings and society, such as evolutionary theory, are the best options we have for gaining an understanding of our world. In short, my particular version of naturalism commits me to at least the following:

> 1. I maintain that even if supernatural things exists, we should not posit them as explanations about how our world works because supernatural explanations are not really explanations. Thus, I disallow the use of supernatural explanations.
> 2. I maintain that the best option we have for gaining an understanding of our world is to use our best and most relevant empirical theories.
> 3. I maintain that the difference between the human animal and the rest of the animal kingdom is one of degree.
> 4. I maintain that we are never free in the metaphysical sense.

I see the first two of these commitments as the core of any methodological naturalistic approach, and I see the third and fourth commitments following as a direct result of the second commitment. I now turn to a defense of these claims. I take it to be the case that

[17] I use a broad notion of empirical, which in addition to the hard sciences, includes but is not limited to anthropological and historical information.

commitment one has been supported by arguments earlier in this chapter, thus I will forgo any further argument for this claim, and will move on to a defense of the three remaining commitments.

1.3 The best option we have for gaining an understanding of our world is to use our best and most relevant empirical theories.

As a guide to our understanding of the world the merits of scientific inquiry cannot be denied. Science as a guide has been remarkably successful in its capacity for prediction, and problem solving. However, there has been much criticism over the merits of scientific inquiry in regards to the likelihood of it being in error. But, as J.J.C. Smart articulates, we need not see our current scientific understandings as infallible.[18] He notes, "even when a theory is overturned it can usually be seen as an approximation to the truth."[19] There has been much talk over what it means to be approximately true, Parsons notes that one way to grasp this concept is to think about the way in which one might describe the earth. To say that the earth is a sphere is technically wrong. It is not really a sphere (it bulges at the center and is flat at the poles). To say that the earth is a cube is also wrong,[20] but as Parsons' articulates, "clearly we have a very strong intuitive sense that the statement, 'the world is a sphere,' while false strictly speaking, is more 'truth like' than the statement 'the world is a cube.' "[21] So, although we must recognize that our science is both incomplete, and vulnerable to falsification, it does not warrant, we might say, throwing out the baby with the bath water. The fact is, science has shown time and

[18] Lenman, J., (2006) "Moral Naturalism," *The Stanford Encyclopedia of Philosophy*, p.2
[19] Smart, J.J.C. and Haldane J.J. (1996) *Atheism and Theism*. Malden, MA: Blackwell Publishing Ltd. p.6
[20] Parsons (2006) p.123
[21] Ibid., p.123

time again, that it has the capacity to increase our understanding of the world; however, such an account is not without objection.

Larry Laudan argues for what is often called "The pessimistic meta-induction" (hereafter PMI), which states that "[T]he fact that so many theories have been shown wrong, though they enjoyed great success and nearly universal acceptance in their day, should lead us to conclude that the majority of our present theories are likely false."[22] In response, Parsons notes that

> "[E]ven if we concede that the majority of successful theories of the past are totally false, the PMI is still not warranted because the quality and quantity of the empirical tests theories must pass has greatly increased over the history of science. […] New methods and techniques are frequently found that allow for ever more stringent tests of theories. […] Judged by the kinds of empirical tests and analytic tools we have today, many past theories were not very well tested, and so were not really very successful compared to current theories."[23]

Thus, the fact that our testing capabilities have become more rigorous over the years should lead us to accept that our current theories, while still vulnerable to falsification, are not likely to find themselves being rejected in totality as has been the fate of many earlier theories. This should give us reason to think that there is something valuable about our current theories even if these current theories are eventually shown to be false. So, even if we think our current empirical accounts will be shown false, we have good reason to think that they are at least closer approximations to the truth than previous accounts. Currently, the best account we have about how the world works is found in our scientific understanding. So, it follows that we at least have reason to think that the use of our best and most relevant empirical theories to gain an understanding of our world is warranted.

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[22] Ibid., p.120; Laudan, Larry (1984) *Science and Values: The Aims of Science and Their Role in Scientific Debate*. Berkeley: University of California Press.p.126
[23] Parsons (2006) p.124-127

1.4 Why naturalism commits one to the notion that the differences between the human animal and the rest of the animal kingdom is one of degree not kind

Before proceeding with argument for why I am committed to the notion that the differences between the human animal and the rest of the animal kingdom is one of degree, it will be helpful to explain just what I mean by the phrases "differences in degree and differences in kind."

One way to make this distinction clear is to draw attention to the difference between a category mistake and a contingent falsehood.[24] To say that Robert Bowlby is the starting nose tackle for the Tennessee Vols is a contingent falsehood. As it turns out, Bowlby is not the starting nose tackle for the Vols, but it is not in-principle something that Bowlby could not be. Bowlby, even if 70 years old, 4'3" tall, and 80 pounds (and thereby not likely to make a great nose tackle) is the type of thing that can be a nose tackle for the Vols, it just happens to be the case that he is not. In other words, the starting nose tackle for the Vols is the same kind of thing as Bowlby. Although it is false to claim that Bowlby is the starting nose tackle for the Vols, the falsity of this claim is *contingent* on the fact that Bowlby just happens to not be the starting nose tackle for the Vols, it is not because Bowlby is the kind of thing that *necessarily* cannot be the starting nose tackle for the Vols. In contrast, to claim that the color orange is the starting nose tackle for the Vols is a category mistake. It is in-principle impossible for the color orange to be the starting nose tackle for the Vols. In other words, the color orange is not the same type of thing as those things that can be starting nose tackles for the Vols. Unlike

[24] I owe this idea to Dr. Alexander Levine

Bowlby, the color orange *necessarily* cannot be the Vols' nose tackle. So, the color orange and those things that can be the starting nose tackle for the Vols are different in kind, whereas Bowlby and the starting nose tackle for the Vols are only different in degree. Having clarified how I intend to use these phrases, I now turn to a defense of why I think naturalism commits one to the notion that the differences between the human animal and the rest of the animal kingdom are of degree not kind.

Committing to the claim that the differences between the human animal and the rest of the animal kingdom are of degree, follows as a result of committing to the use of our best empirical theories to advance our understanding of the world. Currently evolution by natural selection is the most widely accepted explanation for the development of the organisms in this world. Following this explanation, there is little reason to believe that there are differences in kind between the human animal and the rest of the animal kingdom. Darwin himself opens *The Descent of Man* with a chapter titled "The Evidence of the descent of man from some lower form." He then spends the better part of the book making the case that humans, much like every other species, descended from an ancestor shared with other allied species. Thus, in a genealogical sense, every organism on the planet shares some commonality. So, in this case, differences in degree might be thought of as the sharing of a genealogical continuum. Darwin sees the origin of species as the result of the extinction of intermediate forms. The extinction of intermediate forms results in gaps between one species and another; however, if all these intermediate forms existed today, we would see no clean break between species. In the case of organisms, it is not in-principle impossible to close this gap. However, the current gap seen between organisms leads to the notion that there are *apparent* differences in

kind between species, but these apparent differences are only visible due to the extinction of the connecting forms. For example, if we were to locate "the missing link," then we would replace the current gap between humans and apes, and thus the differences between the two would no longer be so clear. If one accepts evolutionary theory, then one also accepts the idea that at some time a connecting variety between humans and apes did exist. Thus, what appear to be differences in kind between species, can be written off as differences in degree if one accepts evolutionary theory.

Further, Darwin was committed to the notion that all organisms are the result of a gradual evolutionary process, and the human animal is no exception. In doing this, as James Birx notes, "Darwin positioned the human animal squarely within material nature without recourse to metaphysical forces or theological beliefs. There was no appeal to teleology or essentialism. […] Darwin let the scientific facts lead him to their unmistakable conclusions."[25] In this sense, Darwin's method of discovery was naturalistic. Following suit, I am committed to viewing the human animal as the result of a material nature, and thus I am dedicated to answering questions about the human animal in light of this commitment. I maintain that viewing the human animal as the result of a material nature gives further reason to reject the notion that the human animal has a distinct nature from that of other animals. In other words, any essentialist claims about the human animal must be rejected if one is committed to answering questions about the human animal in reference to the human animal's position in the material world. Appealing to the material nature of our world to answer questions about the human animal results in the use of our best empirical theories to answer such questions.

[25]Darwin, Charles. 1998 [1871 & 1874]. *The Descent of Man*. New York, New York: Prometheus Books. p.xviii

Again, my naturalistic commitments commit me to maintaining that the most advantageous method for attaining information about the human animal must take into account evolutionary explanations. Following David Hull, I argue that the acceptance of an evolutionary explanation leads to the rejection of essentialist claims. Hull states

> In most cases, any character universally distributed among the organisms belonging to a particular species is also possessed by organisms belonging to other species, and conversely any character that happens to be limited to the organisms belonging to a particular species is unlikely possessed by all of them. […] A character state (or allele) which is rare may become common, and one that is nearly universal may become entirely eliminated. In short, species evolve, and to the extent that they evolve through natural selection, both genetic and phenotypic variation are essential.[26]

The constant change of characteristics propagated by evolutionary theory exposes the difficulty of maintaining essentialist notions of the human animal or any animal, for that matter. There is no such thing as a static species. In fact, it has been argued that the delineation of species is no more than an arbitrary delineation made for the pragmatic benefits gained through a taxonomy of organisms in the world.[27] In other words, classifying species allows for ease of communication in discussions about particular organisms. If classifications of species are simply a matter of pragmatic benefit, then it follows that these classifications offer no real evidence about what characteristics a particular organism *must* possess in order to be part of a particular species. The result of recognizing that such classifications are arbitrary at best, exposes our inability to demarcate phylogenetic divides. Without a static notion of any supposed species, it is impossible to isolate any species in virtue of its possessing certain traits. Thus, there seemingly is no way to draw such distinctions given the empirical evidence at hand. If all

[26] Hull, David, (1987) "On Human Nature," Philosophy of Science Association, vol.2. p.11
[27] See Beatty, John "Speaking of Species" found in Kohn, David (1985). *The Darwinian Heritage*: including proceedings of the Charles Darwin Centenary Conference, Florence Center for the History and Philosophy of Science, June 1982. Princeton, New Jersey: Princeton University Press, in association with Nova Pacifica. pp.265-280.

of these supposed species are in a constant state of change, then there is no one moment in time that takes precedence over any other moment in time in deciding which organisms belong to a particular classification. I argue that the capacity to make essentialist claims about the "nature" of any organism relies on the notion that we are capable of isolating a particular set of characteristics possessed by all and only members of a supposed species. Since the acceptance of an evolutionary account supports the idea that this capacity is not possible, then the acceptance of an evolutionary account leads to the rejection of any essentialist claims regarding the nature of the human animal. Consequently, I maintain that our best empirical theories lead to the conclusion that the differences between the rest of the animal kingdom and the human animal must not be differences of kind, but rather of degree. In fact, as we will see later, the incorporation of DST into the conversation may give reason to think that there are differences of degree between each individual organism.

1.5 Naturalism and Freedom

In applying empirical evidence toward an understanding of the world, we are necessarily committed to the use of causal explanations to account for events. Even if science eventually confirms that the universe is not a deterministic system—where cause and effect is viewed as probabilistic rather than deterministic as quantum mechanics suggests, there is still no room for metaphysical freedom. In order to have metaphysical freedom we must have the capacity to choose what we wish, but if things are probabilistic, then we would have no more control over our choices or the outcomes of

our choices than we have under a deterministic system. I argue that there is simply no way to maintain my naturalistic position, and at the same time defend the notion that organisms possess metaphysical freedom.

There are no "unmoved movers" in this world. Thus, any notion of "freedom" used in the context of my naturalism must be qualified. According to Thomas Nagel almost everything that we do is subject to causal influences beyond our control.[28] By beyond our control he means those factors that in Kantian terms are not the product of our will. In similar fashion to Nagel, I argue that there are a set of conditions that all organisms in this world are subject to, and that these conditions interfere with the capacity for freedom in the broadest sense. To clarify, I see these conditions as the bare minimum of necessary conditions involved in the existence of any organism, call them the bare necessities (BN) inherent in any organism's life. In other words, all organisms are subject to these conditions. Thus, to be free, is to not to be free from the BN, but rather to be free from things that interfere with the organism that are in addition to BN. So, the starting point for talk about how free some organism *is* under the naturalism I endorse begins with the acceptance of the BN. The BN are comprised of the following:

1. An organism's temperament, inclinations, capacities, etc.
2. The kind of situations an organism faces.
3. How an organism is determined by antecedent circumstances: upbringing, education, social influences, etc.
4. The way an organism's actions and projects turn out: the results of some actions may or may not be what the organism expected.[29]

Assuming that these four things are in play at all times, it follows that metaphysical freedom is not an option. Since metaphysical freedom is not an option, I accept a compatibilist account of freedom. So, in order to make meaningful claims about the

[28] Nagel, Thomas (1979). *Mortal Questions*. Cambridge, UK: Cambridge University Press. p.28
[29] These conditions are nearly the same conditions Nagel offers in *Mortal Questions,* p.28

freedom of an organism, it is necessary to admit these conditions in as the necessary components involved in any organism's life, and to take them as the starting point for which notions of freedom are plausible. The BN are simply part of the organism's base set of circumstances. In this sense, the freest an organism can be, is to have no constraints other than the BN. If this be the case, then metaphysical freedom is just something that organisms in this world cannot ever fully possess.

In addition, on my naturalistic approach I maintain that freedom is something that can only be evaluated *a posteriori* on the basis of natural facts. I maintain that the BN are part of a set of unavoidable natural facts, and must be taken into consideration in any empirically sound evaluation of an organism's freedom. So, from an empirical perspective, it makes little sense to think that organisms escape the constraints placed on them by the BN. If metaphysical freedom requires the capacity for organisms to act without these constraints, then metaphysical freedom is unattainable.

1.6 Ethical Naturalism: *An Overview*

In the broadest sense, to be an ethical naturalist is to believe that it is possible to offer an adequate account of morality in terms that are consistent with natural law.[30] In his oft cited article "Why Naturalism," David Copp asserts that as a species of naturalism,

> ethical naturalism holds that there are moral properties, […] and that these properties are natural. Accordingly, when a naturalist hears us say that something is right or wrong, […] she takes the truth of what we say to depend on whether the relevant thing has the relevant property, and she takes this to depend in turn exclusively on the way things are in the natural world.[31]

[30] Lenman (2006) pp.1,2
[31] Copp, David (2003) "Why Naturalism?" *Ethical Theory and Moral Practice*, Vol. 6, No.2, Papers Presented to the Annual Conference of the British Society for Ethical Theory, Reading, 25-26 April 2002 (Jun., 2003), p.179

He further claims that "naturalism is best understood as the view that the moral properties are natural in the sense that they are empirical."[32]As argued previously, I maintain that the best option we have for gaining an understanding of our world is to use our best and most relevant empirical theories. In regards to our understanding of morality, it is just this that ethical naturalism seeks to do. James Lenman states that the naturalist claims "the domain of moral value is to be seen as simply part of the familiar natural world, known about in just the familiar, broadly empirical ways we know about the natural world." [33] In this sense, he thinks that the naturalist seeks to collapse the distinction between the domain of natural facts and the domain of values, and thus expose value to us as simply part of the domain of natural facts.[34] Others, such as Simon Blackburn, in describing the aim of ethical naturalism, assert that

> […] just as we can use […] information to construct theories involving higher-order concepts, such as those of physics, so we can use it to construct the moral concepts. […] (such a theory) intends to ask no more from the world then we already know is there—the ordinary features of things on the basis of which we make decisions about them, like or dislike them, fear them and avoid them, desire them and seek them out. It asks no more than this: a natural world, and patterns of reaction to it.[35]

So, the recurrent theme we see in all these claims, is that there should be no methodological gap between the way we come to know about things in the natural world and the way we come to know about things in the moral world. In other words, under this account, the moral world just is part of the natural world. Of course, this approach does not come without its critics or problems. Many have questioned whether we have the capacity to collapse this distinction. As Copp states, "[T]he chief problem (for ethical naturalism) […] is to explain what it might mean to claim that moral properties are

[32] Ibid., p.179
[33] Lenman, J., (2006) p.3
[34] Ibid., p.3
[35] Blackburn, Simon (1984) *Spreading the Word*, Oxford: Clarendon Press, p.182

natural properties."[36] I now turn to a brief discussion of some of the most prominent charges against this endeavor.

Many skeptics of ethical naturalism insist that it is a mistake to claim that a moral theory does not necessitate the use of some special set of explanatory information reserved for just moral questions. This charge is often articulated in terms of a fact/value distinction. Naturalized accounts of ethics are often charged with making the mistake of drawing conclusions about what *ought* be the case from premises that state only what *is* the case. One of the earliest and most influential sources in the literature is found in Hume's *Treatise of Human Nature*, where he offers what Max Black termed "Hume's Guillotine," wherein Hume remarks that we cannot derive "ought" from "is." Hume writes:

> In every system of morality, which I have hitherto met with, I have always remarked, that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs; when of a sudden I am surprised to find, that instead of the usual copulations or propositions, *is*, and *is not*, I meet with no proposition that is not connected with an ought, or ought not. This change is imperceptible; but is, however of the last consequence. For as this *ought*, or *ought not*, expresses some new relation or affirmation, it is necessary that it should be observed and explained; and at the same time that a reason should be given, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it.[37]

Now, numerous individuals have written this off as a simple logical constraint on the grounds that one cannot make logical inferences of value from observations of natural facts without the inclusion of an additional premise.[38] Still, many argue that the difference between fact and value statements may not be as obvious as it appears. In any statement of fact there are underlying assumptions that must either be investigated or simply accepted. So, we might be warranted to call into question the capacity to draw a

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[36] Copp (2003) p.179
[37] Hume, David. (1740) *A Treatise of Human Nature*. Reissued (2007). Nu Vision publications. p.335
[38] Teehan, John (2004) "On the Naturalistic Fallacy: A Conceptual Basis for Evolutionary Ethics." Evolutionary Psychology: vol.2: 32-46.

clean distinction between all fact and value statements. In an article titled, "The Gap Between "Is" and "Should," Max Black does just this. Black asserts,

> To those who claim the existence of an unbridgeable logical gap between "ought" and "is," I offer for consideration the following counterexample:
>
> Fischer wants to mate Botwinnik,
> The one and only way to mate Botwinnik is for Fischer to move the Queen.
> Therefore, Fischer should move the Queen.[39]

Black argues that in this example both premises make statements of fact; however, the conclusion is a nonfactual "should" or "ought" statement (where the differences between "should" and "ought" are insignificant in this case).[40] Now, one might question if Black's example is valid, perhaps he has managed to smuggle in a logical mistake. One might think that the conclusion of Black's argument need be stated in a factual manner if it is to follow from the premises. James Rachels thinks we can explain why Black's example works if we look at the relationship between "ought-judgments, reasons, and preferences."[41] He writes:

> Any judgment about what should be done requires reasons in its support. If I say you should get out of the room, you may ask why. If there is no reason, then it isn't true that you should leave […]. Suppose, however, I tell you the room is on fire. That provides a reason; and if you believe me, you will no doubt leave at once. But whether this *is* a reason for you will depend on your attitudes. If you want to avoid being burned, then the fact the room is on fire is a reason for you to leave.[42]

Rachels argues that this example demonstrates a common form of practical reasoning. There is a "judgment about what should be done and a reason is supplied for why this should be done. The fact that you have a certain desire […] explains why the reason cited *is a reason* for you to do the indicated action"[43] Rachels argues that there is no reason to think that this pattern of reasoning is invalid. If you do not want to get burned, and the

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[39] Black, Max (1964) "The Gap Between 'Is' and 'Should'," *The Philosophical Review*, 73, p.169.
[40] Ibid., p.169
[41] Rachels, James (2000) "Naturalism," *The Blackwell Guide to Ethical Theory*, ed. Hugh LaFollette., Oxford: Blackwell. p.8
[42] Ibid., p.8
[43] Ibid., p.8

only way to avoid being burned is to leave the room, then you should leave the room. He claims that Black's example makes the same move.

> It says that Fischer should move the Queen, a judgment that is true only if there are good reasons in its support. Then just such a reason is provided (because moving the Queen is the only way to mate Botwinnik). And finally, the relevance of this reason is secured by asserting that Fischer has the required attitude (he wants to mate Botwinnik). If Fischer wants to mate Botwinnik, there is a good reason for him to move the Queen. So it follows that he should move the Queen.[44]

So, Rachels thinks that Hume is wrong to think we can *never* derive "ought" from "is." However, he thinks Hume is wrong for a reason that Hume himself illustrates in his own inquiry.

> If our premises include information about a person's relevant desires, we may validly draw conclusions about what he or she should do. This result is not out of keeping with the spirit of Hume's view. Indeed, it is probably better to express Hume's view as the idea that we cannot derive ought-judgments from facts about how the world is *independently of our desires and other attitudes regarding it*. That is the point of Hume's Guillotine.[45]

Indeed, it seems that the premise, "Fischer wants to mate Botwinnik" displays the factual claim that Fischer has a desire to mate Botwinnik. Thus, if Fischer wants to satisfy his desire, then he must do what is necessary to satisfy this desire. If what is necessary to satisfy Fischer's desire, in this example, is for Fischer to "move his Queen," then it follows that Fischer "should" move his Queen. Black notes that "nobody who understands the premises of the practical argument and knows the rules for the proper use of 'should' can honestly offer any other 'should' conclusion."[46] He writes:

> In this respect, the parallel with "theoretical" arguments is strong. Accordingly, no special "practical" logic is needed in such cases: the relevant principles are the familiar ones employed throughout deductive reasoning.[47]

Thus, according to Black, it is possible to derive nonfactual conclusions from factual premises. It is worth pointing out that Black's argument seems to suggest that the rules

[44] Ibid., p.9
[45] Ibid., p.9
[46] Black (1964) p.179
[47] Ibid., p.179

for the proper use of "should" imply that people should satisfy their desires, and this seems like a non-moral rule.[48] Black's use of "should" may be seen as instrumental. If one desires to do "X," and in order to do "X," one needs to do "Y," then one "should" do "Y," in an instrumental sense, but not necessarily in a moral sense. It might be instrumentally necessary that Anne kills Manuel if he stands in the way of her satisfying a desire, and thus in an instrumental sense, she "should" kill Manuel. But, we might wonder if she *really* "should" kill Manuel. So, Black appears to have a weakness in his argument. Nonetheless, although Black's example has its problems, and may even seem trivial to many, it does seem to at least weaken the blow of "Hume's Guillotine."

In addition to the accounts offered earlier, some maintain that ethical naturalism is in the business of defining the good as that which satisfies our interests. Rachels takes this stance as he claims that the most plausible form of ethical naturalism "begins by identifying goodness with satisfying our interests, while 'interests' are explained in turn as the objects of preferences. Protecting our eyesight […] is in our interests because we have desires that would be frustrated if we could not see; and that is why unimpaired eyesight is a good thing."[49] Again, this view has been met with heavy objections, most notably in the writings of G.E. Moore. According to Rachels, "Moore believed that no such view can be correct, [...] if we focus our attention on what we mean by 'good' and what we mean by 'satisfies our interests' we will see that they are not the same. We need only think clearly about the two notions to realize they are different."[50] In defending this view, Moore levees a criticism against ethical naturalism that is known as "The Open Question Argument." In *Principia Ethica,* Moore calls into question our ability to offer a

[48] I owe this insight to Dr. Brook Sadler
[49] Rachels (2000) p.2
[50] Ibid., pp.2,3

final or ultimate answer to the question 'What is good?' By this he does not mean what things are good, but "how 'good' is to be defined."[51] He states, "'good' is a simple notion; that, just as you cannot, by any manner of means, explain to anyone who does not already know it, what yellow is, so you cannot explain what good is."[52] Moore argues that it is only possible to define the "real nature" of complex things. If the object in question is "simple," then the best we can do is offer examples of things we think exude this quality. He explains:

> You can give a definition of a horse, because a horse has many different properties and qualities, all of which you can enumerate. But when you have enumerated them all, when you have reduced a horse to his simplest terms, then you can no longer define those terms. They are simply something which you think of or perceive, and to any one who cannot think or perceive them, you can never, by any definition, make their nature known.[53]

Unlike a horse, Moore maintains that yellow and good are not complex, but rather notions of the simplest kind. He declares that these *simple* kinds are what we use to compose definitions of other things, and that they (simple kinds) cannot be furthered defined, analyzed, or de-composed into constitutive parts.

Following this, Rachels sees Moore's argument as implying that if one claims "goodness and self interest-satisfaction are the same thing, then this would be like asking 'Do the things that satisfy our interests satisfy our interests?'"[54] If this is the case, then it seems a similar argument can be given in regards to "any other natural property with which goodness is identified, and this seems to show that goodness cannot be identical with anything other than itself […]."[55] Rachels concedes that if we take naturalism to be a thesis about the meaning of words, which for example might lead to the conclusion that

[51] Moore, G.E. (1903) reissued (1993). *Principia Ethica*, Cambridge: Cambridge University Press., p.57
[52] Ibid., p.59
[53] Ibid., p.59
[54] Rachels (2000) p.3
[55] Ibid., p.3

the word "good" just means "satisfies our interests," then Moore's argument seems plausible.[56] However, Rachels thinks that we need not conceive of ethical naturalism as doing this. He claims that "ethical naturalism can also be understood […] as an idea about what goodness *is*—that it is, for example, the same thing as the property of satisfying our interests."[57] So, Rachels thinks that if Moore's argument is sound, then it would show that things like the morning star and evening star or H_2O and water cannot be identical. He argues:

> If we focus our attention on what we mean by those terms, we will see that they are not the same—the first is a star seen in the morning, while the second is a star seen in the evening. And the question "Is the Morning Star the Evening Star?" was an open question the answer to which was unknown for many centuries. But in fact the two are identical. So, Moore's arguments cast no doubt whatever on ethical naturalism, understood as a thesis about the nature of things.[58]

If Moore's argument was sound, then it should show that the morning star can only be identical with itself. But, as Rachels has shown, this will only seem the case if it is the meaning of the term "Morning Star" we are looking at, rather than the referent of the Morning Star. So, if Rachels is right to think that ethical naturalism is a thesis about the nature of things, rather than about the meanings of terms, then it seems he has dulled the blow that Moore's "Open Question Argument" deals to ethical naturalism.

A further criticism is found in discussions of internalism. The internalist expresses concerns in regards to naturalism's capacity to deal with the connection between moral judgments and motivation. As Lenman notes, internalism claims "that you can't make a moral judgment and not be motivated to act in accordance with it."[59] What this means depends on what "branch" of internalism one endorses. In David Brink's book, *Moral*

[56] Ibid., p.3
[57] Ibid., p.3
[58] Ibid., p.3
[59] Lenman (2006) p.9

Realism and the Foundations of Ethics, he draws a distinction between what he calls *strong* internalism and *weak* internalism. He writes:

> Weak internalism about motives claims it is a conceptual truth that moral considerations provide *some* motivation, while strong internalism about motives claims it is a conceptual truth that moral considerations provide *sufficient* motive for action. *Weak* internalism about reasons claims it is a conceptual truth that moral considerations provide *a* reason for action, while strong internalism about reasons claims it is a conceptual truth that moral considerations provide the agent with *conclusive*, *overriding*, or *sufficient* reason for action.[60]

So, in the case of strong internalism, to be motivated means one *will* act when a motivation is present; however, in the case of weak internalism, motivation does not necessarily result in the performance of an action. Rather, as Lenman notes, "[*W*]*eak* internalists allow that the motivation is defeasible."[61] By defeasible he means that although one is motivated to some extent to perform a particular action, one may fail to actually perform the action because one is *more* motivated to perform another action, or perhaps more likely, fail to perform the action out of weakness.[62] Although some do support strong internalism, both Brink and Lenman believe that the position cannot sufficiently deal with cases of weakness of will, "where we all too frequently fail to act as we believe we morally ought."[63] So, we will not investigate strong internalism any further, but rather focus on the claims of the weak internalist.

It should be no surprise that ethical naturalism rejects the claims of the weak internalist. As Lenman remarks, if for the ethical naturalist " […] a moral judgment is just a belief to the effect that some natural fact obtains, I might at least conceivably hold that belief and simply not give a damn."[64] So, in this case, the ethical naturalist offers reason to believe that it is possible to be an *amoralist*. In other words, it is possible to

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[60] Brink, David (1989) *Moral Realism and the Foundation of Ethics*. Cambridge: Cambridge University Press. pp.41-42
[61] Lenman (2006) p.9
[62] Ibid., p.9
[63] Ibid., p.9
[64] Ibid., p.9

make moral judgments, and at the same time not care about these judgments. If the ethical naturalist is right to hold this position, then it seems the notion of motivation offered by the weak internalist is called into question. Brink claims that internalism makes the amoralist conceptually impossible. He writes,

> Although indifference to what is regarded as moral considerations may be fairly rare, it does seem to exist. Some people (e.g., certain sociopaths) do not care about what they regard as moral considerations. Moreover, the internalist cannot rest content with the extensional claim that everyone is, in fact, motivated by moral considerations. […] The internalist about motives claims it is a conceptual truth about morality that moral judgment or belief motivates. According to the internalist, then, it must be conceptually impossible for someone to recognize a moral consideration or assert a moral judgment and remain unmoved.[65]

So, in order for the claims of the internalist to follow, it must be the case that there is no such thing as the amoralist. But, it certainly appears as if this type of individual is not only possible, but actually exists. Thus, in order for the internalist to escape this charge, they must show that those who appear to be an amoralist, are not actually an amoralist. This is exactly what the internalist attempts to do.

In R.M. Hare's book, *The Language of Morals*, he maintains that individuals who appear to be amoralist are actually not. He argues that "[…] value-judgments, if they are action-guiding, must be held to entail imperatives."[66] In other words, according to Hare, it is *not* possible to make moral judgments, and at the same time not care about these judgments. He believes that in cases where we think we have identified an amoralist, we have actually mistaken the evaluative use of a term for what he calls the *inverted-commas* use of a term. What this means, is that in cases where Uncle Bill says, for example, "I know I ought not give my three year old niece Charlotte whiskey, but I don't care ," the "ought" sentence is not a genuine value judgment, but rather, as Hare notes, it means that not giving Charlotte whiskey "[…] falls within a class of actions which is generally held

[65] Brink (1989) p.46
[66] Hare, R.M. (1952). *The Language of Morals*. New York: Oxford University Press., p.163.

to be obligatory in the evaluative, imperative-entailing sense," [67] but which is not held in this same manner by Uncle Bill. In other words, Uncle Bill is simply making what Lenman calls an anthropological judgment or social observation.[68] He does not really make a moral judgment when he utters the words "I know I ought," rather he is simply conveying the moral views of others with whom he does not agree.[69] So, according to the internalist, in apparent cases of amoralism, what we are really dealing with is someone who is unmoved by considerations that are "only *conventionally regarded* as moral."[70] If these considerations were actually moral considerations, then the subject in question would be moved to act on these considerations. In response, Brink thinks that the internalist does not take the amoralist challenge seriously enough.[71] He writes:

> Amoralist skepticism is a familiar philosophical and popular form of skepticism. Reflection on the stringent character of many apparent moral demands can make us wonder whether we do have good reason to be moral. We may even come to wonder whether we have good reason to become amoralists. All of this seems to assume that the amoralist is an intelligible figure. […] It is simply unclear why we should assume that the person who professes indifference to what she insists are moral requirements is confusedly using moral language in inverted commas or mistaken about what morality requires. We can imagine someone who regards what we take to be moral demands as moral demands—and not simply as conventional demands—and yet remains unmoved. [72]

So, in essence, Brinks response is that due to the stringency of moral demands, that skepticism about the justification or rationality of moral demands is warranted.[73] Thus, it is reasonable to question whether or not we have good reason to be moral. If we have reason to question this, then Brink thinks the amoralist is at least an intelligible figure. Thus, it is at least possible that an amoralist exists, and if this be the case, then we should

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[67] Ibid., p.165
[68] Lenman (2006) p.10
[69] Brink (1989) p.46
[70] Ibid., p.46
[71] Ibid., p.47
[72] Ibid., pp.47-48
[73] Ibid., p.48

at least offer reason for why this person should care about morality.[74] As Lenman notes, Brink must hold that "[…] taking any interest in morality is […] rationally optional,"[75] and it seems the passage above expresses just this notion. If morality is rationally optional, as Brink implies, then it seems warranted to question the merit of being moral, and so there is reason to think that any rational individual might require reasons for why they ought care about morality. Further, it seems reasonable that one might fail to be given what one sees as a "good" reason to be moral, and thus take on the character of an amoralist. Following this, it certainly appears that there is reason to think that amoralism is a possibility. Since, as Lenman notes, a moral judgment for the ethical naturalist " […] is just a belief to the effect that some natural fact obtains,"[76] and thus one might "at least conceivably hold that belief and simply not give a damn,"[77] the possibility of amoralism is consistent with a naturalist ethics. However, it is clearly not consistent with the claims of the weak internalist. Thus, the possibility of amoralism is a real problem for Brink and the internalist.

It should be clear at this juncture that ethical naturalism has been met with heavy objections; however, it should be equally clear that these objections have been met with numerous responses, and replies. All this shows is that the prospect of a naturalized ethics has not been put to rest just yet. The argument is not over, and the conclusions not settled.

Having taken at least a cursory look at the general notion of ethical naturalism, and some of its critics, I want to bracket this discussion for the moment. In Chapter Five, I reopen this discussion with an examination of some contemporary versions of

[74] Ibid., p.48
[75] Lenman (2006) p.14
[76] Ibid., p.9
[77] Ibid., p.9

naturalized ethics. These versions of naturalism appear to assume at least some form of an essentialist notion of nature. This is something that I want to separate from, and I think the injection of DST into the conversation aids in doing just this. Thus, in Chapter Two, I discuss the notion of DST, and the reconceptualization of both nurture and nature found in the DST literature. Later in Chapter Five, I evaluate the result that this reconceptualization has on a naturalized ethics.

2

DST and the Implications of its Acceptance

In the last chapter I argued that if one is committed to naturalism, then one ought be committed to naturalism as a methodological thesis. I then discussed some of the common literature surrounding the prospects for a naturalized ethics. In closing, I made mention of the impact that the acceptance of DST has on the concept of "the natural." In light of this, I now offer a brief examination of the implications involved in the acceptance of DST. First, I open with a synopsis of DST. I then discuss DST's challenge to essentialism and preformationism. Next, I investigate DST's Challenge to the Biology/Culture divide. Finally, I give some attention to Susan Oyama's reconceptualization of "the natural," and some of the general ethical implications that may follow from an acceptance of DST. In a later chapter I examine in more detail how this reconceptualization might shape naturalized ethics.

2.1 Synopsis of DST

There has been much debate over the question of whether or not certain traits or attributes are the consequence of nature or nurture. This kind of question tends to be articulated in dichotomous terms where the focal point of the discussion is over which

opposing causal mechanisms assert the most power over the development of these attributes. The debate places particular importance on such distinctions as that between gene and environment, and biology and culture. It assumes that we have the capacity to isolate these concepts in a manner that will allow for claims to be made about the causal power of each. DST seeks to dismiss such dichotomous accounts.[78] In this sense, DST is an attempt to do biology without these dichotomies.[79] Susan Oyama articulates DST as "[…] a general theoretical perspective on development, heredity and evolution, a framework both for conducting scientific research and for understanding the broader significance of research findings."[80] In doing this, Oyama maintains that DST "draws on insights from researchers in a wide range of areas who have been dissatisfied with crude dichotomous accounts of development and have attempted to formulate an alternative."[81] The alternative promoted by DST is one in which the capacity to isolate the causal responsibility of any particular object is called into question. DST calls for a notion of development that sees traits as the result of a mutual interaction. Peter Godfrey-Smith suggests that one helpful way to think about DST "is to think of it as an assertion of a very strong *antipreformationism* about development."[82] DST seeks to refute the notion that there are pre-formed representations of traits in DNA on the grounds of evidence against preformationism.[83]

Now, it needs to be pointed out that DST does not simply maintain that development is the result of a combination of nature and nurture, where one might make

[78] See Griffiths, P.E. and R.D. Gray (1994); Godfrey-Smith (2000); Oyama (1985,2000,2001)
[79] Oyama, Griffiths, and Gray (2001). *Cycles of Contingency: Developmental Systems and Evolution*, p.1
[80] Ibid., p.2
[81] Ibid., p.2
[82] Godfrey-Smith, Peter "On the Status and Explanatory Structure of Developmental Systems" found in Oyama, Griffiths, and Gray (2001) p.283
[83]Griffiths, Paul and Knight, Robin. "What Is the Developmentalist Challenge?" The University of Chicago: *Philosophy of Science*, vol. 65, No. 2 (Jun., 1998), p.255

the claim that a certain trait is for example, 30 percent nature, and 70 percent nurture.[84] According to Oyama, this simply continues the nature/nurture debate.[85] She claims that what we need is "a way of thinking about development that does not rely on a distinction between privileged essential causes and merely supporting or interfering causes."[86]

Further, Oyama expresses the need for a reformulation of other concepts in contemporary biology, such as inheritance and evolution.[87] She claims that the "reliability of many aspects of development has encouraged biologists, psychologists, and social scientists to postulate some central directing agency or 'master molecule.'" [88] In addition, such researchers define inheritance and evolution as the passing on and alteration of such "master molecules."[89] All other contributions to development are then grouped together as environment. Oyama maintains that

> In contrast, DST views both development and evolution as processes of *construction* and *reconstruction* in which heterogeneous resources are contingently but more or less reliably reassembled for each life cycle.[90]

In other words, following Paul Griffiths and Russell Gray, "[T]he full range of developmental resources represents a complex system that is replicated in development."[91] Now, although these resources may play different roles, Griffiths and Gray note that "[…] there is nothing that divides the different resources into two fundamental kinds."[92] In this sense, there is nothing distinctive about one developmental resource over another. There is no primary determinant of development. Thus, DST does

[84] Oyama, Griffiths, and Gray (2001) p.1
[85] Ibid., p.1
[86] Ibid., p.1
[87] Ibid., p.1
[88] Ibid., p.1
[89] Ibid., p.1
[90] Ibid., p.1
[91] Griffiths, P.E. and R.D. Gray. "Developmental Systems and Evolutionary Explanation." *The Journal of Philosophy*, vol. 91, no. 6 (Jun., 1994), p.277
[92] Ibid., p.277

not simply rely on a distinction between what might be termed "essential causes" and "supporting causes." Avoiding this distinction is, according to Oyama, what is needed if we wish to do away with the nature/nurture debate. I now turn to a more detailed account of how DST achieves this.

Oyama offers the following list of the major themes in DST:

> 1. Joint determination by multiple causes—every trait is produced by the interaction of many developmental resources. The gene/environment dichotomy is only one of many ways to divide up these interactants.
> 2. Context sensitivity and contingency—the significance of any one cause is contingent upon the state of the rest of the system.
> 3. Extended inheritance—an organism inherits a wide range of resources that interact to construct that organism's life cycle.
> 4. Development as construction—neither traits nor representations of traits are transmitted to offspring. Instead, traits are made—reconstructed—in development.
> 5. Distributed control—no one type of interactant controls development.
> 6. Evolution as construction—evolution is not a matter of organisms or populations being molded by their environments, but of organism-environment systems changing over time.[93]

2.1.1 Joint determination

The concept of joint determination by multiple causes draws into question the fruitfulness of accounts that rely upon dichotomies to answer questions about the causal impetus of particular factors. It promotes the notion that all traits are the product of mutual interaction amongst various developmental resources. In particular it rejects the notion that the use of a gene/environment dichotomy is dynamic enough to offer insight into the causal factors involved in ontogeny and phylogeny. DST maintains that "[T]he distinction between genes and every other causal factor in development is just one more grouping."[94] Oyama, Griffiths, and Gray write:

[93] Oyama, Griffiths, and Gray (2001) p.2; (Gray 1992, 1997; Schaffner 1998; Griffiths and Knight 1998; Oyama 2000)
[94] Oyama, Griffiths, and Gray (2001) p.2

> Oppositions between genes (or biology) and learning, or between genes (or biology) and culture, […] are miserably inadequate for capturing the multitude of causal factors needed for any reasonable treatment of ontogeny or phylogeny. DST emphasizes crucial but often overlooked similarities among resources that are usually contrasted.[95]

This does not mean that DST maintains that all developmental causes are of equal importance.[96] It is clear that there is a difference in the significance of the roles played by these causal factors. Griffiths and Knight suggest that

> The real Developmentalist position is that the empirical differences between the role of DNA and that of cytoplasmic gradients or host-imprinting events do not justify the metaphysical distinctions currently built upon them.[97]

Accordingly, there is no justified reason to construct developmental theories based on the distinction between DNA and all other causal contributors simply because there is a difference in the role played by DNA and other host-imprinting events. Oyama notes that the "parity thesis" discussed by Griffiths and Knight

> does not imply that there is no difference between the *particulars* of the causal roles of genes and factors such as endosymbionts or imprinting events. It does assert that such differences do not justify building theories of development and evolution around a distinction made between what genes do and what every other causal factor does.[98]

Thus, although there is a difference in the causal roles of genes and other factors, these differences do not provide reason to build theories about development or evolution on a distinction between the roles of the genes and these other factors. Building theories on the basis of that distinction perpetuates the same problems associated with accounts based on the nature/nurture distinction.

Further, in denying that theories based on this distinction can adequately account for ontogeny and phylogeny, DST draws attention to the similarities between resources

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[95] Ibid., p.2
[96] Griffiths and Knight (1998) p.254
[97] Ibid., p.254
[98] Oyama, Griffiths, and Gray (2001) p.3

that are typically contrasted.[99] Evidence suggests that these often contrasted resources are developmentally equivalent in many cases. Oyama cites phenocopying as an example.

> Phenocopying […] occurs when genetic mutations, as well as changes in the outside world, can bring about similar alterations in the organism. There are bithorax mutants in *Drosophila*, but the bithorax phenotype can also be induced by ether. Genes and ether shocks turn out to be developmentally equivalent in this respect.[100]

Cases like this show that phenotypes can be the product of more than one type of resource. Thus, the capacity to draw conclusions about the causal impact of one factor on the basis of phenotypic displays is problematic. This problem also arises in evolution. Phenomena that are frequently contrasted can be equivalent in evolution as well.[101] Different developmental influences can be stable within any lineage. These influences "may follow a lineage equally closely through evolution, even though one is genetic and the other 'environmental'"[102] It may be the case that the extracellular resources are as stable as the intracellular resources in some instances. Resources such as the types of food available may in some cases maintain stability through a lineage, and thus must also be seen as having the capacity to determine phenotypes. If this is the case, then it follows that both intracellular and extracellular resources will play a role in determining the phenotypic displays of an organism. Again the capacity to draw conclusions about the causal impetus of one factor on the basis of phenotypic displays is problematic. However, as mentioned before, the significance of these roles is contingent upon the status of the other. It is not the case that one leads the way, and the other simply interferes or promotes. It is the relationship between the intracellular and extracellular resources that is significant in determining phenotypes. DST is not promoting a dichotomous account

[99] Ibid., p.3
[100] Ibid., p.3
[101] Ibid., p.3
[102] Ibid., p.3

where intracellular and extracellular resources are posited as contrasting factors in the developmental process, but rather the interaction of these resources is seen as prompting traits.

2.1.2 Context sensitivity and contingency

The notion of context sensitivity and contingency in DST draws attention to the manner in which we draw conclusions about the magnitude of any cause. The impact of any cause is contingent upon the status of the rest of the system. As Oyama, Griffiths, and Gray note, "[W]henever a number of causal factors interact to produce an outcome, we should expect that the effect of changing one factor will depend on what is happening to the others."[103] Imagine a scale that has a five pound weight on the left side, and a ten pound weight on the right side, if one then adds five pounds to the left side, it will even out the scale. However, the adding of five pounds to the left side only evens out the scale due to the fact that the right side is holding a ten pound weight. If the weight on the right side were to be changed, then the effect of adding five pounds to the left side will change as well. Thus, the amount of influence that adding weight to one side of the scale produces, is contingent on what is happening on the other side of the scale. DST sees the causal impact of any factor in a similar light. The significance of any changes made to one factor will be relative to the status of all other relevant factors. In the example above, if one ounce of weight was added to the left side when the right side had a thousand pounds on it, the significance of the added ounce would be nearly null. We cannot gauge the impact of any one casual factor in isolation from the others. No causal factor exists in

[103] Ibid., p.3

isolation, and thus little information can be gathered from attempts to make claims about causal factors in isolation.

2.1.3 Extended inheritance

Extended inheritance refers to the idea that organisms inherit a multitude of resources that mutually interact to construct that organism's life cycle.[104] This calls into question accounts that view genes as the only thing inherited. Oyama explains that "DST insists on a definition of inheritance that explicitly recognizes the wide range of resources that are 'passed on' and thus available to reconstruct the organism's life cycle."[105] Thus, DST does not see the gene as the only heritable resource, nor any other resource as the only heritable resource. In support of this account Griffiths and Gray note that

> In multicellular organisms the parental generation typically contributes extracellular resources. An ant in a brood cell is exposed to a variety of chemical influences that lead it to develop as a worker, a queen, or a soldier. A termite inherits a population gut endosymbionts by coprophagy. In viviparous organisms the environment of the womb provides not only nutrition but also a range of stimulation essential for the development of the nervous system. This stimulation continues after birth.[106]

The lesson to be learned is that there are numerous resources that are consistently passed on, and many of these are not genetic. According to Griffiths and Gray, "[T]he concept of inheritance is used to explain the stability of biological form from one generation to the next."[107] If there are reliable resources which are passed on to the following generation, and these resources are non-genetic, but play a role in why each generation shares such close similarities to the next, then there is reason to expand the notion of inheritance to

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[104] Ibid., p.2
[105] Ibid., p.3
[106] Griffiths and Gray, "Darwinism and Developmental Systems" found in Oyama, Griffiths, and Gray (2001) p.195
[107] Ibid., p.196

include these types of resources. DST does just this: "DST applies the concept of inheritance to any resource that is reliably present in successive generations, and is part of the explanation of why each generation resembles the last."[108] By allowing these other resources into the conversation, DST avoids the problem of overlooking potentially valuable resources in the evolutionary process.

In addition, DST sees niche construction as playing a significant role in inheritance. Oyama suggests that one aspect of inheritance that needs to be taken into consideration is the effect that the participation of an organism has on the construction of its niche.[109] The local environment is constructed by past generations of the same species, as well as other species. For example, there has been considerable change in the amount of undeveloped land since the invention of the automobile. The increased use of the automobile has led to the need for more highways and parking structures. This in turn has led to changes in the landscape. This change in landscape has forced many species to abandon their habitat and relocate. This relocation forces changes on the habitat of the species who reside in the areas of relocation. This change in habitat then forces changes on the behavior of the species that reside in these areas of relocation, and in turn this change in behavior can force more changes to the local environment. The local environment changes as the behavior of species change, and the behavior of species change as the local environment changes. Thus, the local environment into which any organism is born has been shaped by a multitude of factors, and all these factors need to be considered when attempting to offer explanations for the development of inherited traits. In short, the local environment is one of many inherited resources, and the

[108] Ibid., p.196
[109] Oyama, Griffiths, and Gray (2001) p.4

development of this local environment is in part due to niche construction. DST promotes an expanded definition of inheritance, and this includes genetic as well as non-genetic factors. Further, in promoting an expanded definition of inheritance, DST investigates the various roles played by these diverse resources, but in doing so, does not split them into two opposing factors. Thus, for DST one set of resources is not seen as "nature," and the other as "nurture," Rather, as Oyama suggests, "we should think of heredity […] as the ways in which developmental *resources* or *means* become available to the next generation."[110]

2.1.4 Development as construction

According to DST, the life cycle of an organism is developmentally constructed, not preformed or programmed.[111] Current preformationist accounts posit that "the information that programs development is preformed in the genes."[112] All other factors are seen as simply supporting or interfering aspects of development. The gene leads the way, and these other factors take a back seat. Under this account traits or representations of traits are transmitted to offspring rather than being reconstructed in development. Thus, under such a view, the life cycle of an organism is explained by the effect that the environment has on the genes. The gene is portrayed as the steady force, and other factors are thought to be influencing the possible phenotypic outcomes of the gene. However, these possible phenotypic outcomes are limited by the genes. In other words, the

[110] Oyama, Susan. (2000). *Evolution's Eye: A Systems View of the Biology-Culture Divide*. Durham and London: Duke University Press, p.87
[111] Oyama, Griffiths, and Gray (2001) p.4
[112] Ibid., p.4

information that programs development in the genes dictates the range of possible outcomes, and all causal factors outside the gene simply aid in directing development towards one of these preprogrammed outcomes. In this sense, the gene is seen as the primary determinant of an organism's life cycle, while other factors are seen as playing secondary roles in the development of the life cycle. The preformationist account sees the life cycle of an organism as the result of the passing down of certain immutable traits. These traits manifest in the following generation in much the same manner as they did in previous generations. They are not reconstructed in each following life cycle, but simply passed down. In contrast, DST posits that the life cycle of an organism is engendered "through interactions between the organism and its surroundings as well as interactions within the organism."[113] However, these interactions should not be seen as promoting any one causal factor to the role of primary determinant. Traits are reconstructed in development rather than being passed down to offspring.[114] Thus, the stability of each subsequent life cycle is not simply the result of the transmission of these traits, but the result of the stability of the organism's local system.

2.1.5 Distributed control

The notion of distributed control calls into question approaches that identify a specific resource as the primary determining factor in the process of development. These approaches pinpoint "one type of resource as controlling and directing the process, leaving other interactants to function as background conditions, raw materials, or sources

[113] Ibid., p.4
[114] Ibid., p.2

of disturbance."[115] In contrast, DST does not endorse any one interactant as controlling development. Instead, it supports the notion that these "other" interactants contribute to development through more than just interference. Oyama, Griffiths, and Gray note that "[L]ocating information in a single type of developmental resource obscures the context-dependency of causation by localizing control."[116] Thus, in order to give an accurate account of development it is necessary to offer a more complex story, and part of this story according to a systems perspective involves an account of the ways in which developmental resources are inherited and evolve, and this includes more than just talk of genetic blueprints and programs.[117] For example, among other things, DST requires that we think about the ways developing organisms act as a resource for their own development.[118] Accordingly, proponents of DST argue that there is at the very least a heuristic value to the idea that the passing on of developmental information is context dependent.[119]

2.1.6 Evolution as construction

Evolution as construction views the evolution of organism and environment as interdependent. As Oyama, Griffiths, and Gray assert, "[J]ust as there are no preexisting representations or instructions that shape organisms from within, there are no preexisting niches or environmental problems that shape populations from without."[120] Thus, DST

[115] Ibid., p.5
[116] Ibid., p.5
[117] Ibid., p.5
[118] Ibid., p.5
[119] Ibid., p.5,6
[120] Ibid., p.6

promotes the idea that evolutionary change is the result of mutual interaction between a population and its environment.[121] It is not the case that the evolution of organisms is the result of adaptation to a static environment. The environment is not static anymore than the organisms inhabiting that environment. The relationship between an organism and its environment is dialectical. Each informs the other, and thus the changes that take place to both the organism and the environment are not in response to each other as isolated entities, but rather the result of a change in relationship. This change in relationship results in a change to the developmental system of which each is part. Thus, we might think of evolution as change in the developmental system.[122] To help clarify, imagine a couple that is going through a struggle to maintain a relationship. The focal point of the struggle is not on either individual as an isolated entity, but rather on the relationship itself. It is not the individual that is at stake, it is the relationship that is at stake. Thus, changes made by either individual are not in response to the other individual as an isolated entity, but are instead made in response to the individual as part of the relationship. In other words, the changes are made in an attempt to sustain the type of individual needed to maintain the relationship, not to sustain the individual as an isolated entity. These changes aid in the sustainability of the relationship, but also aid in the sustainability of the type of individual needed to be in the relationship. So, if P^1 and P^2 are in relationship type *W*, and wish to be in relationship type *X*, and relationship type *X* requires that P^1 make changes that result in P^1 being of type *Z*, and P^2 make changes that result in P^2 being of type *R*, it is not the case that P^1 or P^2 need be of type *Z* or *R* in order for P^1 or P^2 to sustain in the current relationship, but rather that that they must be of type

[121] Ibid., p.6
[122] Ibid., p.6; Oyama, Susan. (2000) p.81

Z or *R* in order for P^1 and P^2 to change to, and sustain in, relationship type *X*. Further, it is not the case that P^1 changing to type *Z*, and P^2 changing to type *R*, is the result of one changing in response to the other, but rather it is the result of the change in relationship between P^1 and P^2. Thus, in changing to, and sustaining in, relationship type *X*, both P^1 and P^2 change in a manner that makes them the type of individuals needed to change to, and sustain in, relationship type *X*. In this sense, the changes made to ensure both the switch from relationship type *W*, to relationship type *X*, and the sustainability of relationship type *X*, require that both P^1 and P^2 sustain the changes that make them type *Z* and *R*. If they cannot sustain such changes, then the capacity to change to, and sustain in, relationship type *X* will be lost. Thus, the change to relationship type *X* will fail, and because the relationship fails, P^1 and P^2 will also fail to have changed to type *Z* and *R*, and sustained type *Z* and *R*. In other words, relationship type *X*, P^1 type *Z*, and P^2 type *R*, are all codependent on each other. If one fails, all fail. If they succeed, then the change should be viewed as a change in relationship, not simply a change in one of the individual parts of the relationship in response to the other, but a change in the relationship as a whole, and this change is the result of mutual interaction. Further, this change in relationship results in a change to the system of which each is part. Thus, the system changes as a result of this dynamic interaction. The idea is that in making this change the different parts of the system coevolve.[123]

Now, if we think of evolution as change in the developmental system, then we must understand it as involving changes to the pattern of development of individuals within that system. Oyama, Griffiths, and Gray note that

[123] Oyama, Griffiths, and Gray (2001) p.6

> If evolution is change in developmental systems, then […] it is no longer possible to think of evolution as the shaping of the organism to fit an environmental niche. Rather, the various elements of the developmental systems coevolve. Organisms construct their niches both straightforwardly by physically transforming their surroundings and, equally importantly, by changing which elements of the external environment are part of the developmental system and thus able to influence the evolutionary process in that lineage.[124]

So, evolution is not the result of organisms adapting to environment, or environment adapting to organisms, it is the result of change in developmental systems.[125] Thus, for DST, "evolution is not a matter of organisms being molded by their environments, but rather the result of organism-environment systems changing over time."[126] If this is the case, then it seems advisable to drop notions of evolution that see it as simply the adaptation of the organism to its environment.

2.1.7 Conclusion

In short, DST claims that the interdependence of the system makes isolation of any determinant problematic. Developmental systems theorists want to reconceptualize ontogeny in a manner that displays the difficulty involved in clearly demarcating the divide between gene and environment, culture and biology, and inherited and learned traits. Information, whether on the micro level, or on the macro level, is mutually constructed through the interaction of organism and environment; however, since the environment includes the organism, even this divide cannot be easily delineated. Consequently, the nature/nurture dispute itself is called into question due to the inability to clearly assess the amount of individual involvement either side has in ontogeny. In

[124] Ibid., p.6
[125] Ibid., p.6
[126] Ibid., p.2

fact, the capacity to even distinguish between the two sides is questioned. Thus, there is no reason to define any one determinant as the primary determining factor in the development of anything. So, if we wish to have an explanation of evolution and development that is dynamic enough to account for the complexities involved in these processes, then DST seems to offer a viable alternative.

2.2 Some Implications of Accepting DST

Now that we have at least a working understanding of DST, we are prepared to examine the implications of its acceptance. I begin with an examination of the challenges that DST produces for essentialism and preformationism**,** then I investigate Oyama's reconceptualization of "the natural," and how it challenges certain concepts of nature and nurture. Finally, I offer a cursory account of the general ethical implications involved in accepting DST. Later in Chapter Five, I examine in greater detail these implications, and the consequences Oyama's reconceptualization of "the natural" has on attempts to naturalize ethics.

2.2.1 DST's Challenge to Essentialism and Preformationism

Strong essentialist accounts of biology have fallen out of favor for the most part; however, there are nuanced versions of essentialism still in play in some disciplines. Oyama notes that "[T]he essentialist idea of a privileged developmental pathway and

phenotype is very much alive in biology, psychology, and anthropology."[127] Further, Griffiths and Knight claim that the preformationist "[…] idea that genes specify traits is alive and well in evolutionary thought."[128] In contrast, DST is committed to offering anti-essentialist and anti-preformationist accounts of development. Thus, DST challenges any notion of development that supports privileged developmental pathways and phenotypes, as well as those accounts that claim that genes specify traits.

Oyama notes that the positing of privileged developmental pathways and phenotypes is typically "expressed in terms of biological bases or propensities."[129] To claim that organisms are inclined in one way or another due to biological underpinnings is to miss the complete story. This story suffers from some of the same problems that we see with accounts that posit some kind of static nature to organisms. The basic idea behind these types of accounts, as Oyama points out, is that species have essences "which will tend to be expressed as long as there is no interference."[130] The claim is that there exist particular pathways or phenotypes which are privileged, and when these privileged pathways or phenotypes fail to emerge, it is due to "interference." Exactly how these accounts make this distinction is called into question by proponents of DST. The so-called "interference" is portrayed by advocates of DST as part of the developmental story. Rather than seeing these influences as interrupting an individual's genetic propensity or biological potential, and thus circumventing the "intended" phenotype, these supposed extraneous influences are not given a marginalized role in development, but rather are seen as part of the complete story. In this sense, DST denies that there are

[127] Oyama (2000) p.91
[128] Griffiths and Knight (1998) p.255
[129] Oyama (2000) p.91
[130] Ibid., p.82

privileged developmental pathways and phenotypes. Now, this does not mean that advocates of DST see all developmental influences as equally important, but it does call into question the merit of drawing metaphysical distinctions based on these differences,[131] and this is exactly the sort of distinction being made when one asserts privileged phenotypes or pathways.

Further, talk of privileged or intended phenotypes seems to import a teleological element into development. In order to posit a phenotype as "intended" or "privileged" it seems necessary that there be some sort of "plan" or "blueprint" to reference. There seems no other way for one to know that the intended outcome has been interrupted. But, who writes up this plan? Without an "author" there seems no way of knowing the "intended" outcome of this plan. Evolution is not a teleological doctrine, it is not a story about how things are *supposed* to be, but rather a explanation of why things are the way they are. Part of this story involves the regularity in which non-genetic resources are reproduced. Genetic influences are only part of the story, and although they may exhibit a certain amount of stability, this stability is in part a reflection of the stable reproduction of other resources. Thus, it must be recognized that these supposed privileged phenotypes are not simply the result of some biological propensity, but also the result of other stably reproduced influences such as the types of energy-producing material available. If the kinds of food available to a given organism change, then other changes should be expected, and these changes may eventually be seen at the genetic level. In short, the stability of genetic influences and outcomes is only as stable as the system in which these outcomes and influences reside. So, if in an attempt to avoid teleological explanations, advocates of privileged pathways and phenotypes look to the stability of genetic

[131] Griffiths and Knight (1998) p.254

resources to make their case, they are only looking at part of the story. DST challenges us to look at the complete story. It promotes a different heuristic, one that refuses to marginalize any developmental resource, and forces us to pay attention to the complexities involved in the emergence of seemingly stable (or non-stable) outcomes.

In addition, from a philosophical perspective, the DST heuristic problematizes claims that rely on the use of Aristotelian essences. Here I am thinking of claims that involve, *ceteris paribus*, the notion of a "proper" function or form.[132] So, borrowing from Oyama, we might think of these things, as what will be the case if nothing interferes.[133] However, as mentioned previously, from the heuristic of DST, these "interfering" influences are not portrayed as interference. The capacity to recognize the "proper" function or form of any phenotype is called into question when the heuristic in use refuses to distinguish between which developmental resources are interference, and which are not. If no resources are seen as interference, and the function or form of any phenotype is constructed out of the interaction of these resources, then the capacity to distinguish *what is* the proper function or form of a phenotype from what *is not*, is problematized. In other words, the meaning of the statement, "what will be if nothing interferes," no longer applies. *Ceteris paribus* clauses are obviated. Either there is no "interference" or everything is "interference." Thus, claims about what *is* or *is not* the "proper" function or form of a phenotype can no longer be supported by this distinction.

Moreover, the use of the term *ceteris paribus* becomes more complex when examined from the perspective of DST. From a DST perspective what we are really

[132] Here we might think of Philippa Foot's book, *Natural Goodness*, where she attempts to offer an account of natural normativity that rests on a Neo-Aristotelian account of naturalism. She uses the relation of an individual to what she calls the 'life form' of its species to support normative claims about individuals.
[133] Oyama (2000) p.91

talking about is stability in the reconstruction of a life cycle. The use of the term *ceteris paribus*, then, must indicate that the resources involved in the construction of the phenotype in question, *are* reliably reconstructed in each life cycle. This would include both phylogeny and ontogeny. As Oyama notes, according to DST, traits must be constructed in ontogeny.[134] Thus, the reliability of any trait is contingent on the stability of the influences present during construction. If these influences lack stability, and undergo change, then we might say that "all other factors have not remained the same;" however, if all resources constructed in phylogeny and ontogeny are stable, then from a DST perspective, it seems okay to claim that "all other factors have remained the same." Oyama suggests that "[…] we should think of heredity not as the transmission of *traits* between organisms, […] but rather as the ways in which developmental *resources* or *means* become available to the next generation."[135] From the perspective of DST, resources becoming available to the next generation in a reliable and stable manner is what must be meant by the term *ceteris paribus*. But note, this is a much more complex story than the one we get if we use Aristotelian-like essences in order to make claims about the "proper" function and form of phenotypes. *Ceteris paribus* in these cases will not take into consideration all of the resources involved in phylogeny and ontogeny, but rather only those that appear to interfere with the emergence of the so-called "privileged" pathways or phenotypes.

[134] Ibid., p.87
[135] Ibid., p.87

2.2.2 DST's Challenge to the Biology/Culture Divide

A further challenge that DST offers regards the notion that there is a clean distinction between biological evolution and cultural evolution. Griffiths and Gray assert that "[T]his distinction rests on a distinction between genetically transmitted and environmentally acquired traits,"[136] where cultural evolution is seen as the result of traits being passed on through learning, and thus environmentally acquired, and biological evolution is seen as the passing on of traits through genetic transmission. In contrast, DST denies the capacity to divide these traits into these two categories. Griffiths and Gray argue that:

> The means by which traits are reconstructed in the next generation are varied, and do not admit of any simple twofold division […]. Instead, all traits that are typical of a lineage are subject to a form of evolutionary explanation that describes how developmental processes replicate and differentiate into lineages as part of an adaptive-historical process. Many elements of the developmental systems associated with these processes can be given evolutionary explanations. Some of these will be elements of the traditional organisms, such as genes. Others will be elements of culture, such as the social structures that are required for the replication of evolved psychological traits in humans.[137]

Culture is seen as one of the developmental resources involved in the evolution of traits.[138] As noted earlier, Oyama claims that traits are constructed in ontogeny, and part of this ontogeny is the result of cultural influences. Griffiths and Gray explain that culture has been with us well before we were humans, and that culture is one of the developmental resources at work in the construction of our traits.[139] Thus, the line between biological evolution and cultural evolution begins to collapse. They further assert that "[M]any species typical features of human psychology may depend critically

[136] Griffiths and Gray (1994) p.301
[137] Ibid., p.302
[138] Ibid., p.302
[139] Ibid., p.302

on stably replicated features of human culture."[140] Going back to the discussion of *ceteris paribus*, I argued that the reliability and stability of phylogeny and ontogeny is what the advocate of DST must mean when using the term *ceteris paribus*. Thus, when talking about species typical features, it follows that these features would depend critically on stably replicated features of human culture. In other words, in order to even claim that there are such things as *typical* features, there needs to be some amount of stability in the reproduction of one's developmental resources, and it seems clear that for advocates of DST, that human culture is one of these developmental resources. Further, if culture is portrayed as a developmental resource, and human biology is constructed out of these different resources, then this means there is a social aspect involved in the construction of human biology. Consequently, as Oyama articulates, "Human biology is then not a matter of individuals with fixed internal natures, but of changing natures that are a function of reciprocal relations with environments that always have a social aspect."[141] The collapse of the social with the biological, then gives further reason to think that the biology/culture divide is not justified in a post-essentialist biology or philosophy. Here we really begin to see the consequences of considering phylogeny and ontogeny as involved in mutually constructing each other. It becomes increasingly more difficult to see where one ends and the other begins. Thus, it becomes more and more complicated to make meaningful claims through the use of this distinction.

[140] Ibid., p.302
[141] Oyama (2000) p.171

2.2.3 DST's Challenge to the Concepts of Nature and Nurture: Reconceptualizing the Natural

In her book, *Evolutions Eye*, Oyama claims that "[W]e do not need more conciliatory declarations that nature and nurture are both important, but rather a reformulation of both."[142] She reconceptualizes the notions of nature and nurture in a manner that allows genes and environments to be seen as "parts of a developmental system that produces *phenotypic* natures."[143] She proposes the following reconceptualization of nature:

> *Nature* is not transmitted but constructed. An organism's nature — the characteristics that define it at a given time — is not genotypic (a genetic program or plan causing development) but *phenotypic* (a product of development). Because phenotypes change, natures are not static but transient, and because each genotype has a norm of reaction, it may give rise to multiple natures. […] An organism's nature is simply its form and function. Because nature is phenotypic, it depends on developmental context as profoundly and intimately as it does on the genome. To identify nature with that genome, then, is to miss the full developmental story in much the same way that preformationist explanations have always done.[144]

Nature is not seen as some immutable preexisting program that is transmitted to an organism and functions as the agenda for the development of the organism, but rather it is seen as the product of development. Under this view natures are seen as phenotypic rather than genotypic. If natures are viewed as phenotypic, then it follows that natures cannot be fixed and unchanging, rather as Oyama notes, "[I]nstead of being fixed at conception, natures are multiple and changing over the life span. […] nature is simply a

[142] Ibid., p.48
[143] Ibid., p.48
[144] Ibid., pp.48,49

phenotype—an organism-in-transition through a life cycle […]."[145] Thus, an organism's nature simply amounts to whatever attributes identify an organism at a particular time, and these attributes are the result of developmental processes.

Developmental processes are what Oyama calls nurture. Oyama sees nurture as all developmental interactions and processes that contribute to a life.[146] She claims that nurture is "[…] as crucial to typical characters as to atypical ones, as formative of universal characters as of variable ones, as basic to stable characters as to labile ones."[147] So, the phenotypic outcomes that she calls nature, are the product of the developmental processes she calls nurture. In short, nature is the result of nurture. So, in contrast to accounts that see nature as a guiding principle, with limits to the amount of change that can take place to an organism, and nurture as simply molding nature into whatever form and function that nature allows, she sees nature as the product of development, and thus as the product of nurture. However, this does not mean that nurture is the primary determinant of an organism's nature, as Oyama notes:

> […] Nature and nurture are […] not alternative sources of form and causal power. Rather, nature is the *product* of the *processes* that are the developmental interactions we call nurture. At the same time, that phenotypic nature is a developmental resource for subsequent interactions.[148]

So nature in turn plays a role in the developmental interactions of nurture. In other words, both nature and nurture play a role in the mutual construction of each. In this sense, neither takes on the role of primary determinant. So, although in some sense, nature is the product of nurture, phenotypic natures are a resource for the subsequent developmental

[145] Oyama, Susan (2006). "Speaking Nature" in *How Does Nature Speak? Dynamics of the Human Ecological Condition*. (pp. 49-65). Chuck Dyke and Yrjö Haila (Eds.), series on Ecologies for the Twenty-First Century. Durham, NC: Duke University Press. p.11
[146] Ibid., p.11; Oyama (2000) pp.48,49
[147] Oyama (2000) pp.48,49
[148] Ibid., p.48

processes involved in nurture.[149] Thus, rather than seeing one as the primary determinant of the other, it is more accurate to see them as involved in a mutual construction. In some sense, this clouds the very distinction between the two. As Oyama notes:

> our natures are nurtured because each of us, like any other being, develops, and we develop as wholes, not by sprouting acquired bits from a prepackaged innate core. We develop in many environments, and are constituted by our interactions with these environments. Once nurturing—that is, development—is accepted as an ineliminable and integral part of "biological" nature, it can no longer be contrasted with nature. It cannot represent, for instance, an environmental "outside" to an inherited "inside," or the psychological as opposed to physical.[150]

This account seems to collapse the separation between nurture and nature, thus making it difficult to base claims about organisms on this division. Such reconceptualization forces us to offer a more complete and complex story about the form and function of organisms. It is no longer a case of how much nature or nurture is involved in the production of an organism and its behavior, but rather, is a story about how these things interact, and what this interaction produces. In this sense, DST challenges us to offer a more complex account of organisms and their behavior. Our explanations become more complex; however, this is what is needed to offer the complete story.

2.2.4 General Ethical Implications Involved in Accepting DST

The goal of this section is to offer a cursory account of the possible implications that arise when ethics is informed by DST. I address this issue in greater detail later in the project.

Peter Godfrey-Smith states that

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[149] Ibid., pp.48,49

[150] Oyama, Susan (1999). "The Nurturing of Natures" European Academy Conference: "On Human Nature," Symposium on Genes, Evolution and Human Nature, March 17, 1999. Bad Neuenahr-Ahrweiler, Germany. In Armin Grunwald, Mathias Gutmann, & Eva M. Neumann-Held (Eds.) (2002). *On Human Nature. Anthropological, Biological and Philosophical Foundations* (pp.163-170). Studienreihe der Europäiswchen Akademie. New York: Springer Verlag. p.7

> DST can be regarded as a proposal for a scientific research program. DST contains a set of core negative and positive ideas about biological systems. These ideas do have the ability to steer biological research in particular directions, and they have the ability to be confirmed and disconfirmed through empirical testing.[151]

I maintain that not only do these ideas steer biological research, but due to the capacity to steer biological research, they also affect research in other areas as well. It is clear that biological research has the capacity to inform ethical discussions. There are numerous questions about the nature of sexual orientation, intelligence, gender identity, etc., and many of these questions are examined in light of biological commitments. The answers to these sorts of questions can have a powerful impact on social, ethical, and political positions. Thus, it seems reasonable to see these types of things as being part of the realm of moral discourse. So, if one is committed to DST, then the ideas involved in DST that steer biological research, will also have implications for ethics. DST's denial of strict divides between the various developmental resources leads to different explanations than those arrived at through accounts that posit strict divides between these resources. Therefore, it seems clear that the judgments made about these issues will be affected by the stance one takes on whether or not there is a strict divide between nature and nurture. If one places a strong emphasis on the nature/nurture divide, then the answers to questions about things like sexual orientation will be made in light of this commitment. For example, under such a commitment one may explain sexual orientation as the result of a biological given. If it is seen as a biological given, then moral judgments about sexual orientation may be seen as misplaced.[152] Now, if for example, one thinks the best description of the natural world is one that supports a notion of development as the product of mutual interaction, then one is most likely committed to the denial of

[151] Godfrey-Smith, Peter, "On the Status and Explanatory Structure of Developmental Systems Theory" found in Oyama, Griffiths, and Gray (2001) p.284
[152] Oyama, Griffiths, and Gray (2001) p.1

biological givens all together. Consequently, the judgments made about something like sexual orientation will differ depending upon one's commitments. Thus, if we wish to offer a thorough analysis of such moral/political questions, then it seems imperative that we take into consideration diverse accounts on such matters, and that includes DST.

I argued previously that my branch of naturalism commits me to the notion that we must make use of our best and most relevant empirical theories if we want a better understanding of the world. Like David Wong, I maintain that we must attempt to "integrate our understanding of morality with our best and most relevant empirical theories."[153] In doing this, I argue that we must take to task the possibilities that result from the denial of dichotomy laden methods of discovery, and take seriously the implications that follow from a commitment to DST. We must consider the normative implications of DST.

As explained previously, DST offers an account of development that sees no single developmental resource as any more important than another, rather it places an emphasis on the mutual interaction of these resources. Thus, in assuming DST, any prescriptions made based on the descriptions given by DST must be made in light of this mutual interaction. What follows from doing this is a change in the types of claims that can be supported. Granting DST's destruction of the nature/nurture divide, any claims about what traits should or should not result given a particular phylogenetic background are problematic if not simply impossible. The traits that do emerge are the product of a mutual interaction, and this mutual interaction includes resources that are typically seen as background interference. Thus, in making claims about what traits "ought" emerge

[153] Wong, David (2006). *Natural Moralities*: *A Defense of Pluralistic Relativism*. New York: Oxford University Press, Inc. p.XIV

given a particular phylogenetic background, if one assumes DST, then it is necessary to take into consideration the relationship between all these different resources, and avoid placing an overwhelming emphasis on either nature or nurture. Godfrey-Smith claims that if we grant that no trait is more genetic than any other, as Oyama asserts, then there may not be any reason to hold onto the "standard genetic/environmental distinction between causal factors, given that we have stopped using it to divide up biological traits."[154] Thus, DST may help do away with "the idea that the natural in a biological sense is normal or acceptable in a moral sense, and the idea that biological traits appear inevitable."[155] If phenotypes are contingent upon factors that are themselves contingent, and there is no means for discerning the degree of phylogeny from the degree of ontogeny in any given effect, then we might think that there is no such thing as a normal biological trait.[156] In other words, the contingency of any trait disrupts the capacity for epistemic access to that which "should" be produced naturally *ceteris paribus*. Thus, talk about what trait "should" be produced naturally, seems unwarranted. Furthermore, the loss of such a distinction makes it increasingly difficult to make normative claims based on what is "natural."

A further ethical implication of accepting DST is found in the anti-preformationist stance taken by proponents of DST. The anti-preformationist stance held by Oyama and others makes it difficult to posit any claims about what is a normal phenotype. DST

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[154] Godfrey-Smith, Peter. (2000) "Explanatory Symmetries, Preformation, and Developmental Systems Theory." The University of Chicago Press: *Philosophy of Science*, vol. 67, Supplement. Proceedings of the 1998 Biennial Meetings of Philosophy of Science Association. Part II: Symposia Papers., p.S324

[155] Ibid., p.S324

[156] It is worth noting that there are normative reasons for rejecting moral prescriptions based on what is (statistically) normal; however, DST provides biological reasons for this rejection as well. Thus, we do not *need* to appeal to controversial ethical theories to support this claim. In this sense, biology helps to reinforce a more general position held by some, that it is a mistake to claim that the normal is moral. I owe this insight to Dr. Brook Sadler.

denies that there is a form of the adult structure that preexists any ontogenetic influence. Thus, the ultimate outcome of any structure is contingent upon factors that are themselves contingent upon ontogenetic influences. Granting this assumption, it seems to follow that we cannot make epistemically sound claims about the normality of phenotypes. In an attempt to naturalize ethics, if DST is used as a guiding principle, then the types of claims that can be supported differ dramatically from attempts to naturalize ethics that use dichotomy laden accounts as a guiding principle. Having given at least a cursory account of the possible ethical implications involved in the acceptance of DST, I close this issue for the moment. In Chapter Five, I examine in greater detail exactly how DST can be used to inform a naturalized ethics.

3

DST & Naturalized Autonomy

In the first chapter I argued that if one is committed to naturalism, then one ought be committed to naturalism as a methodological thesis. In the second chapter I examined DST and some of the philosophical challenges it poses. I gave special attention to Susan Oyama's reconceptualization of "the natural," and later I will show how this reconceptualization shapes naturalized ethics. A further avenue of investigation that plays a key role in how we go about forming ethical conclusions concerns the notion of autonomy. Many argue that autonomy is requisite for attributing moral responsibility to an organism. Thus, it seems necessary to examine the implications on autonomy that result from accepting MDN under the umbrella of DST. Following Bruce Waller, I intend to use the term autonomy to mean the potential for alternative actions. This does not mean that the agent has unconstrained control over the decision to take an alternative action, but simply that such routes are in the realm of possibility. The central goal of this section is to define exactly how I use the term, offer an explanation of the necessary conditions for a naturalized account of autonomy, and then look at the possibility of offering such an account under the umbrella of DST. I posit the necessary conditions for autonomy on a naturalized account, and then offer an interpretation of a naturalized account of autonomy within a DST framework (hereafter NADST). In conclusion, I argue

that NADST leads to a non-essentialist account of normativity, and then examine the prospect of attributing moral responsibility under this account.

3.1 Some Necessary Conditions for a Naturalized Account of Autonomy

Marina Oshana asserts that "claims about autonomy can be established *a posteriori* on the basis of natural facts."[157] If this is so, then we might have the building blocks for a naturalized account of autonomy. Oshana claims that there are two conditions that a naturalized conception of autonomy must satisfy: 1) "The properties which constitute autonomy must be natural properties, knowable through the senses or by introspection."[158] 2) The properties that constitute autonomy "must not be restricted to phenomena 'internal' to the agent. In addition, certain objective, "external" properties are required."[159] By external properties Oshana does not mean that there is a need for an external perspective in order to investigate personal autonomy, but rather that "there are certain necessary conditions of autonomy that are themselves external to and independent of the individuals 'internal' character."[160] For example, she claims that "[…] it is a natural, empirical fact that persons are socially situated, and that socially situated individuals are not self-governing unless they are free from interferences that are 'external' in nature and origin."[161] Even if a person removes him or herself from society, by say running off into the jungle to escape other people, this person is still not free from external interferences. After all, there must be some environment that this person dwells

[157] Oshana, Marina. (1994). "Autonomy Naturalized." Midwest Studies In Philosophy, XIX. P.76
[158] Ibid., p.77
[159] Oshana (1994) p.77
[160] Ibid., footnote 2, p.91
[161] Ibid., p.77

within, and the items in this environment external to the individual will no doubt produce what some may call interference. So, for Oshana, a fully naturalized account of autonomy "[…] will treat autonomy as, in part, a function of natural relations that are *extrinsic* to the individual."[162] Consequently, she believes that accounts which posit psychological characteristics of persons as *decisive* for autonomy are non-naturalistic in this sense.[163] As stated previously, following Waller, I use the term autonomy to mean "the possibility for alternative actions." I maintain that this use of the term allows for the satisfaction of Oshana's criterion. I now turn to a defense of this claim.

Waller claims that in order to develop a plausible naturalized account of autonomy-as-alternatives it needs to be an account "based on the vital importance of alternative possibilities in the natural world, rather than on mysterious libertarian agency."[164] In order to flush out what he means, Waller notes a study on the behavior of feral white-footed mice conducted by J. Lee Kavanau. In the study, white-footed mice learn to run through mazes for rewards. Kavanau explains that the mouse even though educated in the correct path to the reward, will still occasionally stray from the correct path. In doing so the mouse is investigating alternative paths. Kavanau claims that although it appears that the mouse is taking the incorrect path, it is only incorrect "from the point of view of the investigators rigidly prescribed program involved in the experiment,"[165] not from the perspective of the mouse's larger interests.

> The basis for these responses is that the animal has a certain degree of variability built into many of its behavior patterns. This variability is adaptive to conditions in the wild, where there are many relationships that are not strictly prescribed.[166]

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[162] Ibid., p.77
[163] Ibid., p.77; She cites the hierarchical, the Platonic, and the historical views of Gerald Dworkin, Gary Watson, and John Christman as accounts that fail this condition.
[164] Waller (1993) p.74
[165] Ibid., p.74
[166] Ibid., p.74

The idea is that if the mouse never strayed from the one true path, then it would be doubtful that it ever discovered the possible benefits of an alternative route. In the wild, if the primary source for food were ever lost, then the failure to explore other routes could leave the mouse lacking a food supply. In exploring alternative routes the mouse gains information about these other routes, and the possible benefits to be found along these routes. Thus, assuming there are benefits to be found, it is in the best interest of the mouse to explore alternative routes. This exploration allows for the mouse to "keep its options open."[167] Notice that in this description there is no need to posit a form of libertarian freedom in order to expose the potential for alternatives. The potential for alternatives in this account is the result of there actually being more than one path available to the mouse. The discovery of these alternative paths is empirical. It is a claim made *a posteriori* on the basis of natural facts, and it is not restricted to phenomena "internal" to the mouse. Thus, at least in respect to the possibility of alternative paths for the white-footed mouse, Oshana's criteria for a naturalized autonomy are met. This says nothing about the mouse's capacity for self-direction; however, it does show that any self direction the mouse might have will be contingent on its relationship with the environment. So, it is not the case that the possibility for alternatives is restricted to phenomena solely "internal" to the mouse, but rather that there is a mutual interaction between the mouse and its environment. Now, as Waller notes, the white-footed mouse is not the "paradigm of autonomy," but it does offer some valuable insight into

[167] Ibid., p.74

autonomy.[168] Let's look at how the story of the white-footed mouse maps on to human autonomy.

Much like the white-footed mouse it is in our best interest to explore alternative routes. Waller asserts that just as the white-footed mouse is occasionally vindicated for taking what appears to be the "wrong" path, human beings too are sometimes rewarded for pursuing a path that in the past displayed no benefits, or one which had benefits that have since perished.

> Humans pursue a path because it is particularly successful, but we do not stop exploring new ones. When the successful behavioral pattern loses its effectiveness we have other alternatives ready. In like manner, we do not entirely abandon the previously successful pattern, and may return to it occasionally (though we know it is unlikely to work). If later the old behavioral pattern again proves beneficial, we are less likely to overlook those benefits.[169]

The fact is that our environment is constantly changing. Evolutionary success is at least partially based on the capacity for plasticity. If we are not malleable, then we risk losing the ability to cope with the complex and constant flux of our surroundings. By continually exploring alternative routes we keep options open, and thus are in a position to capitalize on benefits that would otherwise be overlooked or missed.

Now, it should be clear that such behavior is at least in part directed by the success of the exploration. After all, if it was the case that nothing beneficial ever came from the exploration of alternative paths, then there would seem to be no benefit in pursuing such paths; but, the fact is that we sometimes do continue to pursue paths that either do not offer benefits, or no longer offer benefits. It is entirely possible that one continues to pursue a particular path even though it continues to fail. There is nothing that demands the agent to continue on a fruitful path or abandon a fruitless path, but there does seem to be some incentive to follow the fruitful path rather than the fruitless one. In

[168] Ibid., p.74
[169] Ibid., p.74

an attempt to flush out the incentive behind such behavior patterns Waller draws a connection between the types of patterns involved in maintaining alternatives, and the types of patterns maintained through what he calls "variable interval reinforcement." He claims that "the same pattern of maintaining alternatives can be observed in behavior shaped on a variable interval reinforcement schedule (The schedule that shapes most of our learned behavior)."[170]

> Behavior shaped on a variable interval schedule can be maintained with quite limited positive reinforcement; and when the pattern is almost extinguished, one instance of positive reinforcement revives it to near full strength. That is not invariably a good thing: it causes my deleterious gambling behavior—almost ended by a long losing streak—to regain full intensity following one small payoff. But the overall advantage of having a large range of behavior readily available for changing environments and new contingencies more than balances the disadvantages—for white-footed mice as well as humans. [171]

According to Waller, the sustainability of behavior shaped by a variable interval reinforcement schedule (hereafter VIRS) requires very little positive reinforcement. This does not always lead to advantageous behavior in particular instances. As the gambling example makes clear, the limited amount of reinforcement needed to maintain actions through a VIRS sometimes leads to non-beneficial actions; however, it does not render useless the advantageous nature of these behavior patterns as a whole. The behavior pattern as a whole allows the agent more possible solutions in the long run. If one were to limit exploration to only those paths that have shown promise, then the number of alternatives open to the agent would diminish. The result of diminishing one's alternatives leads to a more limited capacity to attain necessary benefits. Even if, for example, an organism has just a few alternatives, and these alternatives result in a high degree of success—in other words, the organism is almost certain to get what it needs from them—there is still the possibility that these alternatives dry up, or that some other

[170] Ibid., p.74
[171] Ibid., p.74

organism prevents this organism from accessing these alternatives, and if this organism has failed to explore other potential alternatives, then it will be ill prepared to overcome these challenges. In a changing environment, the more limited one's capacity for attaining necessary resources, the more likely it is that one fails to attain such resources. The failure to attain necessary resources may result in the loss of sustainability. In a changing environment, the more alternatives present to an agent, the more possible avenues one has for attaining these necessary resources. Thus, the likelihood of sustainability increases with the increase of alternatives. Now, it is still possible that all available alternatives fail to provide just what one needs, or that these alternatives are so risky that to pursue them would end in certain death, but this does not mean that the *likelihood* of sustainability is compromised by having more alternatives. It might be the case that none of these alternatives do the trick, but having more alternatives seems to at least raise the likelihood that one of them will do the trick. A further objection might hinge on the idea that an organism can put so much energy and time into exploring these alternatives that it begins to detract from sustainability. This is a possibility; however, I maintain that the benefit of having a variety of alternatives outweighs this worry. I argue that in order for an organism to reach the point of diminishing returns as this objection suggests, it would require that in exploring all these alternatives the organism in question failed to secure the necessary resources. This might suggest that the need to explore so many alternatives was necessary. After all, if an organism spends this much energy and time exploring all these alternatives, and does not secure the necessary resources in the process, then none of the explored alternatives provided just what the organism needed. In this case, we might think that the organism did not have enough alternatives. Further,

this does not show that the having of more alternatives is in some way damaging, it only shows that if one attempts to explore all alternatives, then they run the risk of reaching the point of diminishing returns, but this seems to only be a real worry if all explored alternatives fail to provide just what the organism needs. Again, I maintain that having more alternatives seems to at least raise the likelihood that one of them will do the trick. So, in the case of the organism that spends so much time and energy exploring alternatives that it begins to have a negative affect, I think it right to claim that this organism has simply run out of luck or alternatives. Although it may be the case that VIRS sometimes leads to deleterious behavior, due to the ever-changing environment, the benefit of possessing a variety of behavioral alternatives outweighs such disadvantages.[172]

In addition, the shaping of behavior patterns by a VIRS exposes a further reason to reject the libertarian sense of freedom. If at least some of our behavior patterns are reinforced by their success or failure, then the discontinuation or continuation of these behavior patterns is caused by something external to the agent. Namely, the success or failure of the pattern in question. Thus, in such situations, even if it appears that the agents decision to stop or continue a particular behavior pattern is uncoerced, as libertarians claim, the empirical evidence used to motivate this decision is external to the agent, thus there is at least some portion of the decision making procedure that is motivated by factors beyond the control of the agent. In other words, it is the product of a cause, and it seems that there is little difference between being caused and being coerced. Now, one might argue that the decision to base further expeditions on the success or failure of behavior patterns is one that is made by the agent internally. Thus, although the

[172] Ibid., p.74

decision making procedure involves the use of evidence which has been developed outside the control of the agent, the actual decision is solely within the control of the agent. In response, I maintain that the decision making procedure cannot be isolated in this way. Decisions are motivated through the interaction of multiple factors which include the organisms relationship to its environment. Thus, it would be a mistake to claim that the internal influences involved in agential decision making have a privileged position over the external influences, or that the internal influences have less causal impetus than the external influences. In other words, the actual action decided on by the agent is developed out of the relationship between the internal and the external, and neither one should be seen as the primary determinant of the action performed, nor should either be seen as a non-causal factor. I would like to bracket this claim for the time being. I address this response in more detail later in my discussion of DST's contribution to naturalized autonomy. For now, I maintain that as long as we view autonomy as the capacity for alternative possibilities, then there is no problem with admitting that at least some part of our capacity to decide what actions we perform is directed by factors beyond our control. I want to note that I am not maintaining that all behavior patterns are dictated by variable interval reinforcement, but I do maintain that our decision making procedure is made in light of external information that can be established *a posteriori* on the basis of natural facts. This is not to say that there is no "internal" part of the decision making procedure, but rather that both the "internal" and "external" are mutually constructed. Thus, in a sense, there is a collapse between the two, and talk of them in a dichotomous manner seems unwarranted. Again, I address exactly how this works later in the section on NADST.

Returning to how the white-footed mouse's autonomy maps on to human beings, Waller remarks:

> […] autonomy – as – alternatives is grounded in learning strategies that are not the exclusive province of higher-level rational powers, nor the exclusive property of humans. Autonomy involves access to genuine alternatives, and in that sense human autonomy parallels white-footed mouse autonomy.[173]

The learning strategies involved in autonomy–as–alternatives are not the sole property of human beings; these strategies are used across at least some phylogenetic divides. Thus, the capacity to achieve autonomy in this sense is not strictly a human endeavor. Waller admits that human intelligence produces important differences between the autonomy of white-footed mice and humans, but he claims that "even these differences are best understood in terms of their common roots in the exploration of alternative paths."[174] The white-footed mouse relies on a keen sense of smell, sharp eyes, and quick feet to aid in its exploration of alternative paths, whereas the reflective intelligence of humans is our best exploratory device.[175] Thus, a human being that lacks such reflective intelligence would be just as ill equipped to examine possible alternatives as a white-footed mouse deprived of sight and scent.[176] Waller claims that "reason is essential to full human autonomy: reason opens a wide range of possibilities and options, and facilitates careful assessment of those options."[177] Thus, the main difference between humans and the white-footed mouse in respect to exploring alternatives is the device used to perform the exploring; humans use reason and white-footed mice use sight, smell, and nimble feet as the main devices for such exploration. However, Waller points out, that the *reason* used by humans in this sense is not "a *Reason* that closes off alternatives in favor of a

[173] Ibid., p.74
[174] Ibid., p.75
[175] Ibid., p.75
[176] Ibid., p.75
[177] Ibid., p.75

single true path."[178] In fact, he maintains that the use of reason in this sense is "precisely the opposite." In making his case, he argues that Susan Wolf's notion of *reason* found in her book, *Freedom Within Reason*, misses this point.

Wolf argues for a notion of *reason* that appears to close off alternatives in favor of a single path.[179] She sees reason as something that one would not want to act in opposition to. She writes:

> To want autonomy, then, is not only to want the ability to make choices even when there is no basis for choice but to want the ability to make choices on no basis even when a basis exists. But the latter ability would seem to be an ability no one could ever have reason to want to exercise. Why would one want the ability to pass up the apple when to do so would merely be unpleasant or arbitrary?[180]

Thus, Wolf maintains that reason is the thing we want to use when making choices, and to desire otherwise is something that one could never want to actually put into application. So, even though in wanting autonomy one may wish to have the capacity to act in opposition to reason, one will not actually want to put this capacity to use. Waller asserts that Wolf's notion of reason leads to the use of *reason* as a device to "discover the single true path," and that the use of reason as the one true single path is problematic for the attainment of natural autonomy–as–alternatives. Waller points out that

> from the perspective of natural autonomy – as – alternatives, one might want to pass up the apple—the most desirable and reasonable option, on this particular occasion—in order to discover new sources of fruit for when the apple harvest is exhausted.[181]

Thus, the use of single path reason limits the number of possible alternatives available to the agent, and as such, may in the long run promote a behavior pattern that is deleterious. So, although in any one instance following reason in the single path sense may lead to an immediate reward, to solely follow reason does not promote the most advantageous

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[178] Ibid., p.75
[179] Wolf, Susan (1990) *Freedom Within Reason*. Oxford: Oxford University Press.
[180] Ibid., p.55
[181] Waller (1993) p.75

behavior pattern as a whole. Thus, at least according to Waller, the use of reason as a device to limit alternatives is not always in our best long term interest.

It is clear that reason functions in a different manner for Wolf than it does for Waller. Waller thinks that reason opens options, and Wolf thinks it aids in limiting options to those things that are most useful. However, in Waller's critique of Wolf he attributes a faulty consequence to her notion of reason. Waller claims that Wolf's notion of reason will lead to the closing off alternative paths, but closer inspection reveals that Wolf's claim does not imply such a consequence. Wolf's claim only asserts that it seems no one could ever *want* to exercise the capacity to choose in opposition to reason. She does not claim that no one *can* exercise this capacity, or even that no one ever will exercise this capacity. Further, her assertion does not commit one to the notion that such a capacity is removed by the possession of reason. Thus, it seems that Wolf's notion of reason does not entirely rule out the possible alternative of choosing in opposition to reason's dictates. It only points to the possibility that reason might interfere with one's desire to act in opposition to reason's dictate. But, it is not unusual to witness human beings acting in opposition to their desires or to reason. In fact, Wolf states later that "[T]o want autonomy is to want the ability to make a more fundamental choice, the choice of whether to act in accordance with Reason or not."[182] Thus, simply because Wolf's notion of reason leads to a lack of desire to choose or act in opposition to reason, does not necessarily mean this avenue is closed.

In response to Wolf's assertion that no one could ever have reason to want to exercise the ability to make a choice on no basis, even when a basis is present,[183] I

[182] Wolf (1990) p.56
[183] Ibid., p.55

maintain, in line with Wolf's own claims, that even though one may never want to put such a capacity to use, this does not eliminate the possibility that the capacity to do so exists. Thus, the capacity to act in opposition to reason may be available as an alternative, even if one never desires to apply this capacity. However, Wolf's assertion that "[T]o want autonomy is to want the ability to make […] the choice of whether to act in accordance with Reason or not,"[184] seems to place reason in the role of primary determinant. It establishes a dichotomy between reason and everything else. I argue that to promote reason as the primary determinant of our actions places a constraint on our actions that need not be there.

In addition, unlike Waller, I am not claiming that single path reason interferes with the capacity to expand our options, it only interferes with the *desire* to act in opposition to reason. Now, if the lack of desire to act in opposition to reason interferes with the capacity to expand our options, it would prove problematic for a naturalized account of autonomy-as-alternatives. However, as I stated previously, it does not interfere with the *capacity* to act in opposition to reason, it only effects the *desire* to put the capacity into application, and this is not enough to remove the option to apply this capacity all together. Thus, this option is still available.

In contrast, to assert reason as the primary determinant of our actions and choices does interfere with the capacity to offer a naturalized account of autonomy-as-alternatives because it closes off possible alternatives. In fact, the use of reason, or any faculty for that matter as the primary determinant for what actions we perform interferes with the capacity to possess natural autonomy-as-alternatives. To clarify, if reason is the primary faculty human beings use to determine what actions we perform, then it places an

[184] Ibid., p.56

unnecessary constraint on how we establish available alternatives. As Waller states, it may be the case that reason is a large part of how we determine what actions we will or will not execute; however, to establish reason as the primary determinant means that in all cases when we act autonomously we will conform to the demand of reason. But, this clearly leaves a large array of alternatives out of the equation. Simply because human beings possess reason, does not mean that we ought not allow other alternatives to inform or actions in some instances. Now, Waller might claim that reason itself dictates that it is in our best interest to act in opposition to reason in some instances—as in the case of Wolf's apple. Thus, to use another device, such as inclination, to determine what choice or action we execute is simply the consequence of following *reason's* dictate, and thus *reason* is still acting as the primary determinant. *Reason* is the faculty that determined that we ought follow one of these other possible devices. However, I argue that this does not mean that reason is promoted to the primary determinant. It only shows that it is one of many determinants in play at all times, and that sometimes it (reason) will recommend using one of these other possible determinants. If in contrast, we recall Schiller's critique of Kant,[185] on which it is possible that one is simply *inclined* to use reason as the primary determinant, then it can be shown that this leads to a similar problem; it leads to the notion that using reason as the primary determinant is simply the consequence of following the dictate of an inclination. Thus, in this case, inclination is acting as the primary determinant; inclination is the faculty that determined that we ought follow another possible determinant. Similar claims can be made *ad infinitum*, and thus seem of little use. I argue that it is best to abandon the view that we possess a primary determinant

[185] Schiller, Friedrich (1867) *On Grace and Dignity*. Found in Curran and Fricker (2005) *Schiller's "On Grace and Dignity" in its Cultural Context*. Rochester, NY: Camden House.

for autonomous actions.[186] The basic idea is that autonomous actions can be accomplished in more than one manner. For human beings, reason is just one of the interactants involved in the development of autonomous actions.

In addition, I maintain that autonomy can be identified empirically. If the white-footed mouse is locked in a room, then there is only one available path; to stay put. All other available paths are closed off, and thus, the white-footed mouse is lacking possible alternatives. There is only one path the mouse can explore. The mouse must stay put, it cannot do otherwise, there are no other available options. Thus, the white-footed mouse has no autonomy in this case. Notice that in this example the white-footed mouse's lack of autonomy is established *a posteriori* on the basis of natural facts. It is an empirical statement. Now, if there is a door in the room, and that door leads to one path, then the white-footed mouse has at least two available options; stay put or follow the path. I argue the white-footed mouse, in this situation, has the capacity to be autonomous. However, if the mouse had more alternative paths, or if it had more alternative faculties, then it would have the capacity to be more autonomous.

One might question whether having too many options might in fact inhibit the decision making capacity of an organism. Perhaps, having innumerable options might leave one unable to decide what to do; however, this does not thwart the capacity to be autonomous in the same manner as having no options. Having no options makes it impossible to be autonomous, having too many may in some cases make it difficult to be autonomous, but it does not eliminate the possibility altogether. Having more options at least offers the possibility for an organism to be more autonomous. To clarify, by more options I mean either one or both of two things: 1) Having more available paths. 2)

[186] I address this argument in detail later in my discussion of NADST.

Having more available faculties. So, if there are more available paths present, then the organism has more possibilities to follow, and thus has at least the possibility to be more autonomous than if it had fewer available paths, and if the organism has more available faculties to draw upon, then it has at least the possibility to be more autonomous than if it had fewer available faculties. Under faculties I include eyesight, reason, inclination, and instinct.[187] So, an organism that possesses just instinct has fewer available options than one that possesses reason and instinct, and the organism that possesses more available options, has the possibility of being more autonomous. Whether the organism actually becomes more autonomous is another question—a question that appears to be answerable only on a case by case basis.

So, rather than viewing autonomy as an absolute, where one is either autonomous or not, the naturalistic framework that I endorse allows for one to be more or less autonomous. This denial of autonomy as an absolute results in a more dynamic and complex notion of autonomy. So, although reason plays a role in autonomy, it does not necessarily play the *primary* role in determining whether an organism is autonomous. In contrast, I maintain along with Wolf, that the capacity to abandon reason, if one possesses reason, is necessary[188] in order to achieve autonomy; however, in contrast to Wolf, it is not the primary basis for achieving autonomy. I see reason as one of many possible interactants involved in the development of autonomy, and maintain that no interactant takes on the *primary* role in this development. This is a place where DST has

[187] I explain this in more detail later in the section on NADST. Certainly there are more faculties than just these few, but hopefully this helps offer an idea of what I mean by faculty.
[188] To be clear, it is only *necessary* for those organisms that possess reason. Autonomy in general does not require the capacity to act in opposition to reason *necessarily*, it is only a sufficient condition for autonomy in general. I address this idea in more detail later in the chapter.

the capacity to inform our understanding of autonomy. Later in the following section I address in more detail how DST lends itself to this interpretation.

3.2 A Naturalized Account of Autonomy under DST (NADST)

In offering an account of NADST the idea is to take the standing formulation of naturalized autonomy sketched in section 3.3, connect it with Developmental Systems Theory, and evaluate the result of the connection. In doing this, I seek to answer the question: Does DST contribute anything useful to naturalized autonomy? I claim that the answer to this question is "yes." I maintain that a naturalized approach to autonomy allows for autonomous actions to be viewed as an outcome of a developmental system. This view would then see autonomous actions as developed from the resources and interactants within the system.

As noted in the synopsis of DST sketched in chapter two, Griffiths and Gray maintain that "[…] we might define a developmental system as the sum of the objects that participate in the developmental process, or alternatively, as the sum of the developmental resources."[189] Susan Oyama describes a developmental system as a shifting complex of heterogeneous elements that includes the organism and all features of its surroundings. Further, she maintains that there is no category of interactants that is privileged *a priori* as the primary local of causal control.[190] The common idea implicit in these descriptions is that developmental productions cannot be explained by reference to one dominant causal force, but rather must be explained through the relations of each to

[189] Griffiths, P.E. and R.D. Gray. "Developmental Systems and Evolutionary Explanation." *The Journal of Philosophy*, vol. 91, no. 6 (Jun., 1994). p.291
[190] Oyama (1985, 1999, 2000, 2001, 2006)

the other. As Oyama notes, "[…] any factor's role in the system depends on its relations with the others."[191] Further, Oyama claims that the environment is included in the developmental system, and thus she eliminates the idea that the environment is simply a location.[192] Thus, any item that is the result of this development, including the environment, must be seen as a heterogeneous production. In other words, it is the result of mutual construction. Thus these items are not simply guided or constrained by one primary determinant.

Waller uses the constantly changing environment to promote the value of possessing alternative possibilities. Accordingly, he sees the having of these alternatives as aiding in the sustainability of the organism, and the availability of this alternatives as the result of the environment in which the organism resides. Thus, the use of these alternatives by an organism is seen as a response to the environment. So, in this sense, the organism is seen as separate from the environment. NADST reformulates this claim into one about the system as a whole. Thus, claims of an isolated environment that determines the production of these alternatives, claims that see the construction of these alternatives as products of the environment, or claims about organisms using these alternatives in response to the environment, are problematized. It is not simply a matter of organism responding to the environment, alternatives being constructed by the environment, or alternatives simply aiding in the sustainability of the organism, but a matter of how the sustainability of the organism informs and is informed by the system of which the organism is part, thus resulting in the construction of these alternatives. Assuming

[191] Oyama (2006) "Speaking Nature" in *How Does Nature Speak? Dynamics of the Human Ecological Condition*. (pp. 49-65). Chuck Dyke and Yrjö Haila (Eds.), series on Ecologies for the Twenty-First Century. Durham, NC: Duke University Press. p.12
[192] Ibid., p.3

NADST, it is not the case that autonomy-as-alternatives is a response to the environment, it is the result of the development of the system as a whole. Looking back at the white-footed mouse, alternative possibilities can be explained as the result of heterogeneous productions. They are the result of the mutual construction involved in the development of the organism and the environment. In other words, these alternatives are the result of the interactants that constitute the system. So, alternatives become a component in the sustainability of the system, which includes the organism and the environment. The actions that become available to the organism through these alternatives aid in the sustainability of the organism, but the sustainability of the organism informs the environment of which the organism is part. In other words, niche construction plays a role in the development of these alternatives and these alternatives play a role in not only the sustainability of the organism, but also the system of which the organism is part.

3.2.1 The Denial of a Primary Determinant for Autonomous Actions

Going back to the claim that it is best to abandon the view that we possess a primary determinant for autonomous actions, NADST helps to show why this claim is warranted. Following Oyama's claim that in a DST "[T]here is no single, centralized control of the processes of development,"[193] it follows, under NADST, that it is not necessary to posit reason, inclinations, environmental factors, or any other element as the primary determinant of autonomous actions. All these elements are best seen as part of a system in which the relationships among them all play a role in determining our actions and choices.

[193] Ibid., p.12

As discussed earlier, the view that there are privileged developmental pathways and phenotypes is challenged by proponents of DST. This view typically sees particular pathways or phenotypes as privileged, and when these privileged pathways or phenotypes fail to emerge, it is claimed that it is due to "interference." This is eerily similar to the notion of reason that Waller accuses Wolf of using. Remember, Waller sees Wolf's notion of *reason* as one that closes off alternatives in favor of a single true path. Claiming that reason is the single true path implies that it is privileged. Wolf sees reason as the highest faculty there is, and thus, as the faculty that ought be used to motivate action. [194] She sees no basis for acting in opposition to reason. In other words, non-rational motives are subsidiary to the dominant role played by reason. So, when a faculty other than reason plays a role in the motivation of an action, this other faculty must be seen as interfering with reason, and thus interfering with the capacity to follow the single true path, that is the path that has been deemed privileged. NADST sees the motivation of an action as the result of a heterogeneous process. It sees action as the result of development, and development as comprised of the interaction between various factors. So, for an organism that possesses instinct, inclination, and reason, action is the result of at least the interaction between instinct, inclination, reason, and environment. Even when one appears to be following the dictate of reason, it must be noted that reason has been informed by these other factors, and these other factors informed by reason. To be clear, what is at issue is the capacity to isolate any of these factors. They are all informed by each other, and are all the result of this mutual informing. Thus, for NADST, when a factor other than reason plays a role in motivating action, it is not seen as interference, it is simply part of the process involved in the development of the action. Again, action is

[194] Wolf (1990) p.56

the result of a heterogeneous process, and no single resource, interactant, or element is seen as privileged. Thus, to claim that one interferes with another, is to miss the point. There is no interference, only mutual construction. NADST asks for a more complex explanation for the motivation of an action. It does not accept that reason is a faculty in isolation from these other factors, nor that these other factors are in isolation from reason. In this sense, it collapses the distinction drawn by Wolf and others between reason and other forms of motivation.

An example may help to make clear what I have in mind. Imagine that Russ is on a roof, and one available avenue to get down from the roof is to climb down the fire escape, and the other is to take an elevator. Now, further imagine that Russ is inclined to avoid elevators for no reason, the fact *is*, that he simply dislikes them. He may reason that the elevator is indeed a possible alternative; however, he also realizes that he has the inclination to avoid elevators, and thus *reasons* that the torture he will endure from taking the elevator is more than he desires to accept. Thus, he takes the fire escape. Notice, when he finally performs the act of descending from the roof via fire escape, it is the case that his action is the result of a heterogeneous process. At the very least his action was the result of an interaction between his reason and inclination, and thus his action is best characterized as the result of a mutual construction. There was no primary determinant. Now, one might think that his inclination to avoid elevators was the primary determining factor in him taking the fire escape, but notice that he did not simply avoid the elevator due to his inclination, he still used reason to deduce the idea that he did not desire to go through the torture that taking the elevator would produce. His action ultimately is the result of multiple interactions between reason and inclination. Neither one of them

motivated the action in isolation. His action was dictated by what best satisfied all these motivating factors.

Now, this is not to say that there is no difference between reason, and these other factors, but it is to say, that these differences do not merit drawing the metaphysical distinction between them that Wolf and others do. In other words, if it is the case that all these factors are informed by each other, then it makes little sense to claim that one has a privileged position as the primary determinant of an action while the others simply operate as background interference.

In short, if there are actually available paths present, then I agree with Wolf that the capacity to act in accordance with, or in opposition to reason is sufficient for autonomy, but in contrast to Wolf, I do not see it as necessary. I argue that if there are actually available paths present, then the capacity to act in opposition to, or in accordance with any faculty, such as inclination or instinct, is sufficient for autonomy as well. Now, as argued previously, whether available paths are actually present is contingent on the system as a whole. So, for Wolf, to have autonomy just means one acts in accordance with reason even though one is able to act against reason.[195] In contrast, I do not think that acting on reason even when one has the capacity to abandon reason is enough to establish autonomy. If there are no alternative paths available, then it matters very little if one has the capacity to act in accordance with, or in opposition to, reason. Further, sense NADST sees all contributing factors as informing each other, it denies any justification for isolating these factors. Thus, to be autonomous for NADST is simply to have available alternative paths, and the capacity to actually take one of these alternative paths, regardless of the faculty being used to motivate the taking of one of these paths. It is here

[195] Ibid., p.62

that I abandon the use of Waller's terminology—autonomy-as-alternatives—and introduce the term—autonomy-as-*available*-alternatives—as it is expresses more accurately what I mean by autonomy.

3.2.2 NADST Promotes a Non-Essentialist Normativity

Wolf sees reason as explicitly and essentially a normative term that refers to the highest faculty there is.[196] To act in opposition to reason, then is to act in opposition to the "highest" faculty available to any organism that possesses reason as a possible faculty. Thus, if an organism possesses reason, then she sees reason as the faculty that ought be used to motivate action in all cases. To do otherwise, is to deny the normative character of reason. Viewing reason in this manner seems to promote an essentialist account of normativity. Wolf attaches a value to the way that reason motivates action that she does not attach to other faculties, and to deviate from this is to ignore the essentially normative character of reason. In this sense, she sees reason as the essential reference point from which all action ought be motivated.

In contrast, NADST promotes a non-essentialist normativity—one that sees it as intelligible to act in defiance to reason in some cases. Thus, there is not a set list of attributes that comprise the normative. The normative is comprised of heterogeneous elements that change in relation to the particular dynamic in play at the time. Thus, the faculty or faculties that are promoted to the role of dictator at any given moment will depend on the status of the local system at that time. In short, there are no essential attributes that comprise the normative.

[196] Ibid., p.56

In addition, Wolf argues that if one thinks that it is intelligible to act in opposition to reason, then this commits one to a radical skepticism, or nihilism, about the objectivity of values.[197] She writes:

> Keeping in mind the essentially normative character of "Reason," the claim that one might intelligibly want to act in defiance of it must be understood as a way of denying that there really is such a thing as Reason in that sense at all. It is a way of expressing a position of radical skepticism, or nihilism, about the objectivity of values. [198]

I think Wolf is mistaken to see radical skepticism, or nihilism, about the objectivity of values, as the only viable alternatives available for one who thinks it is intelligible to act in defiance of reason. If as Waller argues, it is beneficial *ceteris paribus* to explore alternatives paths even in the face of what reason recommends, then it is reasonable to think that there is value in this endeavor—the objective value being the increasing possibility of discovering resources that would be left undiscovered if reason was strictly followed in all cases. So, even if as Wolf claims, the use of reason will most likely lead to true beliefs and good values, it is not the case that it will always lead to the best action. So, there is an objective value to be found in acting in defiance of reason in some cases. Thus, I think that Waller offers a viable reason to think that acting in defiance to reason does not necessarily commit one to a radical skepticism or nihilism in regards to the objectivity of values. It commits one to skepticism about the value of seeing reason as an overriding normative dictator, but this does not warrant the stronger claim that Wolf maintains.

Now, I want to make clear that NADST does not discount the value of reason, it only discounts the use of it as the primary determinant of autonomous actions. In other words, there is still room in NADST to recognize the benefits of following reason.

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[197] Ibid., p.56
[198] Ibid., p.56

However, it also leaves room for recognizing the benefits of not following reason exclusively. In fact, since NADST sees reason as the product of development, and development as the process of mutual interaction, it sees reason as being built out of these interactions. Assuming the organism in question is capable of possessing an inclination or instinct, then there is no time when an organism is absent the influence of inclinations, instincts, or environment. So, in-practice, there is no way for any organism to act on reason alone. Thus, when following reason, one is following a reason that is informed by other factors, and included in these other factors are the currently available paths, and faculties.

3.2.3 Responsibility Within NADST

It is often said that the capacity to have done otherwise is needed in order to hold someone responsible for their actions. If one could not have done otherwise, then one cannot be held responsible. NADST claims that any organism that has possible alternatives, or in other words, the capacity to do more than one thing, is autonomous. Defining autonomy in this manner is one way of saying that one could have done otherwise. However, I do not believe this to be enough to establish responsibility. As I argued before, I see autonomy as something that admits to degrees. Thus, some organisms can be more or less autonomous than other organisms. It is in this difference that I believe room for responsibility can be made; however, in order to explain exactly how responsibility is attached within NADST, I need to first explain in more detail the various ways that organisms can differ in the degree of autonomy they possess.

To begin, I need to clarify what I mean by possible alternatives. Possible alternatives result from the relationship between what I call available paths and available faculties. In other words, an organism's possible alternatives are the result of an organism's available paths and available faculties being situated in a manner that allows access to available alternatives. The more available alternative paths and available alternative faculties an organism possesses, the more possible alternatives an organism has present; however, in order for these possible alternatives to become available, the organism's faculties must be in the right kind of relationship with the paths. I now turn to the task of explaining exactly what I mean by available alternative paths and available alternative faculties. I will take each in turn.

By available paths, I am here talking about what I call environmentally available paths. To clarify, if for example an organism is locked in a cage, then its environment is such that it has no available alternative paths. It has only one path, and that is to stay in the cage. If on the other hand, the organism is in a room that has a door, then it now has what I call available alternative paths. It could stay in the room, or go out the door. As mentioned previously, the more available paths present to an organism, the more possible alternative actions exist for the organism. So, if an organism is in a room with three doors, then it now has four possible options, stay put or take one of the three doors. So, by available alternative paths, I am talking about available external alternatives. That is, alternatives that are the result of the organism's local environment. Now, as I formerly stated, these available alternative paths are just one part of what I call possible alternatives. The other part is what I call available alternative faculties.

By faculties, I am talking about the following types of things: sense of smell, eyesight, the capacity to walk, reflex, instinct, inclination, and reason.[199] All these faculties have the capacity to motivate particular behaviors, the capacity to open the eyes of an organism to possible paths and actions that would not be noticed otherwise, and the capacity to actually allow for the action to be performed. In short, faculties (if appropriately related to a path) allow an organism to access a path. In other words, there may be a path present, but it may not be noticed if the organism is lacking the needed faculty to recognize it or act on it. For example, imagine Honeycutt is trapped in a well, and there are a bunch of boxes at the bottom of the well. If Honeycutt has all possible faculties as available options, then he has a greater chance of recognizing that stacking these boxes up can provide him with just what he needs to escape the well. Further, he has a greater chance of possessing whatever faculty is needed to actually ascend the boxes. In contrast, if Honeycutt has only one available faculty, then his chance of recognizing and actually accessing this path is reduced. In this sense, there is a path; however, it is one that may not be recognized or able to be accessed without the proper faculty in play. By having more faculties available to him, he has a higher likelihood of seeing and accessing the available path. So, the having of alternative available faculties means that an organism has the capacity to be informed and motivated by more than one faculty, and this opens up the possibility for the organism to perform actions that it would or could not perform otherwise. So, if an organism possesses the capacity to be motivated by instinct and inclination, then when acting it has two alternative faculties that can be used to motivate and inform action. For example, if an organism is in a room with one door, and the only faculties it possesses are instinct and inclination, then its possible

[199] There are for sure many more faculties than just these, but hopefully this gets the idea across.

alternative paths are to either stay in the room or go out the door, and its possible informing motivators are instinct and inclination. If this organism possesses the capacity for reason, instinct, and inclination, then it has one more available informing motivation for action. Namely, reason. The more available alternative faculties present to an organism, the more informing motivations for action exist for the organism. So, having more available alternative paths increase the amount of possible actions, and having more available alternative faculties increase the amount of possible informing motivators for taking action, and thus, increases the amount of actions recognized as possibilities, as well as increasing the amount of actions the organism can actually perform. Having clarified what I mean by available paths and faculties, we are now prepared to examine in detail what it means to be more or less autonomous.

Let me begin by stating that there must be at least one available faculty and one available alternative path present for an organism to be considered autonomous. Further, the path and faculty must be situated in a manner that allows for the faculty to access the path. In other words, the minimum requirement to claim autonomy under NADST is the existence of at least one available alternative path, the possession of at least one faculty, and a relationship between the faculty and path that allows for the faculty to access the path. So, an organism that is in a room with one door, and has no faculties, does not possess autonomy. In this scenario, it is the case that the organism has an available path to take; however, it lacks the faculty it needs in order to recognize the path, access the path, and be motivated to take the path. In other words, the organism is really no more than an inanimate object. We might think of how a brain dead human acts if placed inside a room with a million doors. Although there are millions of available paths, the brain

dead human has no motivating faculty to prompt the taking of one of these paths, nor the capacity to recognize that there is a path, and thus lacks autonomy. Notice, that if autonomy was attributable in cases where there was an available path, but no available faculty present, then it would be possible to attribute autonomy to anything that has an available path. The inclusion of at least one faculty as a requirement appears to rule out the possibility for attributing autonomy to inanimate objects, but we might wonder where this leaves things like trees and plants. I want to consider the possibility that trees and plants do possess a certain amount of autonomy.

To begin, lets make a further distinction between plants and inanimate objects. It is possible for a tree to take a path if one is present. If we place a tree inside a cage, then the tree has no available paths, and thus cannot do anything but stay inside the cage; however, if we cut a hole in the top of the cage, thus providing an available alternative path, then it is entirely possible that the tree grows out of this hole. In other words, it is possible to claim that the tree has taken a path, and that the tree might have done otherwise. In contrast, if we place a stone inside the cage, even if we cut a hole in the cage, it does not ever leave the cage. It lacks the capacity to do otherwise. In this sense, we might think that the tree and rock differ in their capacities to possess autonomy-as-available-alternatives; however, one might argue that the rock too can access the hole in the cage if it is acted upon by an external influence such as the wind. After all, the tree will only grow out of the hole if there are external influences such as sunlight and water. Thus, there seems little difference between the tree growing out the hole, and the rock being blown out the hole—neither tree nor rock *decides* on any action, or could do

otherwise than what is given by the external causal influences—hole/no hole; light and water; wind blowing.[200]

The short response is that unlike the tree, the rock lacks a faculty, and thus fails to meet the minimum requirement for autonomy-as-available-alternatives. In offering a more detailed response, I rely on a distinction that Richard Campbell draws between different types of cohesive systems.[201] To begin, we need to get clear on just what Campbell means by cohesive system. He states:

> A cohesive system is one in which its various internal processes work together to ensure that one of the forms of stability which it manifests is spatio-temporal integrity. […] What makes component processes into a strongly cohesive system—into an identifiable entity—are the internal bonds which constrain the behaviour of its constituent sub-processes in such a way that the totality behaves dynamically as an integral whole. […] For example, the molecular bonds in the crystal lattice of a rock cause the rock as a whole to behave as a unified system under a large range of interactions; if it is kicked with moderate force, it moves relative to the ground.[202]

A cohesive system, then, has the effect of at least observably individuating the system from its environment. The internal bonds of the rock effectively cohere in a manner that allows for the rock to behave as an integral whole. Contrast this with gas—if gas is not contained, then it will disperse.[203] So, although the rock is a composite of sub-processes, these processes integrate into a whole. Campbell then draws a distinction between two fundamentally different types of persistent cohesive systems. He claims there are "persistent and cohesive systems that are energy wells, and those that are far-from equilibrium."[204] In addition, he adds that "these two types of entity manifest ontologically different forms of stability."[205] He maintains that

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[200] I owe this objection to Dr. Brook Sadler
[201] Campbell, Richard (2009). "A Process-Based Model For An Interactive Ontology." Synthese, Vol.166, No.3. (1 February), pp.453-477
[202] Ibid., p.459
[203] Ibid., p.459
[204] Ibid., p.453
[205] Ibid., p.461

> 'Energy wells' are cohesive process systems which persist at or near thermodynamic equilibrium, and whose organization can be disrupted only by an input, from external sources, of a critical level of energy. Typically, such a disruption of their organizational structure can only be brought about by a higher level of energy than they typically encounter in their ambient environment.[206]

For example, if you smash a rock with a hammer, then it its organizational structure may disrupt. The key point here is that the organization of this type of cohesive system can only be disrupted by an external source. In contrast, far-from equilibrium systems have intrinsic processes that interact with its ambient environment. He offers the planet earth as an example. He claims, "[S]ince far-from equilibrium stability manifestly exists, its maintenance has to be a function of its being located within an interactive system of some sort. In the case of the earth, this is primarily a matter of energy flow from the sun to the earth and heat radiated from the earth into space."[207] The persistence of a far-from equilibrium system is dependent on external resources, but the interaction between the intrinsic processes in the system and these external resources are what enable the system to maintain.

Campbell then introduces a further distinction. He claims that there are far-from equilibrium systems that are self-maintenant, and those that are not. A self-maintenant system is one that contributes to the persistence of the conditions upon which it depends.[208] Campbell offers the example of a candle flame to make things clear,

> a candle flame is a complex of processes that make several active contributions to its own persistence, including its maintaining a spatio-temporal integrity. Most importantly, a candle flame maintains its temperature above the combustion threshold; it vaporizes wax into a continuing supply of fuel; and in usual atmospheric conditions, it induces convection currents, thus pulling in the oxygen it needs and removing the carbon dioxide produced by its own combustion.[209]

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[206] Ibid., p.461
[207] Ibid., p.462
[208] Ibid., p.462
[209] Ibid., p.462

The point is that the candle flame is involved in maintaining itself. It is true that if it runs out the necessary external resources, i.e., oxygen or wax, it will no longer persist, but as long as these external resources are available, then it will continue to play a role in maintaining itself.[210] In this sense, we can say that it is a far-from equilibrium system that is self-maintenant. In addition, there are far-from equilibrium systems that are recursively self-maintenant. In contrast to a self-maintenant system, a recursively self-maintenant system can not only maintain stability within a certain range of conditions, but can also maintain stability within certain ranges of changes of conditions.[211] As Campbell states, "they can switch to deploying *different* processes depending on conditions they detect in the environment."[212] The point of the discussion is this: Rocks are a type of cohesive system, but they are energy-wells they are not far-from equilibrium systems. In contrast, trees are not only far-from equilibrium systems, but are a far-from equilibrium systems that are recursively self-maintenant. The complexity that allows for the tree to be self-maintenant, is not found in the rock. It is true that both the tree and the rock need external influences in order to go through the hole in the cage, but the tree being a far-from equilibrium system that is recursively self-maintenant, has the capacity (faculty) to deploy different processes depending on the conditions of the environment. In short, the tree interacts with the environment, the rock does not. The rock lacks any intrinsic processes that interact with its ambient environment. In other words, the rock lacks the faculty needed to interact with its environment. In this sense, it seems fair to claim that the rock lacks the needed faculty to actually access a path. It may be pushed out of the hole, but it is not due to any intrinsic process of its own—it is only due to an external

[210] Ibid., p.462
[211] Ibid., p.463
[212] Ibid., p.463

cause. In contrast, the tree does have intrinsic processes that interact with the environment, and these intrinsic processes have something to do with the capacity for the tree to grow out the hole in the cage. Thus, it is not the case that the tree growing out the hole is solely an effect of external causes.

So, there is clearly a further distinction to be made between plants and inanimate objects in regards to autonomy. But, one might wonder if there is much of a difference between the tree taking an available path, and an organism that possesses only the faculty of instinct taking an available path. In both cases the action is the result of something that is not in the control of the life form in question. Both the tree and the organism in this case are in a passive relationship with the motivating faculty; however, there is a motivating faculty present, and an available path. So, if the minimum requirement to claim autonomy under NADST is the existence of at least one available alternative path, and possession of at least one faculty, and the faculty and path are situated in a manner that allows for the faculty to access the path, then it seems that both the tree and the organism in this case have met the criteria. In this case, what is being displayed by the tree is the least amount of autonomy possible. Now, if a life form, in addition to the minimum requirement for autonomy, has more than one alternative path, or more than one available faculty, then that organism has more possible options available, and thus has the capacity to be more autonomous than one that has only the minimum requirement. However, more needs to be said about how the role of faculties and paths operate.

Unlike available paths, which simply add the possibility for one more available option for each available path, available faculties have the capacity to expand an

organism's available options exponentially. To clarify, think about Honeycutt stuck in the well again. If Honeycutt has available to him the faculty of reason, then he has available to him all the different options and paths that reason helps him recognize. If there are three possible available paths, and Honeycutt lacks the faculty needed to recognize and access these paths, then these paths cease to be available. Think of an infant that is stuck in the same well as Honeycutt, the infant lacks the faculty needed to recognize that stacking up boxes will allow for escape. Further, even if the infant had the faculty of reason, and was able to recognize that stacking the boxes will allow for escape, the infant may still lack the faculty to climb, and thus the path is still unavailable. So, the environmentally available path is the stacked boxes, but since the infant lacks the faculty to recognize this path, and access this path, then this paths ceases to be available to the infant. So, no matter how many possible available paths are present, it is only through the use of available faculties that these paths are recognized and accessible, and thus become actually available for use. Thus, although the possibility for available paths is essential to autonomy, without the proper faculty present, and without the proper relationship between the faculty and path, then it is possible that these paths are never recognized or accessible, and hence never seen as available. So, the organism with the greatest number of faculties present, has the greatest opportunity to make use of available alternative paths, if the faculties are situated in a manner that allows for access to these paths. However, this is not the whole story. The quality of these faculties matters as well. There is a difference between the amount of available options that can result from the use of different faculties. It seems likely that some faculties have the capacity to increase available options in greater number than others. In addition, although some organisms

might share the same faculty, one organism might possess a superior form of this particular faculty, and thus might have more available options as a result. I will examine each of these in order.

First, I maintain that some faculties have the capacity to increase available alternatives in greater number than others. For example, it seems uncontroversial to claim that reflex is much more limited than say inclination. There are few if any real alternative actions that arise from the motive of reflex. If the doctor hammers your knee, your leg moves. This is the action that the reflex motivates; however, if the doctor hammers your knee, and inclination is the motivating factor, then you may be motivated to perform numerous actions. You may be inclined to hit back, sit there and take it, or run out of the office. So, in this case it seems clear that inclination offers more possible alternatives than reflex. However, if both reflex and inclination are in play, then the capacity for even more available alternatives is present—in addition to all the alternatives that inclination provides, reflex provides the alternative of your leg necessarily moving when the doctor hammers your knee. If the organism in question only had available the faculty of inclination, then this alternative would not be available. In other words, if you lacked reflex, then you would lack the alternative of your leg necessarily moving when the doctor hammers your knee. So, although reflex is severely limited in the number of alternatives it provides, it nonetheless does provide an alternative. In other words, an organism that possesses both reflex and inclination has the capacity for more available alternatives than one that has only one or the other, but if an organism does only possess one or the other, than inclination is the one that offers more available alternatives. I think this is certainly the case for reason, and I see at least two explanations for this.

First, I take it to be an uncontroversial claim that any organism that has reason as a faculty also has instincts and inclinations. There is no empirical evidence to suggest that there exists any organism on this planet that possesses reason alone, and no other faculties. In contrast, there certainly does seem to be empirical evidence of organisms on this planet that possess instinct, but do not possess reason, or that possess a variety of faculties, but do not possess reason. So, it follows that any organism that possesses reason will also possess many other faculties. As stated previously, the organism with the greatest amount of faculties present, has the greatest opportunity to make use of available alternative paths. I argue that empirical evidence suggests that organisms with reason also possess many other faculties, and thus have the capacity to make use of more available alternative paths than those that don't.

Second, reason seems to have the capacity to open up more doors than other faculties. Reason gives organisms the capacity to break down a situation and analyze the different possible routes. It has the capacity to exponentially increase the number of possible options. To clarify, think about Honeycutt in the well again. Not only does reason help him identify the available path, and thus allow him to escape, but it also has the capacity to offer him numerous ways in which to accomplish this action. He could stack the boxes long ways, or short ways, or anyway that will do the job. In short, his options increase significantly. It is not simply the case that he sees an available path, and that's it, but he sees multiple ways in which to access this available path, assuming there are multiple ways. However, if there are not multiple ways, then reason allows him to see this as well. Reason offers the opportunity to analyze the consequences of performing an action in a different manner than other faculties. So, much like inclination motivates and

recognizes more possible alternative actions than reflex, reason motivates and recognizes more possible alternative actions than all other faculties. But, this does not mean that if an organism only possesses reason that it recognizes all possible alternative actions, or even the most alternative actions. Just like the example of reflex and inclination, the organism that possesses reason and these other faculties will have a greater amount of available options, than the organism that only possesses reason. Thus, the greatest amount of autonomy possible is only available to those organisms which possess reason, but reason is not sufficient, it is only necessary. Consequently, I maintain that those organisms with the greatest amount of autonomy have the faculty of reason as an available option. It is not the sole criteria or primary determinant for autonomy, but it is requisite for the highest degree of autonomy. In short, the more available paths and the more available faculties present to an organism, the more autonomous that organism can be, but in order to reach the highest level of autonomy, all possible faculties must be in play, and this includes reason. This is probably in-practice impossible, as it seems highly unlikely that any organism will actually possess all possible faculties. The best we can hope for is a close approximation to this ideal.

Now, to the claim that some organisms might share the same faculty, but due to the fact that one organism possesses a superior form of this particular faculty, they have more available options as a result. Take for example the eagle. It is possible that the eagle has the faculty of tremendous eyesight, and although most humans also possess eyesight, our eyesight is not as keen as that of the eagle, and thus the eagle will recognize available paths that humans do not recognize. So, imagine a case where the only faculty possessed by the human and the eagle, is eye sight. In this case, although both the eagle and the

human share this faculty, the fact that the eagle's faculty is superior allows for it to recognize more available paths, and thus it has more available options. In this case, the eagle is more autonomous. However, although this faculty presumably allows the eagle to recognize numerous paths that would go unrecognized by an organism without the same degree of this faculty, it still only allows for the recognition of a few environmentally available paths, it does not allow, in the way that reason does, for the eagle to see nearly as many different paths. Yes, it is true that the eagle may recognize that it can access the path from the east or the west, but this is not what I am talking about. If we put the eagle in the well with Honeycutt, it may be the case that the eagle sees boxes that Honeycutt does not see, but through the faculty of eyesight alone it is unable to see that stacking the boxes is the only way to escape. So, although there is an available path out of the well, it is not available to the eagle, because it lacks the faculty to recognize that path. The same can be said for Honeycutt. If the boxes he cannot see are required to access the path out of the well, then the path is not available to him. So what is the difference here? The difference is that keen eyesight does not allow the eagle to analyze if it *should* take the path from the east or the west. For this to happen, the eagle needs more than just the faculty of keen eyesight, it needs the faculty of reason. Reason would allow the eagle to determine which path it ought take to best satisfy the goal. Reason brings into the equation the capacity to determine what the best mode of action is in the given situation.

In addition, it should be noted that the eagle example exposes the idea that organisms that possess reason, can also be subject to this kind of distinction. If Sara's capacity to use reason is superior to Jesse's capacity to use reason, then it seems reasonable to think that Sara has the capacity for more available options, and thus the

capacity to reach a greater level of autonomy. So, even at the highest levels of autonomy, it still admits to degrees of difference. Consequently, the level of autonomy of any organism can only be assessed on an individual basis. It might be the case that all organisms that possess reason are more autonomous than those that do not possess reason, but it is also the case that within the organisms that possess reason there are degrees of difference in the amount of autonomy each possesses due to the fact that some possess a superior form of this particular faculty.

There still may be a question about whether or not an organism with all possible faculties and an infinite amount of paths will actually act at all. It is possible that organism X with only the minimum requirement for autonomy does not stay put, while organism Z with more available options just sits around doing nothing. But, this does not show that X is more autonomous than Z, it just shows that X's action was to leave, and Z's action was to stay put. In contrast, if it is the case that Z is paralyzed by the having of too many options, or simply cannot seem to act no matter what options are presented, then we might think that X is more autonomous than Z. But notice here, that if Z is paralyzed, or simply unable to act no matter what options appear to be available, then Z actually has no *available* options. The availability of options requires that the organism in question actually has the capacity to act on these actions. These options have lost their availability for Z. So, we might think in this case that Z actually lacks the needed faculties to motivate or recognize the available paths, that Z's faculties are in some manner defective, or that there really are no *available* paths present for Z. Now, if Z recognizes that there are available paths present, but still cannot act on them, then we might question whether or not Z *actually* sees these paths as *available*. If Z does actually

see these paths as available, and yet still cannot come to act, then I think it right to claim that Z's action consists of staying put. After all, one of the available paths in any situation that meets the minimum requirement for autonomy is to stay put. So, if Z stays put, even when there are numerous available paths, then staying put just counts as Z's action. In short, to be more autonomous for NADST is simply to have more possible options available, and to have the capacity to act on them, whether or not one actually acts upon them or not is a separate issue. We are now ready to cash out how it is that moral responsibility works for NADST.

I begin by stating that moral responsibility can only be attached to those organisms that have developed reason as an alternative faculty. I am not making the stronger claim that reason must be the faculty used in the performance of an action to hold one responsible, but simply that the having of reason as an alternative allows for the attachment of responsibility. As I argued previously, there are times when it is beneficial to act on the motivation of some other faculty besides reason; however, this does not mean that the action escapes moral accountability. If the organism in question has as an option the use of reason, then it can and should be held responsible for the action, assuming that it could have done otherwise.[213] So, if there are available paths presents, and the organism in question has reason as an available faculty, and this faculty is situated in a manner that allows for it to access a path, then that organism is responsible for the actions it performs. In short, only those organisms that have the capacity to

[213] This is an important requirement. If the organism in question cannot do otherwise, then even if reason is an available faculty, the organism escapes responsibility for the action performed. Thus, we might think that reflex is a special case. Even if one has reason as an available faculty, if the doctor hammers on your knee, your leg moves, and reason can do nothing to prevent this from happening. So, in this sense, reason cannot trump reflex. Thus, in the case of reflex, it may not be possible to have done otherwise, and thus responsibility should not be attached.

possess nearly the highest degree of autonomy are to be held morally responsible for their actions, and I maintain that those organisms are the ones that possess reason as a faculty. As noted earlier, reason is the only faculty that allows for an organism to determine what action it *should* perform in a given situation, it is also the only faculty that permits what Richard Campbell calls flexible learning—which allows for an organism to adjust its behavior through anticipating the likely outcomes of its action.[214] Thus, it is also the only faculty that allows for an organism to determine what action it *should not* perform. It is this capacity that allows for the attachment of responsibility. If an organism lacks the capacity to determine what should or should not be done, and adjust its behavior in anticipation of the likely outcomes of an action, then it follows that this organism cannot be held responsible for doing what it should or should not do. There is no right or wrong action in the moral sense for this organism.

[214] See Campbell (2009) p.469 where he offers an account of flexible learners for a more detailed account of this claim.

4

The Source of Inclination

In the previous chapter I offer a naturalized account of autonomy that gives reason to think that actions can be the product of something besides *reason*. Following this, I see it necessary to examine one of these other sources in more detail, namely inclination. In this chapter I examine three views on the source of inclination, and investigate the capacity for these accounts to work within the naturalistic framework I endorse in previous chapters.

4.1 Introducing the Three Views of Inclination

Typically Kantian ethics is portrayed as antithetical to naturalism; however, the position that Tamar Schapiro offers in her article "The Nature of Inclination" seems to offer reason to rethink the notion that the Kantian concept of inclination is incompatible with a naturalistic framework. Thus, I begin my investigation with a treatment of her piece.

In her article, Schapiro discusses three views of inclination. In setting the framework for her position she identifies two extreme positions. She argues that "a theory of inclination has to navigate between two extremes, one of which assimilates inclination

to an external happening and the other of which assimilates it to an exercise of will."[215] The first she calls the extreme anti-rationalist view of inclination, and the second she calls the extreme rationalist view of inclination. She then offers and defends what she calls a "middle way." She argues that inclination "[…] is the exercise of a subpersonal capacity that is both agential and nonrational."[216] I now discuss the three positions as she sees them, offer criticism of the extreme rationalist (hereafter ER), and extreme anti-rationalist (hereafter EAR), positions, then I show how Schapiro's account lends itself to the naturalistic framework I endorse. In doing this, I show why the ER and EAR accounts fail to work for the naturalized framework that is informed by DST. Further, I examine the notion of instinct, and examine the possibility that Schapiro's account of inclination supports a notion of inclination that sees it and instinct as different in degree rather than different in kind. Consequently, Schapiro's account of inclination is a better fit for the naturalistic account I offer.

4.2 The Extreme Anti-Rationalist View

Schapiro claims that the extreme anti-rationalist view supports the idea that inclinations arise from "a source external to reason or will."[217] Further she maintains that such a view places the motivational source of inclinations outside of our agential capacities.

> Extreme anti-rationalism locates the motivational source of inclination in something wholly distinct from our agential capacities. […] The claim is that our inclinations are causally

[215] Schapiro, Tamar (2009) p.232
[216] Ibid., p.232
[217] Ibid., p.233

> determined, whereas we freely author our actions; inclination is the product of natural necessity, whereas actions are products of reason.[218]

So, the idea is that our inclinations are products or effects of a causal process, and thus can arise in us independently of our volition.[219] In this sense, our inclinations come to us, we do not go get them. So, we are passive in relation to the motivational source of our inclinations. According to Schapiro's explanation of the EAR position, the primary distinguishing characteristic between inclinations and actions is that actions are products of reason, whereas inclinations are the product of what she calls natural necessity. I see at least three items that need to be addressed within her explanation of the extreme anti-rationalist position. First, I question the use of the phrase *product of* in her explanation of the difference between inclinations and actions. Second, I investigate the use of the term natural necessity in establishing inclinations. Finally, I explore the notion that actions are solely the product of reason.

Schapiro maintains that the extreme anti-rationalist position asserts that behaviors that are motivated by inclination are causally determined, whereas actions are something we can freely author. Thus, there is a distinction drawn between causally determined behavior, and freely authored behavior. *Prima facie* this claim seems straightforward, and unproblematic. However, she then claims that the EAR asserts actions as products of reason. The use of the phrase *product of* here appears problematic. The phrase *product of* seems to imply some sort of causal relationship between the item that precedes the phrase, and the item that follows the phrase. If this is not the case, then it seems

[218] Ibid., p.233
[219] Schapiro, is quick to note that it is important "not to confuse extreme anti-rationalism with […] Humeanism according to which desire and practical reason do not differ deeply in kind" She claims that her use of the term "[…] refers to a dualist view, not the Humean view." p.233

reasonable to wonder if the *product of* relationship between reason and action is a matter of logical necessity. I address the former concern first.

If I say that all "X's" are the product of "Y," then I am saying that "X" is the result of "Y," that if I have an "X," then I must have a "Y." Without getting into all the problems associated with the notions of causality, it still seems quite fair to interpret the saying *product of* as implying a causal relationship. Thus, if the extreme anti-rationalist wishes to draw a distinction between inclinations and actions based on the claim that inclinations are causally determined, but actions are not, then they may need to abandon the notion that actions are the *product of* reason. Schapiro does not address this problem in her essay, but it seems that the EAR must ascribe to the claim that reason itself is not causally determined, and thus actions although the product of reason escape the charge of being causally determined. However, this ascription does not avoid the charge that actions, if the product of reason, are themselves causally determined; even if reason itself is not causally determined. Although, such an assumption is not a given, for the time being, I will assume that reason is not causally determined, and levy my criticisms under this assumption. The argument goes as follows.

1. Reason itself is not causally determined.
2. Actions are the product of reason.
3. The phrase *product of* implies that some thing, is the producer of something else.
4. Thus, reason is the producer of actions.
5. A causally determined thing is a thing determined by its cause, call this an effect.
6. By definition, causes produce effects.
7. Thus, all an effect is, is the product of a cause.
8. How a cause comes to be, is not necessarily identical with how the effect of this very cause comes to be.
10. Thus, it is not necessarily the case that if "X" produces "Y," that how "Y" came to be is identical with how "X" came to be.
11. Therefore, if actions are the *product of* reason, and reason is not causally determined, it does not follow that actions are not causally determined.
12. If actions are the *product of* reason, and all an effect is, is the product of a cause, then it follows that actions are the effect produced by reason.
13. Thus, although reason is not causally determined itself, reason does causally determine action.

Now of course if reason is posited as causally determined, then premise one can be dropped from this argument without producing any real problems.

I now turn to the question of whether the *product of* relationship between reason and action is a matter of *logical* necessity rather than *causal* necessity. Perhaps the use of the phrase *product of* is meant to assume that the relationship between reason and action is a matter of logical necessity. If this is the case, then there is now a stronger, and I argue more determined relationship between the items at issue, than a causal relationship. If it is the case that I must have a "Y" in order to have an "X," then "Y" is a necessity for "X." Now, if the use of the phrase *product of,* implies such a relationship, then the statement that "[…] actions are products of reason," seems to place reason and action into a necessary relationship. So, it appears that the EAR must accept that the relationship between reason and action is either one of logical necessity or causal determinacy. Positing a logical necessity to empirical items such as actions and reason appears unjustifiable, and if not, then it is at least problematic. Either way, to accept either of these conclusions is unacceptable for the EAR. Thus, I maintain that the description of actions as the *product of* reason is a misnomer at bare minimum.

In addition to the troubles discussed with the use of the phrase *product of,* the use of the term natural necessity is also problematic. In contrast to actions, Schapiro maintains that the EAR asserts inclinations as the result of natural necessity. The meaning of the term natural necessity is unclear. Presumably claiming that inclinations are the product of natural necessity means either that there is something about the "nature" of human beings or perhaps the nature of organisms in general, that necessitates the possession of inclinations, or the more general claim that there are things that exist out in

the world called inclinations, and that they are the necessary product of some thing or things in the past, present, and perhaps future universe.

If we take the first part of the former understanding of what it means for inclinations to be the result of natural necessity, then inclinations are a necessary part of *being* a human being. This points to the idea that there is some sort of "nature" that can be ascribed to human beings; call it human nature. Such a claim has several difficulties. Since I maintain a naturalistic framework, I will examine one difficulty that arises for this claim with the acceptance of evolutionary theory, and one that arises, if in addition to this acceptance, it is approached from the stance of DST.

In an article titled "On Human Nature," David Hull discusses the problem with accounts of human nature under the condition that evolutionary theory is accepted. Hull argues that "[…] it is simply not true that all organisms that belong to *Homo sapiens* as a biological species are essentially the same."[220] Furthermore, he claims that even if there were characteristics that were limited to one species and universally shared within that species, it would be temporary at best and extremely rare.

> In most cases, any character universally distributed among the organisms belonging to a particular species is also possessed by organisms belonging to other species, and conversely any character that happens to be limited to the organisms belonging to a particular species is unlikely possessed by all of them. […] A character state (or allele) which is rare may become common, and one that is nearly universal may become entirely eliminated. In short, species evolve, and to the extent that they evolve through natural selection, both genetic and phenotypic variation are essential.[221]

Hull's account exposes a difficulty that evolutionary theory produces in defining an account of an organism's nature. Evolution by natural selection is the primary process by which organisms change. Thus, what might be seen as human nature in the present, may not have been part of the species in the past, and might not be a part of the species in the

[220] Hull, David, (1987) "On Human Nature," Philosophy of Science Association, vol.2. p.11
[221] Ibid., p.11

future. So, even if we did identify some particular characteristic that we called human nature it would only be of temporary use to any form of naturalism that assumes evolutionary theory. If Hull is correct, then one must eliminate the use of an essentialist definition of an organism's nature. If by claiming that inclinations are a natural necessity one means that there is something about the "nature" of human beings or perhaps the nature of organisms in general that necessitates the possession of inclinations, then the elimination of an essentialist definition of human or any organism's nature proves damaging. Without an essentialist definition of an organism's nature this claim is not warranted.

Further, If we analyze the concept of natural necessity under the DST perspective, then we might find further reason to deny it. In order to expose the problems that DST produces for accounts that treat the development of an organisms inclinations as the result of natural necessity, it will help to return to DST's reconceptualization of the nature/nurture debate.

The argument over the primary cause of an organism's development is often articulated in terms that promote a divide between nature and nurture. This type of approach places particular importance on how much the development of an organism is the result of genes, and how much is the result of that organism's particular environment. Now, in order to examine the development of an organism in this manner it is necessary to see environment and organism as separate. In contrast, DST wants to draw focus on how organism and environment mutually construct each other. As discussed in Chapter Two, Oyama reconceptualizes the notions of nature and nurture in a manner that allows genes and environments to be seen as "parts of a developmental system that produces

phenotypic natures."[222] Now, if natures are viewed as phenotypic, then it follows that natures cannot be fixed and unchanging, but instead, as Oyama notes, "[…] natures are multiple and changing over the life span. […] nature is simply a phenotype—an organism-in-transition through a life cycle […]."[223] So, an organism's nature simply amounts to whatever attributes identify an organism at a particular time, and these attributes are the result of developmental processes. Thus, the nature of any organism is contingent on the various statuses of the resources and interactants involved in its development. In addition, as Oyama notes, according to DST, traits must be constructed in ontogeny,[224] and thus, the reliability of any trait is contingent on the stability of the influences present during construction. To use the term *natural necessity* in regards to the possession of inclinations implies that there is something about the nature of an organism that requires as a necessity the possession of inclinations; however, if the reliability of any phenotypic attribute is contingent on the stability of the influences present during construction, then in order to maintain the claim that inclinations are the result of a natural necessity, it requires a commitment to the notion that the influences present during construction remain stable. If they do not remain stable, then the nature of an organism may very well obtain or lose certain phenotypic attributes, and it is possible that inclinations are one of the attributes effected. Since there is no reason to think it necessary that these influences remain stable, then to claim that inclinations are a natural necessity is too strong a claim to maintain under the assumption of DST.

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[222] Ibid., p.48
[223] Oyama, Susan (2006). "Speaking Nature" in *How Does Nature Speak? Dynamics of the Human Ecological Condition*. (pp. 49-65). Chuck Dyke and Yrjö Haila (Eds.), series on Ecologies for the Twenty-First Century. Durham, NC: Duke University Press. p.11
[224] Ibid., p.87

Now, if by claiming that inclinations are a natural necessity one means the more general claim that there are things that exist out in the world called inclinations, and that they are the necessary product of some thing or things in the past, present, and perhaps future universe, then it does seem necessary to posit some sort of causal relationship. If not, then either the necessity of inclinations is called into question, or one must posit some other "power" from which this necessity arises. Taking a note from Hume, it seems likely that we might just define causation as necessary connection, and thus posit a causal relationship.

Returning to the claim that actions are the product of reason, once again we see the use of reason as the primary determinant for actions. As noted in chapter three, this limits the number of possible alternative actions. If all actions are the result of reason, then no actions are the result of inclination, and thus a large array of possible actions are lost. Furthermore, if all actions are the result of reason, then the possibility that actions may arise in opposition to reason is eliminated. But, this does not match up with empirical findings. People often act in opposition to reason.

If human actions are the result of reason, then what produces actions in animals that do not possess reason? It seems that the answer must somehow involve either the notion that all animals possess reason, animals which do not possess reason act on inclination or instinct, or that animals do not *act* at all. In reference to the latter option, I maintain that on the Darwinian naturalism I endorse the difference between action and mere behavior is a matter of degree, and thus this does not alleviate the problem for the EAR. If the EAR simply rejects Darwinian naturalism, then this option does become

available; however, the point of this section is to expose the problems associated with accepting this form naturalism for the EAR position.

So, if we assume that animals that do not possess reason act on inclination or instinct, then there is nothing inherently impossible about things other than reason prompting action. Thus, the EAR must assume that there is a difference in kind between humans and other species, or attribute reason to all species. However, the latter suggestion seems unlikely in light of current evidence. Thus, it must be the case that the EAR is committed to the former belief. The naturalistic framework I endorse does not accept the claim that there is a difference in kind between the mind of what we might call the lower animals, and the human animal. Following Darwin, I maintain that it is a difference in degree.[225] Assuming that the difference between the lower animals and the human animal is one of degree, and assuming that at least some of the lower animals lack the possession of *reason*, then there is no reason to think that actions are the sole product of *reason*. Thus, the notion that actions can be prompted by inclination or instinct is not out of the question.

Now, this does not mean that inclinations are not causally determined, but it does mean that if inclinations are causally determined, then actions that are motivated by inclination are not freely chosen. So, the EAR has few options left to support the claim that our actions are freely chosen. Either, admit that there is a difference in kind between the lower animals and the human animal, admit that all animals act from reason, or admit that inclinations and instinct are not causally determined. The latter option seems out of the question for the EAR, and the second option is unlikely given current evidence. Thus, the first option seems the only viable option left for the EAR. Such a commitment makes

[225] Darwin, Charles. 1998 [1871]. *The Descent of Man*. New York, New York: Prometheus Books. p.130

the EAR's position incompatible with the naturalistic framework I endorse in earlier chapters, and thus I reject it.

4.3 The Extreme Rationalist View

In contrast to the EAR, Schapiro claims that the ER emphasizes the "similarity between the form of motivation involved in inclination and that involved in volition."[226] The ER denies "that there are distinctly passive and active motivational capacities."[227] Thus, the difference between the motivational capacities of reason and inclination appears to be one of degree rather than of kind. She claims that

> [E]xtreme rationalism starts from the main rationalist insight, namely, that inclination engages us as agents. It then takes this insight to imply that inclination engages us as full-fledged rational agents. […] extreme rationalism denies the Platonic and Aristotelian view that there are agential parts of the soul in any philosophically deep sense. It denies that there are distinctively passive and active motivational capacities, each making a different contribution to action. Instead, extreme rationalism holds that the soul is unitary, in the sense that agency involves the exercise of one's rational capacity.[228]

So for the ER there is no clearly delineated category of motivational or causal importance that separates reason from inclination. They both play a role in motivating action; however, at this point the extent of the role each plays is still unclear. In order to grasp the role that each plays Schapiro investigates an argument by Thomas Scanlon that she considers to be a version of what she calls extreme rationalism.[229]

In his book, *What We Owe to Each Other*, Scanlon argues that desire alone does not motivate action. According to Schapiro, Scanlon's view posits that "having a desire

[226] Schapiro (2009) p.239
[227] Ibid., p.241
[228] Ibid., p.241
[229] Ibid., p.241

to 'A' essentially involves taking certain considerations as reasons to 'A'."[230] Further, she notes that Scanlon intends this account to be the case for all desires. Thus, for Scanlon "the motivational force behind all action comes from the agent's taking-something-as-a-reason-to-act."[231] So, if an inclination motivates an action, then the formulation of that inclination involves some sort of reason; it involves the use of reason. Thus, Scanlon makes no distinction in kind among the possible sources of motivation for an action. After all, if Scanlon is correct, then the motivation behind every action comes from having a reason to perform that particular action. Further, Scanlon argues that there is nothing about the way desires, reason, or inclinations motivate that makes them a unique source of motivation. He writes:

> […] we should not take "desires" to be a special source of motivation, independent of our seeing things as reasons . . . when a person does have desire in the directed-attention sense and acts accordingly, what supplies the motive for this action is the agent's perception of some consideration as a reason, not some additional element of "desire."[232]

So, according to Scanlon desire does not have some additional motivating part. The motivation for acting on desire is found in the agent's perception that there exists a reason to perform some action.

At this point Schapiro questions if the ER can account for the EAR's claim that the passivity of inclination or desire, and the deliberateness of reason, expose them as distinct motivational sources. Schapiro points to the appearance of conflict between distinct motivational sources in cases of *akrasia* and irrationality. If such a conflict exists, then it presents a problem for the ER's claim that the motivational sources behind actions

[230] Ibid., p.240
[231] Scanlon, Thomas. (1998) *What we Owe to Each Other*. Cambridge, Massachusetts, and London, England: The Belknap Press of Harvard University Press., p.39
[232] Ibid., p.40

are not different in kind. If the ER is to maintain a unitary notion of the soul, then there needs to be some account of how something like irrational thoughts or *akrasia* arise.

In addition, there also seems a question about what kind of reason is in play when one is motivated to act. If when he speaks of rational he is talking about instrumental rationality, where the rationale behind an action is akin to the easiest or most effective way to satisfy a particular desire, then it seems that such actions may be seen as irrational in a non-instrumental sense. In other words, it may be instrumentally rational to kill your mistress if you wish to make sure that she does not reveal the nature of your relationship with her to others; however, the action of killing one's mistress may be seen as irrational if judged from a non-instrumental notion of rationality. In one sense there is a reason to perform this action, but in another sense there is a reason to never perform this type of action. So, it seems important to know what kind of considerations Scanlon is talking about when he claims that to act, essentially involves taking certain considerations as reasons to act. Are these considerations instrumental considerations or some other considerations? Scanlon seems to offer an answer to both of these questions when he explains that "we have one capacity that can be exercised in two distinct ways."[233] He writes:

> Being such a creature (rational that is) involves not only the capacity to make certain judgments and to be consistent about them, but also the ability to see certain considerations as reasons and to think of and see as reasons those things one has previously judged to be such. […] Even if, for example, I have convinced myself that I should not be influenced by the approval or disapproval of a certain group, I may find myself wondering anxiously what they would think of something I am considering doing. When these thoughts occur, I may dismiss them immediately. Nonetheless, insofar as they involve (perhaps only momentarily) seeing something as a reason that I judge not to be one, they are instances of irrationality.[234]

[233] Schapiro (2009) p.242
[234] Scanlon (1998) p.40

Scanlon draws a distinction between seeing something as a reason to act in a particular way, and judging that I have reason to act in a particular way. So, when one has judged that "A" is not a reason to "B," but nonetheless continues to see "A" as a reason to "B," and thus performs "B" on the basis of "A," then one is acting irrationally. However, in both cases the action is motivated by a reason. Thus, according to Scanlon, there is no grounds for positing distinctive motivational capacities in cases of akrasia or irrational action. There is not a conflict between two distinct motivational capacities, in both instances the motivation to act arises from a reason. So, the distinction is not drawn between motivational capacities, but rather, it is drawn between two ways of exercising the same motivational capacity.

The distinction Scanlon draws between judging something as a reason to act, and simply seeing something as a reason to act does seem to admit to a degree of difference in the motivational strength of the reason. Scanlon claims that to act in opposition to judgment is irrational. Now, by Scanlon's account, all actions are motivated by some reason. Thus, it seems that for Scanlon it is impossible to act in opposition to reason. However, as noted above, there must be a difference in the motivational strength of the reason used to prompt an action if in one case it is seen as rational, and the other it is seen as irrational. Presumably, irrational behavior is not as reliably advantageous as rational behavior. If "X" is more reliably advantageous than "Y," then it follows that "X" will be the preferred option of motivation. Now, this does not mean that "Y" will not sometimes win out, but it does mean that when one reflects back on the decision to follow "Y" rather than "X," assuming that advantageous behavior is seen as more desirable, then one will see the decision to act on "Y" as a mistake. So, it follows that rational behavior would be

preferred to irrational behavior. If the claim is that to act in opposition to a reason arrived through judgment, even if guided by another type of reason, is to act irrationally, then it must be the case that acting on the basis of a reason which has been determined by judgment is seen as the preferable option. Presumably, if reason "X" is preferred to reason "Y," then the motivational strength of "X" will be seen as stronger than the motivational strength of "Y." In other words, in most cases "X" will offer a more powerful reason to follow it, than to follow "Y."

Turning back to Wolf's argument discussed in Chapter Three, she claims that one could never have reason to act in opposition to *reason*. I take her use of the term *reason* to be in line with the meaning Scanlon has for judging something as a reason to act; not the sense that Scanlon uses when discussing the idea of seeing something as a reason to act. In other words, by *reason*, Wolf does not simply mean that there is some sort of consideration motivating one's action. In contrast, she sees *reason* as the "highest faculty, or set of faculties, there are—that is, to whatever faculties are properly thought to be most likely to lead to true beliefs and good values."[235] Thus, to act in opposition to *reason*, as Wolf defines it, is to act irrationally. In Scanlon's account, an act is irrational just in case the action performed is not motivated on the basis of a reason arrived at through judgment. Wolf claims that acting irrationally is something one may want the capacity to do, but one could never want to exercise such a capacity.[236] So, in Scanlon's terms, Wolf's assertion leads to the claim that one could never have reason to act in opposition to what one judged to be a reason to act. Thus, borrowing from Wolf's position, it follows that there is a stronger motivational reason to follow the reason that "judging"

[235] Wolf (1990) p.56
[236] Ibid., p.55,56

something as a reason provides, than to follow the reason that "seeing" something as a reason provides. Scanlon expresses this sentiment in his example of what constitutes an irrational act. So, for both Wolf and Scanlon, an irrational act stems from acting in opposition to the thing that is seen as a more reliable source of motivation. For Wolf that thing is acting in accordance with *reason*, and for Scanlon that thing is acting in accordance with the reason that judgment promotes. So for Scanlon, although there is not a distinct motivational capacity at work, there is a difference in the motivational strength between "judging" and "seeing." The more reliable source is judging, and thus it is the preferred motivational source.

This leads to a further question. What is it about the formulation of "judging" something to be a reason, and the formulation of "seeing" something as a reason, that produces this difference? For Scanlon they both motivate action through the use of a reason, so there must be something about how this reason comes to be that makes one more reliably advantageous. "Seeing" something as a reason to act is akin to an inclination or desire, whereas "judging" something as a reason to act seems to be akin to what Wolf would call *reason*. In judging if something is a reason to act, the rational capacity of the agent is put to use in a way that will most likely lead to the best decision. In this sense, "judging" works in the same manner as *reason* does for Wolf. Remember, that for Wolf the use of *reason* is "[…] most likely to lead to true beliefs and good values."[237] In like manner, "judging" for Scanlon performs the same function. Thus, I argue that "judging" for Scanlon works in the same manner as the use of *reason* does for Wolf. But what of desires or inclinations?

[237] Ibid., p.56

For Scanlon and the ER, the formation of a desire or inclination is not absent the use of reason. So, there must be a difference in how this reason is used in "judging" and "seeing." Schapiro offers insight into this answer when she asserts that "[T]he most natural and consistent way to fill out the extreme rationalist view is to conceive of desire as a sort of hasty, unreliable act of judgment."[238] So, although the formation of a desire involves a certain amount of judgment in its production, it is hasty and unreliable use of judgment. This seems to run counter to what Scanlon claims. He makes his distinction based on the idea that desires and inclinations arise out of "seeing" something as a reason, not out of "judging" something as a reason. In fact, for Scanlon it is the absence of the use of judgment that makes something a desire. So, in contrast to Scanlon, Schapiro's assertion points to a difference in the degree of judgment used in formulating a reason to act. So, on Schapiro's reading of the ER's position, "seeing" something as a reason to act is simply a hasty and unreliable form of "judging" something to be a reason. Later in her essay Schapiro appears to reformulate her claim that a desire is the use of hasty judgment into a claim about the hasty use of *reason.* Taking "seeing" something as reason to act to mean that one has a desire to act in that particular way, and taking "judging" something as a reason to act means one is using *reason* to prompt that particular action allows for us to look at the distinction in a different light, and one that seems more in line with Scanlon's position.

In drawing a distinction between desire and reason, Schapiro argues that for the ER, although the difference between desiring and reasoning is one of degree, there is some facet about reasoning that places it in a different light. Mainly, that reasoning is a deliberate act, and also more reliable.

[238] Schapiro (2009) p.245

> The difference between desire and reason, on this view is a difference in degree. Reasoning and desiring are the same activity but what we call 'reasoning' is a more deliberate and reliable exercise of this activity than 'desiring'.[239]

So, if the distinction is made between desiring and reasoning, then Schapiro's reading of the ER position seems in line with Scanlon's claim that the difference between desiring and reasoning is one of degree. In addition, Schapiro's remark offers insight into what constitutes this difference in degree. The difference as Schapiro sees it is found in the hasty reasoning involved in desiring. Schapiro remarks that one strength of this view is that it helps "explain how desire and reason can interact."[240] She claims that under this view desires can be seen as presenting "claims suitable for direct evaluation on the basis of reason. For, on this view, to reflect on one's desires is simply to double-check the hasty reasoning that led to the conclusions implicit in them."[241] However, she points out that this version may have problems with attributing responsibility to actions performed from reason. Schapiro claims that the ER must commit to the notion that "[T]here is no reason to think we should be less responsible for exercising our reason hastily than we are for exercising our reason carefully."[242] So it might be the case that the hasty use of reason in forming our inclinations and desires gives us reason to double check them before acting on them; however, if we do act on this hasty use of reason, then the ER must commit to the notion that we ought be just as responsible for those actions as we are for those actions we perform after careful scrutiny. After all, the ER claims that "desiring and reasoning are at the bottom exercises of the same capacity."[243] Thus, Schapiro thinks

[239] Ibid., p.245
[240] Ibid., p.245
[241] Ibid., p.245
[242] Ibid., p.245
[243] Ibid., p.245

that for the ER, there is no reason to claim that one escapes responsibility, while the other does not.

Further, Schapiro maintains that the ER makes a mistake by conflating desire and volition. She claims that there needs to be a distinction between desires and volition.

> Practical reason, insofar as it is the source of action, is the seat of agential authority. Hence, desires, too, must issue from the seat of agential authority. Extreme rationalism thus assimilates desire to volition, and in doing so, it overlooks the fact that desires are not attributable to us in the same way that actions are.[244]

So, Schapiro's remark offers reason to believe that the problem of responsibility for the ER is rooted in mistaking desire as a volition. People are not generally held responsible for things they desire unless they act on the desire. So, Schapiro indicates that there is a difference between actually acting on a desire, and merely possessing a desire. She sees this as something that is missing in the ER account. In response, it is the case that that the ER sees desiring and reasoning as exercising the same capacity; however, the ER is not necessarily committed to the notion that desires are attributable to us in the same way as actions. It is true that by attributing the use of reason, even if it is careless and hasty use, to desires, the ER is assimilating desires to volition. However, Schapiro's assertion conflates the action that follows volition with the volition itself. Now, there is a connection between one's volition and the action that follows, but they are not one and the same. I take the meaning of volition to be akin to an act of will that precedes an action, and that this action is the deliberate result of the volition. Lets call the action that follows one's volition the "action proper." Thus, it is the case that an act of volition is followed by an action, but the act of willing in itself is not the "action proper." To clarify, it may be the case that the act of willing is itself a physical act, but it is not something

[244] Ibid., pp.245,246

that we have empirical access to in the same manner as the "action proper." Thus, the "action proper" is seen in a different light than the volition itself. In other words, like desiring, one can have a volition, but that volition is not itself the "action proper" anymore than one's desire is itself identical with the action performed on the basis of that desire. If volition is an act of will that precedes an action, and the ER assimilates desires to volition, then the ER is committed to maintaining that desire is an act of the will. In this sense, a desire to "X" may be best described as a careless and hasty act of the will. However, the difference between volition and the "action proper," allows for the ER to avoid being committed to a notion of desire that makes desire attributable in the same sense as the "action proper." Thus, Schapiro is mistaken to claim that the assimilation of desire to volition causes a problem for the placement of responsibility for the ER.

In sum, the ER position as described by Schapiro assimilates inclination to an act of the will. Unlike the EAR, the ER has no problem asserting that actions can be the result of inclination. However, because the ER sees inclinations as involving a certain amount of *reason* in their production, there is still a problem implementing the ER position within the naturalistic framework I endorse. In attributing *reason* to the formation of inclinations, the ER must either posit reason to all animals, make a distinction in kind between the mind of the lower animals and the mind of the human animal, deny that the lower animals act altogether, or make a distinction between the way inclinations arise in the lower animals and the way they arise in the human animal. Again, like the EAR, to posit *reason* to all animals seems a stretch at the least, and to make a distinction in kind between the mind of the human animal and the mind of all other animals is incompatible with the naturalistic framework I argue for in Chapter One.

In reference to the third option, as stated previously, the Darwinian naturalism I endorse sees the difference between action and mere behavior as a matter of degree. Thus, under this framework there is no reason to think that the lower animals simply do not act.

Prima facie the fourth option appears compatible with the naturalistic framework I endorse; however, it is difficult to see how this claim can be maintained. If inclinations are the product of *reason*, then to claim that the inclinations of the lower animals are produced differently than the inclinations of the human animal is to make a distinction in kind. Thus, option three results in the implementation of option two. Consequently, in order to allow for the ER's position to be implemented into my naturalistic framework, the ER is left with either attributing *reason* to all animals, or positing a third motivational source.

One might argue that instinct is the driving force behind the lower animals actions, and that instinct is void of reason. Thus, the ER could posit three separate motivational sources for action; instinct, inclination, and volition. Therefore, there is no reason why the lower animals cannot be said to act without the use of reason, whilst the actions motivated by inclination for the human animal do use reason. Now, as long as the ER is willing to commit to the idea that at least in some instances humans act from instinct, then positing a third source of motivation to the lower animals relieves most of the problems that the ER account has within my naturalistic framework. It avoids the need to posit *reason* to all animals, and it allows for the distinction between the human animal and all other animals to be seen as one of degree rather than kind.[245] To clarify, instinct is the common motivational source between the rest of the animal kingdom and

[245] The ER could argue that in such instances what is being performed is best seen as mere behavior, not as an action. Again, as I stated earlier, on a Darwinian naturalism the difference between action and mere behavior is one of degree, and thus this response seems to do little to deflect the problem.

the human animal. This opens the door for the idea that these shared instincts are the foundation which through evolution have evolved into other motivational sources.[246] Such a claim lends itself to the notion that the mind of the human animal has emerged out of a shared foundation with the rest of the animal kingdom. Still, if the ER's position is to maintain that the difference between the human animal and all other animals is one of degree, then in order to avoid positing *reason* to all animals, the ER may need to commit to the notion that all animals with the exception of the human animal act on instinct alone. However, it seems difficult to maintain that the higher primates act on instinct alone. Now, there is nothing impossible required to maintain the claim that all animals excepting the human animal act on instinct alone; however, it is well documented by primatologist that chimpanzees and bonobos display certain behaviors that seem to be beyond the capacity of instinct alone. In his book *Good Natured*, Frans de Waal notes that chimpanzee behavior differs greatly between different chimpanzee communities. De Waal states

> Field primatologists have noticed differences in tool use and communication among populations of the same species. Thus, in one chimpanzee community all adults may crack nuts with stones, whereas another community totally lacks this technology. Group specific signals and habits have been documented in bonobos as well as chimpanzees. Increasingly, primatologists explain these differences as learned traditions handed down from one generation to the next.[247]

So, in this instance we have evidence of behavior that is being directed by learning, and thus appears to be the result of more than simply instinct. Now, such evidence does not necessarily point to the use of *reason*. It may be the case that these chimpanzees are hard wired to mimic others of the same group, so it might be argued that this behavior is

[246] This idea has a well documented history. Some examples can be found in Darwin (1871), and de Waal (1996, 2006). Also, a good discussion of this claim can be found in R.J. Richards (1987), particularly in chapter 5.

[247] De Waal, Frans. (1996). *Good Natured*. Cambridge, Massachusetts: Harvard University Press. p.210. From Mcgrew (1992) and Wrangham et al. (1994).

instinctive to the chimpanzee. However, the general notion of primatologist is that this behavior is not simply instinctive.[248] Thus, if the ER is forced to commit to the notion that all animals excepting the human animal act on instinct alone, then they find themselves in contradiction with the current empirical evidence offered by primatologist. So, in order to avoid conflict with current evidence, if the ER's account is to fit in with the naturalistic framework I promote, then they must posit *reason* to all animals, or allow that some animals outside of the human animal possess reason, and that the rest of the animal kingdom although deficient in reason, act from instinct. The ER could view animals like the higher primates in the same light as human beings, and thus posit the possession of inclinations to these animals, while positing instinct as the sole motivating factor behind action for the rest of the animal kingdom. However, the ER claims that reason is needed in order to motivate action. Remember that Scanlon claims "the motivational force behind all action comes from the agent's taking-something-as-a-reason-to-act."[249] Thus, the ER must commit to both the notion that those animals who lack reason, also lack the capacity to act and to the notion that human beings cannot *act* from instinct. Therefore, in order for the ER account of inclination to maintain compatibility with my naturalistic framework, they must either commit to the notion that all animals without the faculty of reason do not act, which is in direct conflict with the Darwinian naturalism I endorse, or posit reason to all animals, which is in conflict with the currently accepted empirical evidence. But, this does not expose all the difficulties

[248] See Boesch et al. (1994) Boesch cites a study which showed that nut- hammering was absent on one side of a large river, yet was customary on the other. In addition, many of the behaviour patterns concern tool use, and particularly where this is complex, the evidence that chimpanzees readily and flexibly learn such object use (Byrne, 1995; McGrew, 1989) means that these are poor candidates for merely instinctual variations. (Whiten, Goodall, McGrew, Nishida, Reynolds, Sugiyama, Tutin, Wrangham, Boesch. (2001) "Charting Cultural Variation in Chimpanzees" *Behaviour*, Vol.138, No. 11/12 (Dec.,2001), pp.1481-1516)
[249] Schapiro (2009) p.240

with this account. A further problem arises for the ER when we take a look at the possibility of drawing a distinction between hasty and non-hasty use of reason.

We have established that the extreme rationalist position maintains that inclinations are not absent the use of reason, but rather are the result of hasty reasoning. Now, remember that for Scanlon "the motivational force behind all action comes from the agent's taking-something-as-a-reason-to-act."[250] Thus, an action even if the result of an inclination, is always the result of the use of reason. So, unlike the EAR position, the distinction the ER draws between an action caused by an inclination, and an action caused by a volition is one of degree, not kind. However, although one of degree, the ER does still draw a distinction between volitions and inclinations on the basis of how reason is used in the production of each. The capacity to distinguish between the cause of an action for the ER rests on the notion that an inclination makes hasty use of reason, whereas a volition does not; however, in order for the ER to draw this division, it must make a distinction between what it means to use reason in a hasty manner, and what it means to use reason in a non-hasty manner. How this distinction is made by the ER is crucial if the ER account of inclination is to maintain compatibility under the umbrella of DST.

The conceptual framework proposed by supporters of DST problematizes the notion that we have the capacity to isolate the causal impetus of the various developmental resources involved in the construction of an organism's nature. DST supports the notion that "an organism's nature is just the organism itself, in whatever

[250] Ibid., p.240

environment it finds itself."[251] Oyama notes that "[…] no organism can exist or even be characterized independently from a richly elaborated world on many scales of magnitude, that causal responsibility for the whole or for a trait cannot be partitioned among the parts of the system […]"[252] Now, if the conceptual framework offered by DST gives reason to believe that we lack the capacity to isolate these resources, and thus determine the particular isolated cause of a developmental outcome, then the ER distinction between hasty and non-hasty reasoning will need to be made in light of this assumption if it is to be compatible with DST.

DST stresses the importance of the mutual interaction between organism and environment. The organism and environment are mutually constructed through this interaction. Included in this development is the behavior of the organism. So, the development and behavior of a biological organism is included in the construction of the organism. Now, if the use of reason is seen as a behavior, and DST maintains that the behavior of an organism is mutually constructed through the interaction with environment, then the development of the use of reason is part of this construction, and thus is itself the result of this mutual interaction. Further, how this reason is used will be contingent upon this interaction. Thus, whether one uses hasty reasoning or not will be contingent on the relationship between the organism and its environment. So, there are at least two issues of concern here. 1) The conditions that result in the production of reason

[251] Oyama, Susan (1999). "The Nurturing of Natures" European Academy Conference: "On Human Nature," Symposium on Genes, Evolution and Human Nature, March 17, 1999. Bad Neuenahr-Ahrweiler, Germany. In Armin Grunwald, Mathias Gutmann, & Eva M. Neumann-Held (Eds.) (2002). *On Human Nature. Anthropological, Biological and Philosophical Foundations* (pp.163-170). Studienreihe der Europäiswchen Akademie. New York: Springer Verlag. p.2
[252] Ibid., p.7

in general. 2) The conditions that result in the use of this reason in a hasty or non-hasty manner.

Addressing the first issue adequately would take us beyond the scope of this project; however, it will help to broach this topic in at least a cursory manner. The naturalistic framework that is at the base of this project supports some notion of evolutionary epistemology. So it follows, that in examining the first issue I am committed to offering a naturalistic account of reason that draws on Darwinian evolution. Now, following the most rudimentary notion of Darwinian evolution, we might say that the capacity to reason has evolved in the same manner as any physical trait. If our brains are the product of evolution, and brains are necessary for the capacity to reason (at least on this planet), then the capacity to reason is directly connected to the evolution of the brain. The evolution of the brain may then be cashed out in terms of the survival value associated with this evolution. Thus, the capacity to reason under this rudimentary account, may be best seen as the result of its capacity to aid in survival.

I do support Darwinian evolution; however, I am also committed (at least in this project) to a treatment of this position under the umbrella of DST. Thus, I do not argue that the capacity to reason should be seen solely as the result of its survival value to the organism. Further, I do not argue that the capacity to reason evolved *in order* to aid in survival, this would seem to imply a teleological explanation for the evolution of reason, and I, as well as Darwin, do not wish to promote a teleological account of evolution. What I do promote, following Oyama, is a notion of evolution that sees it as change in the developmental system.[253] So, the development of reason under this account would be the result of changes in the system. Now, if as Oyama notes, the "[…] causal

[253] Oyama, Griffiths, and Gray (2001) p.6; Oyama, Susan. (2000) p.81

responsibility for […] a trait cannot be partitioned among the parts of the system, and everything that organism does and is rises out of this interactive complex, even as it affects that very complex,"[254] then reason should be seen as the result of this interaction. The development of reason may be best characterized under this account as having been constructed through evolution, and since evolution is seen as a "[…] result of organism-environment systems changing over time,"[255] the change in the brain that leads to the development of reason should be seen as the result of the change in the organism-environment system. It is not the case that reason was developed in order to aid in the survival of the organism, but rather that it was developed out of the mutual relationship between organism and environment as a result of an interactive complex in which both organism and environment mutually construct each other. In this sense, it seems that the development of reason is as much of an aid to the survival of the environment inhabited by organisms that possess reason, as it is to the organisms themselves. To clarify, the environment of which an organism is part, is the kind of environment that results from the interaction between organism and environment, thus, the emergence and sustainability of an environment that is inhabited by organisms that possess reason will be affected by the fact that these organisms possess reason. So, in order for this environment to emerge, and sustain, it must be the case that the development of reason in the organisms which inhabit this environment plays a role in the development of this environment. In other words, the environment that results from the interaction with reason possessing organisms is contingent on the fact that these organisms in fact do possess reason. If these organisms did not possess reason, then the environment would

[254] Oyama (1999) p.7
[255] Oyama, Griffiths, and Gray (2001) p.2

likely be much different. under DST, the development of reason should be seen as the result of a dialectical relationship between organism and the environment of which the organism is part. It should be furthered noted, that this explanation has implications for the discussion of NADST in Chapter Three.

In the discussion of NADST in Chapter Three, it was argued that autonomy admits to degrees, and that the capacity to be more or less autonomous rests on the number of possible alternatives available to an organism. Further I argue that the more possible alternatives available to an organism the greater the chance of sustainability for that organism, and the environment of which that organism is part. Accordingly, for NADST the evolution of reason would offer another alternative, and thus be seen as aiding in sustainability.

Addressing the second issue, on what conditions result in the use of reason in a hasty or non-hasty manner, it must be noted that there are times when an agent has no choice but to come to a decision in short time. If I have five minutes to come to a decision on what action I will perform, then I necessarily must make the decision within this five minutes or not act at all. If I have all the time in the world to think about my action, then I will not be subject to the same constraint; however, to use all of this time is not a realistic option. Presumably, my life will end before all the time in the world is spent, and if not, it will certainly end when all the time in the world has been spent. So, in order to actually perform an action, one must cut off the reasoning process at some point, and act, or be left in the position of Buridan's ass. But, it is still in question as to when to cut off this process, and not be guilty of using hasty reasoning. If I have all the time in the world, then I may be guilty of using hasty reasoning if I do not take all this time to

decide. However, as explained previously, I will never act if I do not cut off the reasoning process at some point. Thus, if it is even possible to act on reason in a non-hasty manner, then there must be some point at which I can cut off this reasoning processes and not be guilty of using hasty reasoning. If not, then the only type of reasoning available is hasty reasoning. But, if this is the case, then the ER loses the notion of volition altogether. In other words, if the only reasoning available is hasty, then the motivational source behind and action for the ER can never be a volition. Also, it is worth noting that one could take the counter position that all reason is non-hasty; however, if the only reason available is non-hasty, then the motivational source behind and action for the ER can never be an inclination. So, this does not help the ER. Thus, if the ER is to avoid the loss of volitions or inclinations as possible motivational sources behind action altogether, they must commit at least to the idea that there is such a thing as hasty and non-hasty reasoning, and that there is in-principle a distinction between the two. Furthermore, in order for the distinction to *actually* be made by the ER, they must commit to the notion that there is in-practice a method for distinguishing between hasty and non-hasty reasoning. So, there are two questions at stake here. 1) What does the notion of an in-principle distinction between hasty and non-hasty reasoning entail? 2) What does an in-practice method for distinguishing between hasty and non-hasty reasoning entail? It seems the ER will need to have an answer for both of these questions if they wish to maintain this distinction.

4.4 Schapiro's Middle Way

Schapiro argues that the way to avoid the extremes found in extreme rationalism and extreme anti-rationalism while maintaining their respective insights is to "distinguish between two agential capacities that jointly characterize us as human agents."[256]

> One is a capacity to demand and offer justifications to ourselves and so to take considerations as reasons. The other is a more primitive capacity to see objects as calling for certain responses, independent of any justification. It is the latter capacity, I claim, that accounts for the motivational force of inclination.[257]

So Schapiro, unlike Scanlon, sees the motivational source of inclinations as failing to provide a reason for action. For Schapiro it is not simply a case of hasty reasoning that leads to an inclination, it is the absence of reasoning altogether. Schapiro does see inclination as part of our agential capacities. So, actions motivated by inclination are not examples of non-agential actions. They are; like actions motivated by reason, actions that are the result of our agential capacity. She sees inclinations as being part of one of the two agential capacities that constitute a human being. In contrast to Scanlon, she argues that inclination lacks a level of reflection. She claims that "Scanlon's account intellectualizes inclination, freighting it with a layer of reflection that it does not have, simply qua inclination."[258] She ultimately claims that the motivational source behind inclination manifests itself as an imperative.

> Suppose I am terribly thirsty. I have been hiking […] on a hot summer day, and I have run out water. My throat is painfully dry, and I am aching for a drink. […] Scanlon would claim that, in this situation, I am insistently seeing the dryness in my throat as reason to drink water and this is what is motivating me. But I contend that a more primitively normative thought could suffice to account for the content and motivational force of inclination. It is not that I am seeing dryness in

[256] Schapiro (2009) p.246
[257] Ibid., p.246
[258] Ibid., p.246

> my throat as a reason to drink water but rather that I am seeing water as to-be-drunk. […] My thirst involves my seeing water in an imperatival mode, seeing it as "calling for" drinking . […] the salient normative thought is not that of reason. It is more like a thought of obligation, law, or practical necessity.[259]

So, for Schapiro the thought that goes through one's mind in such a scenario is simply, "Drink!" There is no reasoning involved in the imperative to drink. Schapiro sees the inclination to "A" as lacking rational justification. Thus, in this example there is no rational justification involved in the motivation to take the drink of water. To be clear, she does not claim that actions which have been prompted by inclination are irrational, they do not act in opposition to reason, but rather act without regard to reason at all. Thus, Schapiro defends a view "according to which our capacity for inclination is both agential and nonrational."[260] So, for Schapiro agency does not necessitate the use of rationality. If inclinations motivate actions without justification, and actions motivated by inclination are agential acts, then it follows that for Schapiro the use of rationality has little to do with the agential character of an action. However, she does seem to think that the use of rationality has something to do with the type of agential capacity at work.

In drawing her distinction of agential capacities further, Schapiro introduces what she calls "object-based" agency and "principle-based" agency. She defines object based agency as one in which there are no justificatory capacities at work. She states

> […] there is conceptual room for a distinct kind of agency that does not presuppose justificatory capacities and that this kind of agency plausibly characterizes human inclination as seen from the perspective of one who experiences it. I am going to call this kind of agency "object-based" in contrast to "principle-based" agency.[261]

She sees the capacity to demand and offer justifications to ourselves, and thus take considerations as reasons to act, as principle-based agency. In contrast "inclination has

[259] Ibid., p.246
[260] Ibid., p.256
[261] Ibid., p.250

the structure of object-based agency."[262] Further, she argues that "having an inclination involves having and being motivationally responsive to an imperatival conception of an object and that this does not involve further thought of a justification for responding as the imperative directs."[263] Unlike Scanlon, who claims that inclination involves taking into account certain considerations as a reason to act, Schapiro sees inclination as void of any considerations. So her account amounts to the notion that the human animal is constructed out of two different agential capacities, one of which uses *reason*, and the other which does not.

By asserting that human agents are comprised of two agential capacities,[264] Schapiro avoids some of the problems that are associated with implementing the EAR and the ER positions within the naturalistic framework I endorse. If, unlike the account the ER posits, it is the case that inclinations are nonrational, then Schapiro's account avoids the need to posit *reason* to all animals in order to account for the production of inclinations in the lower animals. Thus, her account allows for both the lower animals and the human animal to act from inclination without having to posit a difference in kind between the human animal and the rest of the animal kingdom.

In addition, she suggests that the felt need to "X," guides the inclining part of the agent in the way that instinct guides an animal.[265] In this sense, it seems that Schapiro has collapsed the distinction between the motivational capacity of instinct in the lower animals, with the motivational capacity of inclination in the human animal. Thus, she must be committed to the idea that the lower animals are motivated by something akin to

[262] Ibid., p.250
[263] Ibid., p.251
[264] Ibid., p.246
[265] Ibid., p.251

object-based agency. This points to a difference in degree rather than a difference in kind between the lower animals and the human animal. She adds strength to this assumption later when she claims:

> […] when I am inclined, I necessarily see a certain action as to-be-done in virtue of features that make doing it look good to me. Some version of the "guise of the good" thesis does characterize object-based agency. But, again, this does not mean that I see the goodness of those features as justifying my doing the action. What it means is that looking-good-to-me functions as the basic criteria any action must fill in order for it to appear to me as to-be-done. In other words, each of my inclinations manifests my inclining self's responsiveness to a basic imperative to seek my apparent good and to shun my apparent bad. This is consistent with the analogy to animal action, because creatures of instinct characteristically act in light of what they sense of their weal and woe.[266]

She sees seeking good and avoiding bad as a basic imperative inherent in the production of any inclination. So object-based agency is not entirely arbitrary. The fact that the inclination to perform the action is at base rooted in the perception that either something bad is avoided or good attained shows that there is at least some necessary criterion involved in the object-based agential capacity. She is quick to point out that this should not be seen as a reason to perform the action, but seen simply as the necessary criteria for any inclination. In addition, she maintains that this basic imperative is seen in the motivation of the lower animals as well. So, the fact that she draws a connection between the basic criteria involved in the activity of inclining for the human animal, and the basic criteria involved in the instinctive behavior of the lower animals shows that her position is compatible with the notion that the difference between the lower animals and the human animal is one of degree. This lends further reason to believe that her account can work within the naturalistic framework I promote.

The claim that object-based agency is akin to the instinctive acts of the lower animal exposes a crucial similarity between instinct and inclination. Assuming an

[266] Ibid., p.253

evolutionary explanation, the instinctive actions of the lower animals are the result of a gradual evolutionary process that results in the maintaining of traits that maximize fitness, and the loss of those traits that are most detrimental to fitness.[267] If as Schapiro argues, inclination is at the foundation motivated by the seeking of one's apparent good and the shunning of one's apparent bad, then inclination appears to function in the same manner as instinct. Both motivational sources are at their base imperatival motivators that promote the apparent good of the organism; but, they do so without the need for the organism to reflect on why they ought to perform the action being prompted. In this sense, as the EAR maintains, inclination and instinct are in a passive relationship with the organism. So, according to Schapiro's account, the actions prompted by inclination are similar to actions prompted by instinct; they are not based on the use of *reason*. Furthermore, if as Schapiro claims, to be inclined manifests itself as an imperative act, and that act is one which employs no reason or justification, but rather simply is the felt need to perform the act, then there seems little difference between an inclination and instinct for Schapiro. Before proceeding any further it would be good to flush out exactly what is meant by the term instinct. Once this is completed, I return to Schapiro's account of inclination and make the case that for Schapiro, inclination and instinct share such a similar makeup, that under her account the two can be seen as different in degree rather than kind.

[267] Sober, Elliott (1994) *From A Biological Point Of View*. New York: Cambridge University Press. pp. 95-99. Also, see Darwin (1871) pp. 66,67

4.5 Defining Instinct

What one means by the expression instinctual behavior can be quite unclear. The term instinct is used in a variety of manners, and some of these uses appear in direct conflict with other uses. Andrew Cherry states that "words like *instinct* have been loosely associated with behaviors that are not related to learning or reasoning."[268] Although it appears that human beings have some inborn and non-learned dispositions, identifying these dispositions is problematic. Typically a distinction is made between attributes that appear to be products of environmental influence and attributes that are called instinctual; however, environmental influences play such a large role in shaping organisms that it seems impossible in most instances to isolate attributes in a manner that allows for the distinction to be made and avoid being arbitrary. Over the history of the term there has been disagreement over exactly how to avoid this problem. There appear to be two main camps, one which posits instincts as solely phylogenetic in origin, and the other which allows for ontogenic influence in their production.[269] Lets turn to a discussion of these positions.

Cherry claims that "[A]t first, instinct was considered to be a feature of a person's soul or characteristics conferred on someone by a god."[270] Such an account admits to supernatural explanations, and thus is of the sort offered prior to the Copernican and scientific revolutions. Since then the use of the supernatural to understand most things

[268] Cherry, Andrew. (1994). *The Socializing Instincts*. Westport, CT: Praeger Publishers, p.28
[269] Hereafter the solely phylogenetic in origin camp will be called, P-camp, and the camp which allows for ontogenic influence will be called, O-camp.
[270] Cherry (1994), p.28

has gone out of fashion, and the concept of instinct is no exception. However, there still seems to be a similarity in this use of the term, and the use that has become commonly accepted by the scientifically-influenced modern layman. In both cases talk is about attributes present in an agent, and whose presence or absence is beyond the control of the organism or any other individual without supernatural abilities. One might be able to avoid acting on an instinct, but this is not the eradication of an instinct, it is simply the suppression of the instinctual urge. Even though it is possible to curb the strength of instincts, it is beyond the control of the organism as to whether it has such instincts to begin with. One might argue that this points to the innateness of instincts. This similarity seems to have persisted in some fashion from the earliest use of the term to the present.

In *Taking the Stink Out of Instinct*, Patrick Bateson offers a list of some of the various meanings which the term instinct has denoted:

The Various Meanings of Instinct

1. Present at birth (or at a particular stage of development)
2. Not learned
3. Develops before it can be used
4. Unchanged once developed
5. Shared by all members of the species (of the same sex and age)
6. Organized into a distinct behavioral system (such as foraging)
7. Served by a distinct neural module
8. Adapted during evolution
9. Differences between individuals due to genetic differences[271]

Each item in the list that Bateson offers appears to articulate a concept of instinct which escapes environmental influence.[272] Assuming evolution, the idea seems to be that

[271] Bateson, Patrick. (2000). 'Taking the Stink out of Instinct', in Rose, Hilary & Rose, Steven (Eds.) *Alas, Poor Darwin: Arguments Against Evolutionary Psychology*., New York: Harmony books, p.198

[272] It has been argued that items present at birth do not necessarily escape environmental influence. See, Lehrman, Daniel. "A Critique of Konrad Lorenz's Theory of Instinctive Behavior." The University of Chicago Press: *The Quarterly Review of Biology*, Vol. 28, No. 4, (Dec. 1953). I agree with this notion, and will address such arguments later in the manuscript. However, it seems that the notion of present at birth in the sense here, is one that does not take into account the possibility of learning in the embryonic stage.

instincts are primarily phylogenetic in origin (hereafter PIO). In other words, they are the result of evolutionary history rather than the result of individual development, learning, or conditioning. Recognized for his influence in the early development of the field of social psychology, and as one of the first individuals to develop a theory of instinctual behavior, William McDougall offers a nice concise account of instinct that promotes just this point.

In his book, *An Introduction to Social Psychology*, McDougall defines instinct as

> […] an inherited or innate psychophysical disposition which determines its possessor to perceive, and to pay attention to, objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in regard to it in a particular manner, or at least, to experience an impulse to such action.[273]

McDougall suggests that there is a "disposition" to perceive particular qualities. We might say that there is a disposition to attend to certain things in a certain way. Perception is directed by this disposition, and as such certain behaviors are incited that would not be incited under a different perception. Lauren Wispé, in her book *The Psychology of Sympathy*, remarks that McDougall's definition of instinct is comprised of three parts: a perceptual, or seeing aspect; a conative, or striving aspect; and an emotional core.

> His theory rests on the assumption that emotions are bodily adaptations to instinctual strivings which are instigated more or less naturally by the perception of certain objects. An instinct, therefore, is a way of perceiving, feeling, and doing[274]

Accordingly under McDougall's position one perceives certain objects due to disposition, and as a result of this perception a particular feeling arises, and this feeling incites the impulse to act in a certain manner. He stops short of saying that one will actually perform the action incited, but one will at least "experience an impulse to such action." Thus, any action performed as a result of this impulse may be cashed out as an instinctual action.

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[273] McDougall, William (1908). *An Introduction to Social Psychology*. London: Methuen, p.30
[274] Wispé, Lauren (1991). *The Psychology of Sympathy*. London: Plenum Press, p.45

Further, the impulse that McDougall speaks of appears to fall under the criteria of innateness offered by Nikolass Tinbergen; it is distinct from those things which are learned or developed.[275] In addition, McDougall suggests that an instinct "determines its possessor to perceive, and to pay attention to, objects of a certain class."[276] By using the term 'determines,' McDougall imports the notion that instincts interfere with one's freedom. Under a broadly compatibilist account of freedom, freedom is the result of one's own will being causally responsible for action. Thus, if instincts determine an individual's attention, then they are a constraint on the freedom of the individual's will. Moreover, if one's instincts determine one's impulse to act in a certain manner, then the capacity for such impulses to emerge in the course of individual development seems diminished. In other words, if the instinctual impulse is determined, then it is not the product of ontogeny; it is not the result of individual development, but rather the result of phylogenetic history. Thus, the use of the term 'determines' to denote the power of an instinct displays McDougall's commitment to the idea that these impulses are not individually developed; but are rather, at least in the sense that Tinbergen offers, innate. If instinctual impulses are innate, then any action that is the result of an instinctual impulse may also be characterized as innate. Therefore, instinctual actions are those actions that are the result of innate factors, and innate factors, in Tinbergen's sense, are not ontogenetic in origin (hereafter OIO). In order to further aid in establishing the connection between the innate and the instinctual, it will be beneficial to look at another valuable notion of what constitutes instinct found in the early writings of Konrad Lorenz.

[275] Tinbergen, Nikolass (1951). *The Study of Instinct*. New York: Oxford University Press, p.2
[276] McDougall (1908), p.30

In describing Konrad Lorenz's early account of instinctive behavior Ingo Brigandt suggests that for the early Lorenz "only […] innate components qualify as instinctive behavior."[277] Further, Brigandt suggests that Lorenz draws a distinction between the innate and the learned or developed. Such a dichotomous approach suggests that "there are neither ontogenetic nor phylogenetic transitions between innate and learned components of behavior.[…] Instinctive behavior patterns are rigid and do not get modified or become more flexible due to experience in the course of ontogeny."[278] Thus it seems that Lorenz views the notions of phylogeny and ontogeny as a dichotomy. Further, since he argues that instinctive behavior is rigid, and thus resists modification through ontogeny, then actions from instinct cannot be the result of ontogeny. Consequently, under this account, instincts must be PIO. Furthermore, it seems clear for both Lorenz[279] and McDougall's accounts that the impulse to act must be innate in order for an action to be the result of an instinct. It still seems unclear whether innateness is a sufficient condition for something to be an instinct; however, since it is necessary, and because the innate, as defined by these writers, is necessarily not the result of ontogeny, but is rather PIO, we have further reason to believe that for Lorenz and McDougall instincts must be PIO. In addition, according to Tinbergen, actions that are instinctual must be innate. Since innate behavior as described by Tinbergen, has "[…] not been changed by learning processes,"[280] and in view of the fact that change by learning processes implies ontogenetic influence, it must also be the case that instinctual behavior is devoid of ontogenetic influence for Tinbergen. In sum, for Lorenz, McDougall, and

[277] Brigandt, Ingo. (2005) "The Instinct Concept of the Early Konrad Lorenz." *Journal of the History of Biology*, Vol.38, No.3 (Autumn 2005), p.571
[278] Ibid., p.571
[279] At least under Lorenz's early account of instinct.
[280] Tinbergen (1951) p.2

Tinbergen instinct is PIO. This view is not accepted by all, and thus it is necessary to look at accounts that argue against this claim. One place to look is in an argument offered by Daniel Lehrman.

Lehrman begins his critique of Lorenz by drawing attention to Tinbergen and Lorenz's use of the term innate. He claims that Lorenz and Tinbergen use the term innate as if it "surely referred to a definable, definite, and delimited category of behavior."[281] However, Lehrman maintains that the term is not without ambiguity. Further, due to the heuristic value which Lorenz and Tinbergen place on the concepts of innate and not-innate, if we wish to flush out the instinct problem, then it is necessary to "consider carefully just what it means to say that a mode of behavior is innate."[282] Lehrman notes that it is

> […] apparent that Lorenz and Tinbergen, by "innate" behavior, mean behavior which is hereditarily determined, which is part of the original constitution of the animal, which arises quite independently of the animal's experience and environment, and which is distinct from acquired or learned behavior.[283]

Further, he maintains that either explicitly or implicitly, Lorenz and Tinbergen regard the major criteria of innateness as entailing:

> (1) the behavior be stereotyped and constant in form.
> (2) it be characteristic of the species.
> (3) it appear in animals which have been raised in isolation from others.
> (4) it develop fully formed in animals which have been prevented from practicing it.[284]

Lehrman claims that unquestionably there are behavior patterns which meet these criteria; however, Lorenz's attributing of these patterns as innate, does not necessarily offer any real assistance to the scientific understanding of their origins.[285] He cites

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[281] Lehrman, Daniel. (1953) "A Critique of Konrad Lorenz's Theory of Instinctive Behavior." The University of Chicago Press: *The Quarterly Review of Biology*, Vol. 28, No. 4, (Dec. 1953). p. 341
[282] Ibid., p.341
[283] Ibid., p.341
[284] Ibid., p.341
[285] Ibid., p.341

several cases of empirical evidence showing that the soundness of the criteria for innateness offered by Lorenz and Tinbergen can be brought into question. I will focus on one. Lehrman argues that items present at birth do not necessarily escape environmental influence. In order to support this claim he references an analysis of the domestic chicks characteristic pecking.

> Domestic chicks characteristically begin to peck at objects […] soon after hatching. The pecking behavior consists of at least three highly stereotyped components: head lunging, bill opening and closing, and swallowing. […] This pecking is stereotyped, characteristic of the species, appears in isolated chicks, is present at the time of hatching, and shows some improvement in the absence of specific practice. Obviously, it qualifies as an "innate" behavior, in the sense used by Lorenz and Tinbergen.[286]

The pecking behavior of chicks meets all the criteria for innateness offered by Tinbergen and Lorenz; however, Lehrman argues that some of the claims made by Tinbergen and Lorenz in reference to the innateness of such behavior overreach what can be expected to be soundly warranted. Having offered an example of behavior that appears to fit all the criteria of innateness given by Lorenz and Tinbergen, Lehrman then cites a study on domestic chicks done by Z.Y. Kuo in 1932 which Lehrman believes exposes the unsoundness in Lorenz and Tinbergen's account. In the study it was noted that

> As early as three days of embryonic age, the neck is passively bent when the heartbeat causes the head to rise and fall. The head is stimulated tactually by the yolk sac, which is moved mechanically by amnion contractions synchronized with the heartbeats which cause head movement. Beginning about one day later, the head first bends actively in response to tactual stimulation. At about this time, too, the bill begins to open and close when the bird nods—according to Kuo, apparently through nervous excitation furnished by the head movements through irradiation in the still-incomplete nervous system. Bill-opening and closing become independent of head-activity only somewhat later. After about 8 or 9 days, fluid forced into the throat by the bill and head movements causes swallowing. On the twelfth day, bill-opening always follows head-movement.[287]

Lehrman maintains that "Kuo's observations strongly suggest several interpretations of the development of pecking. […] the head-lunge arises from the passive head-bending which occurs contiguously with tactual stimulation of the head while the nervous control

[286] Ibid., p.341 (Shepard and Breed 1913; Bird 1925; Cruze 1935; and others)
[287] Lehman (1953) pp.341,342

of muscles is being established. By the time of hatching, head-lunging in response to tactual stimulation is very well established."[288] The data collected from Kuo's observations show that behaviors present at birth are not necessarily unlearned or absent environmental influence. If as Lehrman asserts, Lorenz and Tinbergen's meaning of innate behavior entails that the behavior arises "independently of the animal's experience and environment, and […] is distinct from acquired or learned behavior," then Kuo's evidence exposes a problem with the notion of innateness that Tinbergen and Lorenz defend. The basic idea is that there is nothing preventing learning, conditioning, or environmental influence while in the embryonic stage. Thus, if part of the meaning of innate behavior is that it arises independent of external influences, then to make claims about the innateness of a behavior on the basis that it is stereotyped, characteristic of the species, appears in isolation, is present at the time of hatching or birth, and shows some improvement in the absence of specific practice, can lead to faulty assumptions. Kuo's work proves problematic for their account since Tinbergen and Lorenz maintain that innate behavior is absent external influence.

A major obstacle for Lorenz and Tinbergen is that in order to know that anything actually meets the demands of their criteria for innateness, we need to be able to isolate it from the possibility of external influence. However, a basic criterion for any such attempt is the existence of the object in question. Any attempt to isolate an object requires that it be in-the-world. If something is in-the-world, then it is impossible to isolate it from any external influence. Lehrman asserts, that "[I]t must be realized an animal raised in isolation from fellow-members of his species is not necessarily isolated from the effect of processes and events which contribute to the development of any particular behavior

[288] Ibid., p.342

pattern."[289] He then notes that the important question is not if the organism is isolated, but what is it the organism is isolated from.[290] All this points to a difficulty in our ability to know the extent the effect of these processes have on any particular behavior pattern. In this sense, it seems that it is just not within our capacity to identify the exact extent of influence any one factor has on another. Lehrman indicates a further reason to see this as a problem when he claims that "[…] the systematic stability of a characteristic does not indicate anything about its mode of development."[291] So, the fact that certain behavior patterns are characteristic of a particular species tells us very little about the development of these patterns. In sum, at this point in time, we simply do not have epistemological access to the items that meet all the criteria for innateness offered by Lorenz and Tinbergen. Thus, if innateness is a necessary criteria for something to be considered instinctive, then Lorenz and Tinbergen's account of innateness makes the capacity to deliver empirical evidence of instinctual behaviors extremely difficult, if not impossible. At the very least, Lehrman's critique offers reason to believe that instincts are not necessarily PIO.

Although, in contrast to Lorenz, Tinbergen, and McDougall, Lehrman indicates that instinct is a candidate for development through ontogeny, it is still apparent that instinct is in a passive relationship with the organism in both accounts. Thus, the two camps at least share the similarity of positing instinct as distinct from an active motivational capacity such as *reason*.

[289] Ibid., p.343
[290] Ibid., p.343
[291] Ibid., p.346

4.6 Returning to Schapiro

Looking back at Schapiro's account of inclination, she claims that inclination is motivated by a felt need. In addition she claims that inclination is a form of object-based agency. Returning to Lorenz, McDougall, and Tinbergen's account of instinct we see a similar notion being used by McDougall in his description of instinct. He asserts that instincts prompt one "to experience an emotional excitement of a particular quality upon perceiving […] an object, and to act in regard to it in a particular manner, or at least, to experience an impulse to such action."[292] McDougall's notion of instinct, just like Schapiro's notion of inclination, is object based. In addition, Schapiro's claim that inclination is motivated by a felt need to act in a particular way in response to the object is similar to McDougall's claim that instinct ignites an emotional excitement in the organism on perceiving the object, and that this emotional excitement leads to an act in response to the object, or to at least have an impulse to act. I argue that the emotional excitement McDougall speaks of can be thought of in the same manner as Schapiro's claim about the felt need to act. McDougall's view basically iterates the idea that instinct incites a felt need to act in response to an object. Schapiro's notion of inclination, rests on some of the same assumptions as McDougall's notion of instinct. Mainly, they are both object based, and they both excite the felt need to act in a particular manner. Further, Wispé claims that for McDougall, "instinct is as a way of perceiving, feeling, and doing."[293] Schapiro's notion of inclination is also a way of perceiving, feeling, and doing.

[292] McDougall (1908) p.30
[293] Wispé (1991) p.45

So, following McDougall's notion of instinct, Schapiro's notion of inclination, if different from McDougall's notion of instinct, seems to only be a difference in degree.

Turning to Lehrman's position, we see a notion of instinct that positions it in the O-camp; however, as noted previously, both the O-camp and the P-camp still see instinct as a passive motivational source. Schapiro sees inclination acting on us in the same passive manner as instinct does for the O-camp and P-camp. So the manner in which instinct motivates, even for the O-camp, shares an important similarity with the manner in which inclination motivates for Schapiro. In addition, there is nothing inherent in Schapiro's account of inclination that denies it the capacity to be OIO or PIO. Schapiro makes no remarks on whether or not the development of our inclinations is PIO or OIO. So it seems that Schapiro's account is not burdened with the problems associated in approaching the problem from the position of an either/or binary involving whether or not the development of inclinations is PIO or OIO. Whether the felt need to act in response to a particular object is one that has been passed on through phylogeny, as in the case of Tinbergen and Lorenz's account of instinct, or whether it is the result of ontogeny as in Lehrman's account, is of no matter in deciding if the item in question is an inclination for Schapiro. What matters for her, is whether the motivational source produces an imperative to act, comes to the organism passively, and produces the felt need to act in response to an object in a particular manner. All three criteria can be achieved whether instincts are PIO or OIO. Further, all three criteria seem to be in line with the way in which instinct manifests itself whether instinct is seen as OIO or PIO. Thus, when analyzing the similarities between her notion of inclination and the notions of instinct discussed previously, it seems of little consequence which camp she promotes.

Adding further support to the notion that inclination and instinct differ in degree, Schapiro remarks

> Just as the cat lacks the capacity to call its instincts into question, so the inclining part of me lacks the capacity to call its motivating principles into question. My contention, then, is that to "have an inclination" is to be aware of a part of me going for something in the way that a nonhuman animal goes for something. My inclination is the movement of my inner animal, a movement that would count as my action were I wholly a creature of instinct.[294]

Again she draws a connection between the instinctual acts of the non-human animal, and the inclining of the human animal. The fact that she sees us as lacking the capacity to call into question our inclinations in the same way a non-human animal lacks the capacity to call into question its instincts, shows a further commitment to the notion that these two capacities function in a similar way. They both come to the organism in a passive manner. Thus, there is a lack of control over both items. In this sense, both inclinations and instincts are one part of the organism's source of motivation; however, it is a part of the organism's source of motivation that the organism does not have the deliberative power to produce. In sum, both instincts and inclinations come to the organism whether the organism wants them to or not. In other words, they manifest themselves as an imperative. Thus, using Schapiro's words, each of these capacities produce the felt need to act in response to a situation in a particular way, regardless of the organism's reasoned notions of how they should act in response to such a situation. In this way, instinct and inclination appear to be part of the same capacity for Schapiro. Thus, I maintain that her account allows for the difference between the two to be seen as one of degree.

Furthermore, unlike the EAR who asserts that inclinations are the result of something that is non-agential, Schapiro does not force one to make a distinction between non-agential and agential capacity on the basis of the use of *reason* or inclination. She

[294] Schapiro (2009) p.248

does make a distinction in degree between the two agential capacities, but this does not amount to a distinction in the kind of capacity. Both inclination and reason are agential capacities. Thus, there is no reason why we should view the motivational use of inclination as a different kind of capacity then the motivational use of reason. Further, since her notion of inclination allows for it be seen as different in degree from instinct, it follows that there is some sort of gradation amongst instinct, inclination, and reason. So for Schapiro, it seems warranted to claim that the difference among instinct, inclination, and reason is one of degree not kind

It is unclear whether or not Schapiro places instinct outside the agential capacities, but it seems likely that she would. However, if she does, then it may be problematic for her notion of inclination. The fact that her notion of inclination shares such a close similarity with the notion of instinct offered by both the P-camp and the O-camp, makes it difficult to then claim that instinct is an entirely different kind of motivation than inclination. Thus, in order for her to claim that instinct is not part of the agential capacities, but nonetheless still only different in degree from inclination, she will need to make a further distinction. She sheds some light on this problem in her discussion of the difference between what she calls reflex and inclination, where she appears to assimilate reflex to instinct. She writes:

> When I squint in bright sunlight, I do not do so in response to an imperatival conception of anything. I do not see the sun as to-be-squinted-at. […] I do not have an inclination to squint and then act on that inclination. Rather, I squint by reflex. So, on my theory, my inclination to turn on radios is not assimilable to a reflex.[295]

So, in the case of inclining, there is first an inclination to X in response to some imperatival conception, then there is the separate act of doing X. In contrast, she sees the

[295] Ibid., p.252

reflex to X as missing the felt intermediacy of an impulse preceding the action of Xing. In other words, there are not two separate events involved in reflex, there is not an impulse to X, and then the actual act of doing X, but rather, the reflex to X comes to me without the impulse-to-X. Ultimately, she attributes reflex to a causal process that she does not attribute to inclination. To get at this claim, she asks us to consider the way non-human animals are motivated to act when not acting on reflex. In doing so, she discusses how the world might look to a cat.

> The cat sees this scurrying mouse as to-be-chased, this food in the dish as to-be-eaten, and that big angry dog as to-be-avoided. When she is moved in light of her teleological consciousness, she is not simply subject to a causal disposition. The object does not force her to act in the way that pollen in the air might force her to sneeze. Rather, she sees the object as calling upon her to initiate movement in response to it.[296]

Again we see her make a distinction based on the notion that there is some thing which the inclining act is in response to. She draws the distinction further by implying that reflexes are the result of a causal disposition, whereas inclinations are not. So acts from reflex are forced, and acts from inclinations are not. This points to a difference in the degree of freedom involved in the performance of each of these acts. In the case of reflexes, if the action connected with the reflex is performed, then it is a forced act. This entails the notion that the motivational force of an inclination, although imperatival in nature, does not exact the same kind of power over the organism that we see from a reflex. So, for Schapiro, there is a definitive difference between the power of a reflex to produce an action and the power of an inclination to produce an action. Perhaps, it is in this difference that Schapiro can make a case for why instinct does not reside in the agential capacities like inclination.

[296] Ibid., p.248

In making the claim that an "inclination is the movement of my inner animal, a movement that would count as my action were I wholly a creature of instinct,"[297] it appears that she sees some difference between inclinations and instincts. After all, if she did not distinguish between instincts and inclinations, then there would be no need for her to speak of the two separately as she does in the above quotation. It seems that she wants to draw a similar distinction between instinct and inclination as she does between reflex and inclination. In this quote, she pushes the notion that to have an inclination, is not enough to ensure that the action being inclined actually gets performed. Notice that the movement of one's inner animal in this example is not the same as the movement of the creature that is wholly instinctive. Her claim maintains that if I was wholly a creature of instinct, then my inclination would count as my action. This claim implies, that if I am not wholly a creature of instinct, then my inclination does not count as my action. So, if the organism in question is not wholly a creature of instinct, then to have an inclination, is not to perform an action. Looking back to her claims regarding reflex, when one has a reflex, the action itself is the reflex. Remember, that in contrast to her account of inclination, she does not draw a distinction between the reflex and the action motivated by the reflex. The action is itself the reflex. It seems that she may make the same move with inclination and instinct. If the inclination to perform an action, is counted as the action itself for animals that are wholly instinctive, and presumably by "wholly instinctive" she means that all the actions of such a creature are the result of instincts, then the wholly instinctive creature does not have the capacity to have an inclination to act, and then the further capacity to act or not act on the basis of this inclination. The wholly instinctive creature simply acts, and it is the action itself that she calls instinctive.

[297] Ibid., p.248

To clarify, the motivational power of an "inclination" to act for wholly instinctive creatures is much stronger than the motivational power for those creatures that are not wholly instinctive. Inclination for the former, manifests itself as an action, whereas for the latter, inclination manifests itself as the impulse to an action, not the action itself. Thus, for the wholly instinctive creature, the notion of inclination is not the same notion she uses in respect to those creatures that are not wholly instinctive. It seems that the difference, then, is not between instincts and inclinations necessarily, but rather between the type of organisms involved. If an animal is not wholly instinctive, then the capacity to possess inclinations is present, but if the animal is wholly instinctive, then the capacity to possess inclinations is not present. In this sense, she does appear to draw a distinction in kind between human and non-human animals. But, there is a problem with such a claim. Since the above example is of a cat, unless she posits inclinations to cats, then she draws the same distinction between instinct and reflex, that she does for inclination and reflex.

Her claim that, "the cat sees the object as calling upon her to initiate movement in response to it," shares a similarity to the notion of inclining actions for the human animal. In both cases, she sees reflex as having more force over the action of the organism in question. Assuming that she sees cats as wholly instinctive creatures, then her description of the motivation involved in the cats actions, shows that instinct does not have the same force as reflex. Again she says,

> […] the cat sees this scurrying mouse as to-be-chased, this food in the dish as to-be-eaten, and that big angry dog as to-be-avoided. When she is moved in light of her teleological consciousness, she is not simply subject to a causal disposition. The object does not force her to act in the way that pollen in the air might force her to sneeze.[298]

[298] Ibid., p.248

So, for the cat, these "as-to-be" impulses, appear to be the same type of impulse Schapiro describes as an inclination for the human animal. So, perhaps she allows for creatures, such as cats, to possess inclinations. However, she follows this quote by saying, "[S]till, when the cat is motivated in this way, she does not see the demand to chase the mouse as something requiring justification. Indeed, she does not have the capacity to call her instincts into question."[299] So, clearly in her description of the cat, she sees these "as-to-be" impulses, as instinctive. But, her description of these instinctive impulses mirrors her description of the inclining impulses she attributes to the human animal. Thus, again it appears that instinct and inclination function in nearly the same manner for Schapiro. The only apparent difference seems to be the type of animal involved in these "as-to-be" impulses. The "as-to-be" impulses of the human animal can either be the result of instinct or inclination, but for the wholly instinctive creature, these "as-to-be" impulses can only be the result of instinct. She does not discuss her method for deciding which creatures are wholly instinctive, and which are not. But, no matter the method for making this distinction, the process by which actions are motivated through both inclination and instinct seem nearly identical under her account.

It seems the only real difference to be drawn between the two is to claim that inclination is an agential capacity, and instinct is not. But, if the two capacities are identical with the exception that one is agential and one not, then the term agential seems to add very little if anything at all to inclination. Think about the difference between pitching a baseball, and throwing a ball off a hill at a person with a bat attempting to hit the ball. The only real difference here is that the pitcher is part of something, mainly a baseball league, that uses certain terms to describe the situation at hand. We only think

[299] Ibid., p.248

that the pitcher is doing something wholly distinct from the fellow who is on the hill throwing the ball to his pal in virtue of the context. One is “pitching” in an organized game of baseball, the other is “throwing a ball off a hill at a person with a bat attempting to hit the ball in the backyard.” But in essence, they are both doing the same thing. In this sense, the two acts are not different in kind, but are different in degree. It seems that unless Schapiro maintains that the difference between inclination and instinct is similar to the difference between reflex and inclination, then her notion of inclination and instinct are in the same relationship as the “pitcher” and the “thrower.” Either way, I think her account allows for this difference to be seen as one of degree.

A welcome feature of Schapiro’s notion of inclination is that it fits well within the account of autonomy offered in chapter three. NADST promotes the concept that the more possible alternatives available to the organism in question, the more autonomous that organism can be. Schapiro’s allowance for nonrational activity to coincide with agency opens the possibility for more alternatives. If we lock down agency with the notion that it must be connected with only the rational, then we close off possible alternatives. Schapiro’s account of inclination does not limit these alternatives in the same manner that the EAR or ER accounts do. If there is no concern that non-rational activity disturbs one’s agency, then there is no need to connect agency with rational activity. Thus, her account opens the door to more available alternative actions than either the ER or EAR.

5

Ethical Naturalism Reconsidered

In the previous chapter I examined the concept of inclination because it seemed helpful to distinguish the notion of inclination within a naturalistic framework that assumes DST from notions of inclination that posit it as distinct in kind from other motivational sources. Having exposed the problem that DST creates for this type of thinking, we are now prepared to reconsider ethical naturalism in light of a DST perspective. In Chapter One we took a cursory look at the general notion of ethical naturalism, and some of its critics. I now discuss two contemporary versions of naturalized ethics in order to expose how the concept of nature used in these versions differs from the notion of nature found in naturalistic frameworks that assume DST. I end with an examination of the effect this difference produces for a naturalized ethics.

5.1 Contemporary Ethical Naturalism

There are far too many contemporary versions of naturalized ethics to discuss them all in a project of this size, so I will limit my discussion to two of the leading movements in contemporary ethics that defend versions of naturalism. I examine what

some have termed Duke Naturalism and Pittsburgh Naturalism.[300] In discussing Duke Naturalism I focus on the claims of Owen Flanagan, and in discussing Pittsburgh Naturalism I focus on the claims of John McDowell. I offer an exposition of their respective positions, and then analyze these positions under a naturalistic framework that assumes DST in an attempt to expose the differences between their accounts and accounts that posit DST.

I want to make clear at the outset that I recognize Flanagan's and McDowell's views differ considerably; however, the goal of this section is not to explain the differences between the two, but rather the goal is to expose how each is different from the view expounded throughout this project—the view that emerges when we look at ethics as understood from the theoretical/empirical perspective of DST.

5.2 Duke Naturalism: Flanagan

Owen Flanagan offers a version of naturalism that attempts to reconcile what Wilfrid Sellars calls the manifest image and the scientific image. In glossing Sellars, Flanagan claims that the manifest image is "the composite set of all folk theories of ordinary people."[301] He claims that the manifest image has two components, the humanistic image and the world image.[302] The world image is composed of beliefs about the external world, and the humanistic image is composed of beliefs about human nature. He is primarily concerned with reconciling the humanistic part of the manifest image

[300] Flanagan, Sarkissian, Wong, and Ruse use this terminology in their respective chapters found in Sinnott-Armstrong, Walter. (2008). *Moral Psychology*. Cambridge, Massachusetts: The MIT Press.
[301] Flanagan, Owen. (2002). The Problem of the Soul: Two Visions of Mind and How to Reconcile Them. New York, NY: Basic Books. p.38
[302] Ibid., p.38

with the scientific image. According to Flanagan, "the humanistic image is the part of the manifest image that concerns the nature of persons."[303] He notes that "[T]he humanistic image says that we are spiritual beings endowed with free will—a capacity that no ordinary animal possesses and that permits us to circumvent ordinary laws of cause and effect."[304] In contrast, he asserts that "[T]he scientific image says that we are animals that evolved according to the principles of natural selection. Although we are extraordinary animals we possess no capacity that permits us to circumvent the laws of cause and effect."[305] To be clear, he does maintain that the humanistic image "can and often does display a sophistication due to absorption of theological, philosophical, and some scientific ideas."[306] The beliefs about human nature, then, are influenced by the acceptance or non-acceptance of ideas found in these fields. However, according to Flanagan, there is still a disconnect between the scientific image and the humanistic image that needs to be reconciled. He notes that many think the scientific image threatens to remove meaning from our lives. However, he claims that this need not be the case. He argues that we have good reason to buy into the scientific image, and that to do so does not necessarily result in the loss of meaning or morals.

Flanagan argues that we have good reasons to abandon supernatural notions of the self and libertarian free will. We are physical organisms that do not need to circumvent the ordinary laws of cause and effect in order to be held morally responsible.[307] He claims that "[T]he mind is the brain—mental life is realized in our brains—and it is

[303] Ibid., p.39
[304] Ibid., p.ix
[305] Ibid., p.ix
[306] Ibid., p.39
[307] Ibid., p.104,105

subject to natural laws."[308] The mental life is not an exception it does not escape causal laws. It is here that the worry about losing moral responsibility comes into play. If we are physical organisms top to bottom, and all physical organisms are constrained by causal law, then it seems we lose the ability to do otherwise, we lose our freedom. In order to support the claim that we have moral responsibility even though we do not possess libertarian free will, Flanagan defends what he calls neo-compatibilism. Neo-compatibilism, he claims, preserves the ideas that, even though I do not possess libertarian free will, "I am morally accountable for what I do and that in some plausible sense I can do other than I do."[309] In order to get clear on how the neo-compatibilist supports this claim it will be helpful to discuss what Flanagan calls "moral network theory."[310] Once this is completed, I return focus to the neo-compatibilist account.

Flanagan defends what he calls moral network theory. He claims that according to moral network theory, "acquiring knowledge […] is primarily a process of learning how: how to recognize a wide variety of complex situations and how to respond to them appropriately."[311] He adds, that "through exposure to situations […] moral perception, cognition, and response develop and are refined."[312] The primary idea is that people acquire the capacity to recognize how best to respond to particular situations through their experiences. Flanagan draws on an analogy to help clarify how moral network

[308] Ibid., p.145
[309] Ibid., p.145
[310] Moral network theory is the name Flanagan gives Paul Churchland's account of moral learning. See, Flanagan, Owen (1996) "The Moral Network," in *The Churchlands and Their Critics*, ed. R.McCauly. London: Basil Blackwell.
[311] Flanagan, Owen (1996) "Ethics Naturalized: Ethics as Human Ecology" in May, Friedman, and Clark. (1996) *Mind and Morals: Essays on Cognitive Science and Ethics*. Cambridge, Massachusetts: The MIT Press. p.25
[312] Ibid., p.25

theory explains "the way a human acquires moral sensitivities and sensibilities."[313] He maintains that it works in much the same way as sonar does in learning to distinguish rocks from mines. He writes:

> One way to teach the mine-rock device would be simply to state the rule specifying the necessary and sufficient characteristics of rocks and mines. The trouble is that these are not known (indeed it is part of the mine producers' job to make them as physically nondistinct as possible). Despite these efforts at disguise, there are bound to be subtle features that distinguish mines from rocks, so it would be good if the device could be trained in a situation where it starts by guessing mine or rock and then, by being clued into the accuracy of its guesses, develops a profile for recognizing rocks from mines. Indeed this can be done with connectionist networks. Eventually the mine-rock detector (which of course, never becomes perfect at its job) comes to be able to make judgments of kind very quickly, based on a small number of features, and it responds accordingly. […] According to moral-network theory, the fundamental process is the same in the case of moral learning.[314]

Flanagan explains that humans learn to recognize a variety of "prototypical kinds of social situations, and they learn to produce or avoid the behaviors prototypically required or prohibited in each."[315] He maintains that humans learn to recognize the ways that embedding society generally reacts in prototypical social/moral situations, and the ways that the embedding society generally expects people to react in these situations.[316] Just like the sonar gets better at distinguishing mines from rocks as it gains experience, humans get better at recognizing what society expects as we gain experience. In short, we learn from experience what we are expected to do or not do in certain situations.

Further, in displaying the complexity involved in moral learning, Flanagan asks us to consider what is involved in learning to tell the truth. He claims that we do not want to teach a child that he or she "has a categorical obligation to tell the truth."[317] There are clearly many instances that we prefer the child not tell the truth. For example, when a

[313] Ibid., p.25
[314] Ibid., p.25
[315] Ibid., p.28
[316] Ibid., p.28
[317] Ibid., p.28

stranger asks the child for his or her address.[318] He asks us to "consider just four kinds of situations and what they require in terms of discrimination and response:"

> 1. *Situations that call for straightforward truth telling:* "The cookies were for dessert. Did you eat them all, Ben?"
>
> *2. Situations that call for tact:* "So, Ben, you are enjoying school, aren't you?" (said by teacher to child in front of parents).
>
> *3. Situations that call for kind falsehoods/white lie:* "Kate, I got my hair cut a new way for the party tonight. How do you like it?" (one preteen to another). "Kate, don't you think I'm getting better at soccer?" (said by one teammate to another—and supposing Kate does not think Emily has improved one bit over the season).
>
> *4. Situations that call for lying/misinformation, depending on who is asking:* "Little boy, what is your address?" (asked by the stranger).[319]

These examples expose a fraction of the possible situations one may encounter that call for discriminating between telling the truth, omitting information, or outright lying. Learning when to tell the truth is a complex matter. In practice it seems impossible to have a specific rule for truth-telling for each and every possible situation; however, Flanagan argues that just like the mine-rock device gets better at distinguishing the difference between rocks and mines, humans get better at recognizing what situations call for what responses. Once we learn the expected response in prototypical situations, we are better prepared to make a discriminatory judgment in particular situations, especially those situations that share similarities with the prototypical situations we have encountered in past experiences. Similarity between a particular situation, and one of the prototypes we have experienced can offer information about how to react in a particular situation. He writes:

> How exactly a child or an adult responds to a novel moral situation 'will be a function of which of her many prototypes that situation activates, and this will be a matter of the relative similarity of the new situation to the various prototypes on which she was trained.'[320]

[318] Ibid., p.28
[319] Ibid., p.28
[320] Ibid., p.29

However, Flanagan is quick to note that some situations will be ambiguous, and thus there will be times when there is disagreement over what is occurring.[321] He argues that these instances "lead to reflection, discussion, and argument, which in turn lead to prototype adjustment."[322]

Explaining that how one reacts in a particular situation is the result of prototype identification, and explaining that when disagreement over prototype identification arises that prototypes are subject to adjustment, exposes a crucial point for the moral network theorist. Moral responsiveness need not entail the use of a set of "special-purpose rules or algorithms that are individually applied to all, and only, the problems for which they are designed specifically." [323] Nor, as Flanagan notes, does moral responsiveness need to "involve the deployment of a single general-purpose rule […], such as the principle of utility or the categorical imperative, designed to deal with each and every moral problem."[324] He then adds:

> Moral issues are heterogeneous in kind, and the moral community wisely trains us to possess a vast array of moral competencies suited—often in complex combinations and configurations—to multifarious domains, competencies that in fact and in theory resist unification under either a set of special-purpose rules or under a single general-purpose rule or principle.[325]

So, assuming moral network theory, there is no reason to think that moral responsiveness is or can be the product of a set of special-purpose rules or a general-purpose principle.

Flanagan then argues that moral network theory leaves no room for traditional notions of reason. Networks are in the business of pattern recognition, not reasoning, at

[321] Ibid., p.29
[322] Ibid., p.29
[323] Ibid., p.30
[324] Ibid., p.30
[325] Ibid., p.30

least in any traditional sense of the word. He claims that really all such systems can do is recognize and respond to patterns.[326] Further, he claims that

> The total network comprises more than the neural nets that contain the moral knowledge a particular individual possesses. Whatever neural net instantiates (or is disposed to express) some segment of moral knowledge, it does so only because it is 'trained' by a community. The community itself is a network providing constant feedback to the human agent.[327]

The total network is a system that includes a social aspect as well as neural nets. The neural nets are educated by feedback from this social aspect (the community). As Flanagan indicates:

> The neural network that underpins moral perception, thought, and action is created, maintained, and modified in relation to a particular natural and social environment. The moral network includes but is not exhausted by the dispositional states laid down in the neural nets of particular individuals.[328]

Both the social and what Flanagan calls the natural play major roles in the formation of the neural network. However, as previously noted, the social feedback itself can change if there is disagreement over what prototype is occurring and the disagreement leads to a prototype adjustment. This adjustment can lead to a change in the feedback that individuals receive from the embedding society, and thus, lead to modification in the neural network. This modification can then lead to changes in what actions an individual sees as appropriate in particular situations.

According to Flanagan, the main point is that "moral knowledge is the result of complex socialization processes."[329] He is quick to point out that it is not simply "mere" socialization. He notes, "'mere' socialization is socialization toward which no critical attitude is taken, for which there are no rational mechanisms that drive adjustment,

[326] Ibid., p.30
[327] Ibid., p.30
[328] Ibid., p.30
[329] Ibid., p.32

modification, and refinement."[330] In contrast, moral socialization has constraints that play a role in the assessment and adjustment of moral learning.[331] He writes:

> We are trying to learn 'how best to organize and administer [our] collective and individual affairs.' Social experience provides feedback about how we are doing, and reliable cognitive mechanisms come into play in evaluating and assessing this feedback. So there are aims, activities to achieve these aims, feedback about success in achieving the aims, and reliable cognitive mechanisms designed to assess the meaning of the feedback and to make modifications to the activities.[332]

Flanagan claims that cognitive mechanisms include individual reflection, collective reflection, and conversation; however, reflective practices "do not involve the deployment of some rarefied culture-free faculty of reason."[333] Rather, to be critically rational is a development of natural capacities, and is something we learn. It is, as Flanagan notes, "a perfectly natural capacity displayed by *Homo sapiens* socialized in certain ways."[334] In short, Flanagan argues that moral network theory offers an explanation of how moral learning works. He claims that moral learning can be explained by "complex prototype activation and […] rational practices that are socially acquired and communally circumscribed in structure and content."[335]

All this seems to suggest that Flanagan supports a form of relativism, and he does. He supports what he calls pluralistic relativism; however, with relativism comes worries about what exactly keeps actions in check. After all, if what is "good" is relative to what group/environment one is part, then what is to stop one from thinking, for example, that the killing of Jewish people by the Nazis ought be seen as good since the embedding community of Nazis think it is good? Flanagan argues that the worry of falling into an extreme relativism that allows for this type of thinking is remedied by one

[330] Ibid., p.32
[331] Ibid., p.32
[332] Ibid., p.32
[333] Ibid., p.32
[334] Ibid., p.33
[335] Ibid., p.33

simple answer: "The ends of creatures constrain what is good for them."[336] He explains that

> The relativist is attuned to relations that matter, to relations that have relevance to the matter at hand. Not all kinds of food, clothing, and shelter suit us animals, us members of the species *Homo sapiens.* Nor do all interpersonal and intrapersonal practices suit us.[337]

Accordingly, he argues that there are "substantial constraints on what might count as an adequate morality stemming from intrapersonal and interpersonal factors."[338] He maintains that we are social animals, but we have certain innate capacities and interests, and although many specifics of these capacities and interests are due to local socialization, the fact that we have them, "seems to be part […] of human nature."[339] He argues that the normative aspect of naturalistic ethics ought explain "[…] *why* some norms (including norms governing choosing norms), values, and virtues are good or better than others."[340] He writes:

> One common rationale for favoring a norm or set of norms is that it is suited to modify, suppress, transform, or amplify some characteristic or capacity belonging to our nature—either our animal nature or our nature as socially situated beings.[341]

The idea is that there are certain characteristics that human beings see as desirable, and if there are certain norms that aid in the promotion of these particular characteristics, then these norms will be favored over norms that either do not enhance these traits or promote undesirable traits. Flanagan argues that there is a core set of moral beliefs to be found across different cultures, and although certain particular beliefs may vary from culture to culture—like beliefs about when it is acceptable to kill something or the need for cooperation—these beliefs are similar in that "they all serve to regulate and promote

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[336] Flanagan, Sarkissian, and Wong (2008) "Naturalizing Ethics" in Sinnott-Armstrong, Walter. (2008). *Moral Psychology*. Cambridge, Massachusetts: The MIT Press. p.15
[337] Ibid., p.15
[338] Ibid., p.16
[339] Ibid., p.16
[340] Ibid., p.16
[341] Ibid., p.16

human social life."[342] He adds that even before the effects of culture have taken root, we (human beings) have different preferences when it comes to things like shelter, play, communication, and friendship than other animals. Morality, then, serves to inculcate those behaviors that are seen as desirable. He argues that "[M]orality cannot seek to instantiate behavior that no human beings have a propensity to seek,"[343] and this he maintains at least limits the capacity to fall into extreme relativism.

Further, Flanagan claims that this appears to "reduce morality to a system of *hypothetical imperatives* that hinge on our wanting to secure certain aims: *If* you want to secure social cooperation, *then* you ought to__.'"[344] The antecedents of these hypothetical imperatives consist of those aims that *Homo sapiens* have a tendency to seek. In addition, he maintains that what aims we want to secure are limited by our nature, and this constrains the sorts of things *Homo sapiens* strive to achieve. So, according to Flanagan, the hypothetical imperatives consist of those things that human beings tend to seek, but the types of things we tend to seek are constrained by our nature. He writes:

> […]while the aims of naturalistic ethics are *internal* to the motivational systems of the species *Homo sapiens*, they are *external* to any particular individual member of that species. This follows from the view that there are a limited number of goods that human beings seek given their nature and potentialities, and these goods (or aims) limit what can be placed as antecedents to the hypothetical conditionals.[345]

Ultimately Flanagan argues that the risk of falling into extreme relativism is remedied by the fact that those things which can be placed as antecedents to the hypothetical imperatives are limited by our nature and potentialities. In other words, it is not the case that anything goes.

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[342] Ibid., p.16
[343] Ibid., p.16
[344] Ibid., p.16
[345] Ibid., p.16

Now that we have an idea of how moral network theory works for Flanagan, let's turn back to the discussion of neo-compatibilism, and the claim that neo-compatibilism preserves the idea that even though we do not possess libertarian free will we are still morally accountable for what we do, and that in some plausible sense we can do other than we do.[346] First, I address the notion that we can do other than we do, then I examine the notion of responsibility under his account.

In discussing the neo-compatibilist position, Flanagan writes:

> What the neo-compatibilist means when she says that an individual could have done other than she in fact did is that *if* that person had seen the situation more clearly, had been sensitive to reasons she was not in fact sensitive to, she could have done otherwise.[347]

In order to get at Flanagan's point here, it helps to remember how moral learning works according to moral network theory. Remember, that according to Flanagan's description of moral network theory

> […] acquiring knowledge […] is primarily a process of learning how: how to recognize a wide variety of complex situations and how to respond to them appropriately. […] We are trying to learn "how best to organize and administer [our] collective and individual affairs." Social experience provides feedback about how we are doing, and reliable cognitive mechanisms come into play in evaluating and assessing this feedback.[348]

The assessment of this feedback can then lead to behavioral modification. If the individual in question fails to recognize or assess this feedback, then the feedback cannot play a role in directing action. If for example, Michelle had been sensitive to reasons she was not in fact sensitive to, or in other words, had she recognized and assessed a bit of feedback that she did not recognize or assess, then she could have done otherwise.

Now, Flanagan points out, this does not mean that she could have acted other than

[346] Flanagan (2002) p.145
[347] Ibid., p.150
[348] Flanagan (1996) p.25 & 34

she did, "[I]f she acted from deterministic rational causes, whatever they were, then these necessitated her act."[349] However, he claims the fact remains that

> […] agents can in fact normally do any number of things. When I consider a number of options—going to the movies, having a friend over for a visit, staying home and reading a book—I normally do so only when all the options are open to me, when all are possible and, to some extent, attractive. When I deliberate and choose any one of them, nothing would prevent me from carrying through on that choice. Insofar as the worry is about what I can do, the neo-compatibilist can make clear sense of the concept of live options. Furthermore, she can make sense of "could have done otherwise" in the following sense. Even after I choose, say, to go to the movies, it is still true that I could have stayed home and read had I chosen to do so.[350]

So, according to Flanagan, the neo-compatibilist can retain the notion that one "could have done otherwise" as long as live options are present. In other words, as long as there are live options present, it is within the realm of possibility that one could have chosen to perform any of these live options. So, even if the agent chose to do X, it does not change the fact that it is still true that the agent could have chosen to do Y, as long as Y was a live option. I now turn to the second part of this discussion, moral responsibility.

With respect to moral responsibility, Flanagan argues that by "responsible for an act," the neo-compatibilist means three things:

> 1. The act was routed through the conscious deliberation/habit module
> 2. The module is adjustable from the inside, by the agent, and from the outside, by way of feedback from the moral community.
> 3. By virtue of being routed through a modifiable cognitive module, the person can learn to respond differently next time. [351]

So, the agent is responsible in the sense that he or she has the capacities needed to respond differently in the future.[352] In other words, we are able to modify our actions in response to our own and the community's responses to our past actions.[353] Flanagan argues that "there are universal human emotions which are part of the original equipment

[349] Flanagan (2002) p.150
[350] Ibid., p.150
[351] Ibid., p.150
[352] Ibid., p.150
[353] Ibid., p.151

with which we enter the world, just like eyes, ears, noses, and hearts,"[354] and these "basic emotions express how we feel and convey information to others about how we would like them to behave."[355] This is part of the feedback received that allows for us to recognize which behaviors are in need of modification. Remember, this is how moral learning works for the moral network theorist. Just as the mine-rock detector learns how to modify how it distinguishes between rocks and mines as it gets feedback from past experiences, we learn to modify our actions from the feedback we get from past actions. By responsible, Flanagan means that since we are "able to modify our future actions in light of our own and the community's responses to our past actions,"[356] we have the capacities required to be able to respond differently in the future.[357] Thus, he claims that "we might say that a neo-compatibilist agent is responsable (with an "a", not responsible, with an "i")."[358] Flanagan admits that the neo-compatibilist depiction may dissolve the rationale found in accounts that attach responsibility in only those cases "where the agent could have done other than she in fact did given her exact state of mind at the time."[359] However, he does not see this as a real problem in regards to our actual practices. He claims that "[P]erhaps the situation is akin to Christmas without Santa Claus: Presents are nonetheless exchanged. The practices stay in place because the fiction that seemed to motivate them, or be required to make sense of them, turns out to have been inessential."[360] In other words, the neo-compatibilist removes the need for agents to possess libertarian free will in order to be held morally accountable for what they do. In

[354] Ibid., p.304
[355] Ibid., p.304
[356] Ibid., p.150,151
[357] Ibid., p.150
[358] Ibid., p.150
[359] Ibid., p.151
[360] Ibid., p.151

this sense, libertarian free will is shown to be inessential for continuing the practice of holding agents accountable. Since the scientific image is incompatible with notions of free will that require it to be unconstrained by law, it follows that in order to retain moral accountability and keep it compatible with the scientific image, moral accountability must be freed from this requirement. This is exactly what Flanagan argues neo-compatibilism accomplishes. Thus, according to Flanagan, the neo-compatibilist avoids the need to require capacities that are incompatible with the scientific image in order to retain moral accountability. So, for Flanagan, buying into the scientific image still leaves room for ethics. But what according to Flanagan does ethics entail?

He asserts that ethics is concerned with the question: "How shall I (we) live?"[361] He ultimately defends what he calls "ethics as human ecology." He claims that

> Ecology is a normative science: It studies how different life-forms flourish in their environments. Certain environments are objectively better for the flourishing of wetlands, beavers, orchids, and pine forests. Ethics is the normative science that studies the objective conditions that lead to flourishing of persons.[362]

According to Flanagan, broadly speaking, ethics can be conceived as a "systematic reflection or inquiry into the conditions required for living a good life."[363] Ecology, as he describes it, is the "science that studies how living systems relate to each other and to their environment,"[364] and what it takes for them to flourish. Ethics as human ecology is a systematic inquiry into what conditions best allow for human beings to flourish. To be clear, Flanagan does not ignore the question of whether humans have responsibilities to nature or non-human sentient beings. He claims "[…] if we understand our natures and that of the rest of natures bounty deeply enough, we will be moved to be morally

[361] Ibid., p.266
[362] Ibid., p.17
[363] Ibid., p.266
[364] Ibid., p.266

attentive to the well being of much more than our fellow humans. We will have moral impulses to care for nature as such."[365] In addition, he argues that this impulse is not strictly instrumental—it is not motivated by "enlightened self interest"—but rather from a "[…] recognition that the well-being of nature is an intrinsic good."[366] Flanagan does not argue that human well-being is all there is to ethical inquiry. In closing, he maintains that there is no reason to think that ethics as human ecology is any less objective than ecology in general. So, if ecology is accepted as offering objective information, then ethics as human ecology should be accepted as doing the same.

5.2.1 Analysis of Flanagan's Naturalism in Reference to DST & Autonomy-as-Available--Alternatives

In this section I do two things. First, I display some of the differences between Flanagan's account and accounts that assume DST. Second, I draw attention to some of the similarities and differences found between the account of autonomy-as-available-alternatives offered in Chapter Three, and Flanagan's argument that in some plausible sense we can do other than we do, and that we are still morally accountable for what we do, even though we do not possess libertarian free will.

The first thing to note is that Flanagan appears to place phylogeny in a privileged position in regards to ontogeny. This much is evidenced in the solution he offers in response to the worry that his account leaves open the door to extreme relativism. In offering a response to this worry, he relies on the notion that we have certain innate

[365] Ibid., p.267
[366] Ibid., p.267

capacities and interests, and these innate capacities and interests constrain the sorts of things we tend to seek. Accordingly, the types of actions that we desire to perform, although influenced by culture and environment in general, are restricted by our innate capacities and interests. Thus, social and cultural influences operate merely as interference or as background stuff, whereas these innate capacities assume the role of primary determinant in relation to what sorts of actions we tend to seek. He does not explain in detail what he means by innate; however, he seems to imply that the innate is phylogenetic in origin. Further, if he thinks that these innate capacities and interests have the ability to constrain the sorts of behaviors we are inclined to perform, even in the face of other developmental influences, and he sees these innate capacities and interests as being at least somewhat unchanged by ontogeny, then in this sense, he relies on a notion of phylogeny that sees it as overriding ontogeny in regards to the sorts of behaviors that we tend to seek.

Further, his explanation shares a similarity with those who offer preformationist accounts of biology. Remember that preformationists posit that "the information that programs development is preformed in the genes,"[367] and all other factors are simply supporting or interfering aspects of development. Under this account, traits or representations of traits are *transmitted* to offspring rather than being *reconstructed* in development. The gene is portrayed as the steady force, and other factors are seen as influencing the possible phenotypic outcomes of the gene. However, these possible phenotypic outcomes are limited by the genes. In other words, the information that programs development in the genes dictates the range of possible outcomes, and all causal factors outside the gene simply aid in directing development towards one of these

[367] Oyama, Griffiths, and Gray (2001) p.4

preprogrammed outcomes. Flanagan implies that we have innate capacities that act in just this way, they limit or constrain the sorts of actions we tend to seek. Thus, much like the preformationist places the genes in a privileged position, Flanagan places these innate capacities in a privileged position.

In contrast, proponents of DST reject both the notion that phylogeny overrides ontogeny, and the view that there are privileged developmental factors.[368] Thus, it follows that according to DST, there is no reason to think that the actions we tend to seek *must* be constrained by these innate interests and capacities. Further, there is no reason to think that factors outside what Flanagan calls innate, do not constrain the actions we seek. In short, there is no reason to place any of these factors in the role of primary determinant. Flanagan's response to the worry that his account leaves open the door to extreme relativism advances a thesis that implies both that phylogeny overrides ontogeny, and that there are privileged developmental factors. Consequently, in regards to this response Flanagan's account is incompatible with DST.

In addition, Flanagan seemingly draws a dichotomy between culture and biology. In explaining the normative component of naturalistic ethics Flanagan claims that "[O]ne common rationale for favoring a norm or set of norms is that it is suited to modify, suppress, transform, or amplify some characteristic or capacity belonging to our nature—either our animal nature or our nature as socially situated beings."[369] In this instances it is clear that Flanagan maintains a distinction between the characteristics that are the result of our biological nature, and the characteristics that are the result of us being culturally influenced organisms. In addition, later he claims that "[E]ven prior to the powerful

[368] See Chapter Two for a detailed account of this rejection.
[369] Flanagan, Sarkissian, and Wong (2008) p.16

(natural) effects of culture," we prefer different things than other animals.[370] Again, we see him alluding to the idea that there is a clean distinction to be made between culture and biology. This is something that proponents of DST reject, and thus, this is another reason why Flanagan's account fails to align with DST.

Further, Flanagan's comments point to a hard distinction between humans and the rest of the animal kingdom. By referring to "our animal nature" as the other half of our "total nature" he makes clear that organisms outside the species *Homo sapiens* lack this other half. While this may be true, it is also true that humans lack many of the characteristics of other organisms. It is unclear exactly why these other characteristics should be cashed out as simply the result of "animal nature," and the characteristics that result from us being socially situated beings should be seen as the result of something outside of animal nature. Taking a note from Darwin, we might just think it is part of our animal nature that we are social beings, and thus the characteristics that obtain because we are socially situated can be cashed out as part of our animal nature. As I argued earlier, assuming an evolutionary explanation for development, there is good evidence that our natures are not static, and thus there is only so much we can draw from these claims. However, it seems safe to say that DST does not draw a distinction between animal nature and "natures" that arise due to our being social situated beings. In contrast, if we take a DST approach, then we are forced to accept that the biology/culture divide is not warranted. Our biological natures include culture, learning, habituating, etc.

In addition, in contrast to DST, Flanagan maintains a divide between nature and nurture. In regards to human interests, Flanagan claims that the interests

[370] Ibid., p.16

> […]we seek to develop are a complex outcome of nature and nurture, as well as what our social environment favors. For many persons, realizing their complex talents and interests is not in the cards. Some are prevented by their environment from ever discovering what talents and interests they have.[371]

Here, Flanagan not only draws a distinction between nature and nurture, but he adds a third distinction, social environment. Furthermore, he uses this distinction to support the notion that people have certain talents and interests that sometimes do not surface due to interference from factors outside of nature.[372] One problem with this claim is that there is no possibility that "nature" exists in isolation from these other factors. It is reasonable to think that these capacities and interests might be different than they in fact are if there were changes in these other factors; however, even if these factors were different, they would still play a role in what capacities and interests do surface. In other words, there seems to be no way to avoid these other factors playing a role in the development of one's interests and talents.

Further, Flanagan's claim seems to imply that there are "true," "right," "normal," "best," etc. talents and interests to be had, and that these are the talents and interests that would surface if factors outside of "nature" played no role in their development. This is not to say that Flanagan thinks that due to environmental factors no one ever realizes these potentialities, just that when one does not realize one's potential it is due to environmental factors. Seeing as how there will always be environmental factors, Flanagan must think that there is some kind of norm for the environment, and when this norm is interfered with, then it has the possibility of interfering with the capacity for people to realize their "true" talents and interests. One problem with this position is that there seems no empirically sound manner that will allow for us to know when one has

[371] Flanagan (2002) p.285
[372] It seems evident, that by *nature* he must mean that thing which produces the innate capacities and interests he spoke of earlier.

realized the talents or interests they are supposed to realize *ceteris paribus*, and when they have not. It is highly likely that there are any number of talents and interests that can or will surface depending on all factors involved in the development of an individual. Thus, no matter what talents or interests do surface, we will always be left asking what other talents and interests we might have had if things had been different. Imagine, for example, that Bruce was born in 1108. Since he was born in 1108, his environment would be one that lacked as an available alternative the possibility to play electric guitar, thus we might think that his environment interfered with his talent to play electric guitar. Had his environment not interfered, then he would have been the first Jimi Hendrix. So, if he had been born at a different time, say 1936, in a different environment, he might have realized a talent for playing electric guitar. But notice, this just shows that there will always be some talent or interest that may not be realized. There seems little worth in claiming that environment interferes with the capacity to realize talents and interests; it is more appropriate to speak of the environment as providing opportunities to realize talents and interests. Depending on one's environment, the sorts of talents and interests available will be different. Whether the talents and interests that do arise are "true," "right," "best," or "normal," is something that cannot be determined.

There are parts of Flanagan's account that seem compatible with DST. At least the following part of ethics as ecology that he offers seems a nice fit with DST. Flanagan writes:

> Ecology teaches that the health of each ecosystem depends on that of every other ecosystem. It is an empirical mistake to think that a certain ecosystem is in good condition if neighboring ones are not. Even if an ecosystem is in good shape now, its health is unstable so long as the neighboring ecosystems are unhealthy.[373]

[373] Flanagan (2002) p.319

This is exactly the kind of thing we might expect to hear from a proponent of DST. We need to be concerned with the stability of the local system, its relations, and interactions, but not just within itself. It is important that we concern ourselves with the stability of neighboring local systems, and recognize that the relationship and interactions between local systems plays a role in the stability of each. In this instance, I think the proponent of DST will claim that Flanagan has got it right.

Now, I want to draw attention to some of the similarities and differences found between the account of autonomy-as-available-alternatives offered in Chapter Three, and Flanagan's argument that in some plausible sense we can do other than we do, and that we are still morally accountable for what we do, even though we do not possess libertarian free will.

Remember, according to Flanagan, the neo-compatibilist can retain the notion that one "could have done otherwise" as long as live options are present. This is similar to the notion of autonomy offered in Chapter Three. According to autonomy-as-available-alternatives, as long as there are available alternatives, (which remember means there is at least one available path, one available faculty present, and the faculty and path are in the right relationship to allow for action), then the organism in question has at least the minimum requirements for autonomy. The concept of live options that Flanagan offers claims that as long as there are live options present, it is within the realm of possibility that one could have chosen to perform any of these live options. So, even if the agent chose to do "X," it does not change the fact that it is still true that the agent could have chosen to do "Y," as long as "Y" was a live option. In this sense, live options share a crucial feature with the notion of available alternatives articulated in my notion of

autonomy-as-available-alternatives. Mainly, that as long as there are options to be had, and this means that the organism in question not only has an available path, but the needed capacity to actually take the available path, then it is reasonable to claim that no matter what path the organism actually takes, it is still the case that the organism in question had the capacity to do otherwise. For example, looking back to the example I offered in Chapter Three, If we place a tree inside a cage, then the tree has no available paths, and thus cannot do anything but stay inside the cage; however, if we cut a hole in the top of the cage, thus providing an available alternative path, then it is entirely possible that the tree grows out of this hole. In other words, it is possible to claim that the tree has taken a path, and that the tree might have done otherwise. In this instance even if the tree grows out of the hole, it is still true that it could have not grown out of the hole, and in this sense, we can retain the notion that it could have done otherwise. One might think the analogy breaks down due to the fact that Flanagan's explanation involves an agent that has the capacity to *choose*, and that trees (and many other organisms as well) lack this capacity. I argue that this is not problematic; however, in order to make this clear I need to say something about what I think the difference between making a choice, and simply acting *is*, under my account.

As discussed in Chapter Three, under Richard Campbell's process-based model trees may be seen as far-from equilibrium systems that are recursively self-maintenant. In addition, Campbell claims that "any recursively self-maintenant system is, in at least a minimal sense, goal-directed."[374] He adds

> Of course, to *describe* it as 'goal-directed' requires an observer. A bacterium does not *know*, in any sense other than a fanciful projected metaphor, that it is seeking some nourishing chemical.

[374] Campbell (2009) p.464

> Nevertheless, its characteristic way of switching between swimming and tumbling manifests a directedness, a 'towardness', that can reasonably be described as goal-directedness.[375]

Now, he makes clear that at this juncture "speaking of goal-directedness carries no implication of consciousness."[376] Campbell then draws a distinction between those recursively self-maintenant systems that are able to detect that some action they have performed has been in error, and those that do not.[377] Further, he claims that some recursively self-maintenant systems which can detect that some action they have performed has been in error are able to learn from the outcome of their actions, and some are not.[378] He states, "[H]igher organisms are recursively self-maintenant systems that cannot only detect error, but can also learn from their mistakes and adjust their behaviour through anticipating the likely outcomes of the potential interactions indicated to them by their environmental differentiations. They are 'flexible learners.'"[379] It is here that I think the difference between making a choice and merely acting can be demarcated.

In the case of the tree, it is goal-directed in the sense that it manifests a directedness; however, it does not have the capacity to error detect or learn from its mistakes in order to adjust its behavior in anticipation of the likely outcomes of its behavior. In contrast, the agent that Flanagan speaks of does have this capacity. So, by choice, what we might mean is the internal cause[380] that produces the effect of

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[375] Ibid., p.464
[376] Ibid., p.464
[377] Ibid., p.467
[378] Ibid., p.469
[379] Ibid., p.469
[380] I want to note, that by internal causal mechanism all I really mean is that it is something that is happening inside in the organism. As I have articulated earlier, the internal/external distinction breaks down with the acceptance of DST. So, I offer this distinction only to help explain what someone might really be talking about when they claim that some organisms make choices while other organisms—such as plants—do not make choices. I argue that in both cases it is really the same kind of thing that is happening. Now, there is some difference in degree, and this difference is the result of what faculties an organism has available. On this note, we might think that the term "choice" is only applicable to those organisms that possess some of the more complex faculties like reason and inclination.

performing an act for an organism that has as an available alternative the capacity to error detect and learn from its mistakes in order to adjust its behavior in anticipation of the likely outcomes of its behavior. For example, if organism X, being the type of organism that has the capacity to error detect and learn from its mistakes in order to adjust its behavior in anticipation of the likely outcomes of its behavior, has two available alternatives (or in Flanagan's terms has two live options) A and B, and the organism performs A rather than B, then whatever internal mechanism that caused the organism to perform A rather than B, can be called a choice. In other words, it is the internal causal mechanism that precedes the doing of A or B. Once A rather than B is done—where only one of these alternatives can be done at that time, place, etc.—then we can say that X chose to do A; however, all this means is that "making a choice" is one and the same as the internal causal mechanism that produced the effect of organism X doing A. In the case of the tree, it seems right to think that the tree does not possess the same degree of this *internal* causal mechanism as a human. So, unlike making a choice between A and B, the tree, although goal-directed, acts on A or B without anticipating the likely outcomes of its behavior. However, in both instances the act of doing A rather than B is the result of a causal mechanism. The only difference in these cases is that certain organisms have the capacity to error detect and learn from their mistakes in order to adjust their behavior in anticipation of the likely outcomes of their behavior, and some do not. If this is all that a choice *is*, then there seems no reason to think that autonomy-as-available-alternatives does not share the same capacity as Flanagan's live options to allow for us to retain the notion that one could have done otherwise. In other words, in regards to the capacity of an organism to-have-done-otherwise, it makes little difference if the cause of the action is

the result of a goal-directedness that *lacks* the capacity to error detect and learn from its mistakes, or the action is the result of a goal-directedness that *has* the capacity to error detect and learn from its mistakes. In both instances it is still a causal mechanism that produces the action, and thus, the doing of the action is still bound by law—it is not the result of some sort of freely authored decision-making that escapes natural law.

In regards to moral responsibility Flanagan claims that as long as "the act is routed through the conscious deliberation/habit module, the module is adjustable from the inside, by the agent, and from the outside, by way of feedback from the moral community, and by virtue of being routed through a modifiable cognitive module, the person can learn to respond differently next time," then the agent has the capacities needed to respond differently in the future, and thus, the agent can be held responsible.[381] In other words, an agent is responsible as long as she is able to modify her actions in response to her own and the community's responses to her past actions.[382] It seems that the deliberation/habit module and the way this module functions for Flanagan are similar to the notion of reason used for NADST and autonomy-as-available-alternatives. Reason is one of the faculties that can allow an organism to see an available path, and thus allow for the identification of an available alternative.[383] However, as articulated previously, autonomy-as-available-alternatives maintains that the faculty of reason is only possessed by those organisms with high degrees of autonomy, and these are the only organisms that can be held responsible for their actions. The main reason given for this, is that the faculty of reason allows for the organism to ask what *should* be done. So, it is not simply

[381] Flanagan (2002) p.151
[382] Ibid., p.151
[383] If the relationship between this faculty and the path is the right kind. In other words, if the relationship between the path and the faculty of reason is of the kind that allows for the path to be recognized.

a question of whether or not the organism "could have done otherwise," but a question of whether or not the organism can ask itself if it "should do otherwise." In accessing the feedback that the organism receives from itself and the community, the organism that possesses reason as an available faculty has the capacity to ask what it *should* do in response to this feedback, and thus modify its action on the *basis* of this feedback. According to NADST and autonomy-as-available-alternatives, in order for Flanagan's agent to have the capacity to modify her actions on the basis of her own and the community's responses to her past actions, reason is the necessary faculty required.

5.3 Pittsburgh Naturalism: McDowell

John McDowell offers a version of naturalism that purports to reconcile what he calls "bald naturalism," which sees the natural as those things that are law governed, with a Kantian notion of rationality, that sees the space of reasons as operating in its own sphere. The problem consists in the idea that if nature is necessarily linked to the realm of natural law, and the space of reasons is seen as operating freely in its own sphere, then the space of reasons may be seen as residing outside nature.[384] McDowell claims that "[W]e need to recapture the Aristotelian idea that a normal mature human being is a rational animal, but without losing the Kantian idea that rationality operates freely in its own sphere."[385] In doing this, McDowell seemingly makes room for the notion that being natural is not necessarily coextensive with being law governed.

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[384] Gubeljic, Mischa., Link, Simone., Müller, Patrick, and Osburg, Gunther. (1999) "Nature and Second Nature in McDowell's *Mind and World*." Found in John McDowell: *Reason and Nature* a Lecture and Colloquium in Münster. p.44

[385] McDowell, John (1994). *Mind and World*. Cambridge, Mass: Harvard University Press. p.85

In order to allow for the Kantian idea of rationality to be seen as natural, McDowell introduces a distinction between what he calls first and second nature. He describes first nature as law governed. This is the only type of nature that he ascribes to what he calls "mere animals." Mere animals are subject to a life that is constrained by biological imperatives.[386] They do not "weigh reasons and decide what to do,"[387] they are compelled to act on their natural impulses, their "sentience is in the service of a mode of life that is structured exclusively by immediate biological imperatives."[388] In essence, first nature for McDowell is what all of nature is for the bald naturalist. Now, he does not claim that only mere animals possess a first nature. Human beings too have a first nature; however, in contrast to mere animals, human beings also have what he calls a second nature.

Second nature is something that is acquired in addition to first nature, and requires as a potentiality the possession of rationality. McDowell argues that human beings are born mere animals,[389] or in other words, we are born into our first nature.[390] We are then, as McDowell puts it, "transformed into thinkers and intentional agents in the course of coming to maturity."[391] So, we are not born with this faculty already intact, but are born with the potential to acquire this faculty. It should be noted that this is in contrast to mere animals who lack this potentiality altogether. Second nature is exclusively found in the domain of human beings; it is described as a natural ability grounded in human nature, and thus not something that comes naturally to other animals. It is this *potential* for a

[386] Ibid., p.115
[387] Ibid., p.115
[388] Ibid., p.115
[389] Ibid., p.125
[390] This is how Paul Pietroski expresses it in, Pietroski, Paul (1994) "Experiencing the Facts, Notice of: *Mind and World*, by John McDowell" Cambridge, MA: Harvard University Press. p.25
[391] McDowell (1994) p.125

second nature that McDowell sees as distinguishing the newborn human from mere animals.[392] So, if infants are born as mere animals, and all that mere animals possess is a first nature, then this potential must be the result of our first nature. It is important to remember that McDowell's account of rationality mirrors the Kantian notion of rationality that sees it as operating freely in its own spehere, so in order for McDowell to make the case that second nature is "natural," he needs a way to show that there is a natural connection between first nature and second nature. The idea that the potential for second nature is found in our first nature, is one way that McDowell does this. If the potential for a second nature relies on an organism's first nature, then the potential for a second nature is not free from the realm of law, and thus this potential for a second nature fits in the domain of "bald naturalism."

Further, he sees first nature as shaping and placing limits on our second nature. He claims that "[…] first nature matters […] because the innate endowment of human beings must put limits on the shapings of second nature that are possible for them."[393] In essence, McDowell sees second nature as the actualization of first nature potentialities.[394] He claims that "[S]econd nature could not float free of potentialities that belong to a normal human organism."[395] So, if an organism's potential is shaped and limited by its first nature, and second nature is a potential for organisms like us, then in this sense the potential for second nature is bound by first nature. So, human beings are distinguished from mere animals in the fact that our lives and experiences can be shaped by this

[392] Ibid., p.123
[393] McDowell, John (1998). *Mind, Value, and Reality*. Cambridge, Mass: Harvard University Press. p.190
[394] McDowell (1994) p.84; Gubeljic, Link, Müller, and Osburg (1999) pp.42,45
[395] McDowell (1994) p.84

rationality.[396] This is something that mere animals cannot do; however, the having of this potential is the result of the law governed first nature that we do share with mere animals. McDowell believes that this "gives human reason enough of a foothold in the realm of law to satisfy any proper respect for modern natural science."[397]

In addition, McDowell claims that first nature's shaping of second nature does not just involve "a molding of prior motivational tendencies, but also involves the imparting of practical reason; and reason is inherently open to reflective questions about the rational credentials of the way it sees things."[398] He notes that one consequence of this imparting of practical reason is that it opens the door to reflective questioning that may call into question the rational cogency of the outlook from which this reflection takes place. If this outlook is the result of second nature, then it leaves the possibility that one may come to think, rightly or wrongly, that the outlook associated with second nature fails to be rationally cogent. In response to this worry he argues that:

> if something is to be an intelligible candidate for being the way second nature should be, it must at least be intelligible that the associated outlook could seem to survive this reflective scrutiny. And there are limits on the courses reflection can intelligibly take, which come out in limits on what can be intelligible in the way of statements that purport to express part of such reflection.[399]

He believes we can easily expose the limitations of this reflection by looking at the capacity to convey one's thoughts to others. If we are unable to intelligibly convey our thoughts, then he thinks that it brings into doubt "whether what one has engaged in was really thought at all."[400] So, he claims that there are limits to what reflection can intelligibly do, and he argues that "one source of these limits on intelligibility is first

[396] Gubeljic, Link, Müller, and Osburg (1999) p.45
[397] McDowell (1994) p.84
[398] McDowell (1998) p.190
[399] Ibid., p.190
[400] Ibid., p.190

nature."[401] In short, first nature shapes the space in which reflection can take place, and thus places limits on the courses reflection can intelligibly take.

Further, McDowell claims that first nature not only aids in shaping and limiting the space in which reflection takes place, but "first natural facts can also be part of what reflection takes into account."[402] He claims that this is where "we can register the relevance of what human beings need in order to do well, in a sense of 'doing well' that is not just Aristotle's 'acting in accordance with virtues.' "[403] So, in reflecting on what action to take, first natural facts play a role in what action second nature recommends. He claims that the "basic picture is that putative reasons need to be grounded in facts of disenchanted nature. And those facts can include such things as what animals of a particular species need in order to do well in the sort of life they naturally live."[404] So, in acquiring a second nature first natural facts are some of the things that second nature must take into account. Second nature is "a formed state of practical reason."[405] Thus, second nature does not free an organism from taking the demand of first natural facts into account, but, as McDowell notes, it does allow the organism "to step back from any motivational impulse one finds oneself subject to, and question its rational credentials." [406] Second nature "[…] effects a kind of distancing of the agent from the practical tendencies that are part of what we might call his first nature."[407] McDowell writes:

> Reason does not just open our eyes to our nature, as members of the animal species we belong to; it also enables and even obliges us to step back from it, in a way that puts its bearing on our practical problems into question.[408]

[401] Ibid., p.190
[402] Ibid., p.190
[403] Ibid., p.190
[404] Ibid., p.176
[405] Ibid., p.192
[406] Ibid., p.188
[407] Ibid., p.188,196
[408] Ibid., p.172

In this sense, second nature takes on an authoritative role in regards to these practical tendencies. It calls into question whether or not these tendencies, which are part of our first nature, *should* be acted on. So, even though second nature takes first natural facts into consideration, there are many times when the practical reason of the agent in question will not necessarily accept first natural facts as good reasons for action. In fact, McDowell notes that "what the members of a species need is not guaranteed to appeal to practical reason."[409] Thus, even though first natural facts are part of what second nature takes into account when recommending action, second nature is not bound to these facts.

At least according to McDowell's explanation, it follows that once second nature becomes actualized, it then operates freely in its own sphere. Thus, first nature is law governed, the potentiality for second nature is law governed, but the exercising of second nature is not governed by natural law. The most difficult problem for McDowell to overcome is how it is that second nature operates freely, but is still natural.

To this end, he asserts that it is "not naturalistic in the sense of purporting to found intellectual credentials of practical reason on facts of the sort that the natural sciences discover."[410] So, second nature is not natural in the sense that it can be explained by the law governed facts purported to be discovered by the natural sciences, but it is nonetheless natural. He argues that the natural is not confined to only those things discovered through the methodology of the natural sciences. He writes:

> […] second nature acts in a world in which it finds more than what is open to view from the dehumanized stance that the natural sciences, rightly for their purposes, adopt. And there is nothing against bringing this richer reality under the rubric of nature too. The natural sciences do not have exclusive rights in that notion; and the added richness comes into view, not through the operations of some mysteriously extra-natural power, but because human beings come to possess

[409] Ibid., p.191
[410] Ibid.,. p.192

> a second nature. […]Nature, on this richer conception, is to some extent autonomous with respect to nature on the natural-scientific conception"[411]

McDowell expands his notion of the natural to include more than what the natural sciences offer. In this sense, second nature is seen as independent from the notion of nature found in the natural sciences, but nonetheless natural. He argues that we obtain our second nature through a proper or improper upbringing. He claims that it is an "element in the normal coming to maturity of the kind of animals we are."[412] McDowell explains that "[…] the dictates of reason are there anyway, whether or not one's eyes are opened to them; that is what happens in a proper upbringing."[413] Further, he asserts that "any actual second nature is a cultural product."[414] So, he sees second nature as the result of habituation and socialization, and habituation and socialization as part of the normal contributing factors in the lives of the human animal. He adds, "Human life, our natural way of being, is already shaped by meaning. We need not connect this natural history to nature as the realm of law any more tightly than by simply affirming our right to the notion of second nature."[415] He adds

> We are looking for a conception of our nature that includes a capacity to resonate to the structure of the space of reasons. Since we are setting our faces against bald naturalism, we have to expand nature beyond what is countenanced in a naturalism of the realm of law. But the expansion is limited by the first nature, so to speak, of human animals, and by plain facts about what happens to human animals in their upbringing.[416]

The main idea is that in order to retain room for "the space of reasons" in a naturalistic conception, we need to expand our conception of the natural to include more than the realm of law; however, in order to avoid positing an account that relies on a notion of the natural that is independent of the realm of law, he argues that first nature limits this

[411] Ibid., p.192,193
[412] McDowell (1994) p.88
[413] Ibid., p.91
[414] McDowell (1998) p.194
[415] McDowell (1994) p.95
[416] Ibid., p.109,110

expansion, and thus second nature is not completely removed from the realm of law. In other words, second nature still has a foothold in the realm of law.[417]

At this point I want to turn to McDowell's discussion on the connection between doing well and virtue. He states:

> It is important that when the connections between virtue and doing well—in a sense that is not Aristotle's 'acting in accordance with virtues,' a sense that is not itself shaped by ethical concerns—do figure in a reflective reassurance about an ethical outlook, they operate at one remove from the subject's rational will. What directly influences the will is the valuations of actions that have come to be second nature.[418]

As noted previously, the acquiring of our second nature is the result of what McDowell calls a proper upbringing. This upbringing helps to ingrain the value of certain modes of behavior into the subject—modes of behavior that are seen by the community as acceptable, mandatory, encouraged, as well as modes of behavior that are seen as unacceptable.[419] It is in this ingraining that the modes of behavior that are seen as virtuous are learned, habituated, and imitated. Anne-Marie Christensen's explains that "virtue as a form of second nature is developed by imitation, training, and a general initiation into a culture."[420] McDowell argues that this helps to cope "with the fact that virtue sometimes requires self-sacrifice."[421] To illustrate his point, he examines the connection of courage with doing well.

He claims that "[T]he connection of courage and doing well, in the relevant sense, is that human beings need courage if they are to stick to their worthwhile projects, in the face of the motivational obstacle posed by danger."[422] He claims that it is something like

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[417] Ibid., p.84
[418] McDowell (1998) p.191
[419] To be sure, McDowell sees these modes of behavior as limited by our first nature, and thus not simply a cultural byproduct.
[420] Christensen, Anne-Marie (2009). "Getting it Right in Ethical Experience: John McDowell Virtue and Ethics." *Springer Science + Business Media B.V.*, in the November 12, 2009 edition, p.498.
[421] McDowell (1998) p.191
[422] Ibid., p.191

this that lies in the reflective background of a second nature that values courage; however, he wants to make clear that this reflection does not directly engage with the will of a courageous person, as stated earlier, the reflective reassurance about an ethical outlook operates at one remove from the subject's rational will. The problem with seeing this reflection as engaging directly with the will of the courageous person, is that if we do, then, as McDowell states, we "risk losing our hold on how it can be rational to face danger, even in the interest of something one values deeply, if one's death is a possible upshot"[423] Now, he notes that all this may be undermined by the thought that in acting courageously there is a probability that it may lead to death, and thus there will be no projects to stick to. In response, he claims that being courageous "is primarily a matter of being a certain kind of person."[424]

> One cannot be that kind of person but stand ready to rethink the rational credentials of the motivations characteristic of being that kind of person, on occasions when acting on those motivations is in some way unattractive; part of what it is to be that kind of person is not to regard those credentials as open to question on particular occasions.[425]

He argues that this response is right, but only insofar as the "general human need for courage stands at one remove from the rational will of a person engaged in courageous behavior."[426] Otherwise, he maintains that this response appears to be a "recommendation to abandon reason,"[427] which he claims, "surely does examine the rational credentials of actions one by one—in favor of blind adherence to a policy."[428] He argues that as long as this need for courage is at one remove from the rational will, then the damage that acts of virtue produce is unproblematic. He adds:

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[423] Ibid., p.191
[424] Ibid., p.192
[425] Ibid., p.192
[426] Ibid., p.192
[427] Ibid., p.192
[428] Ibid., p.192

> […] the point of a particular courageous action lies not in the fact that human beings in general need courage, focused, as it were, on the circumstances at hand, but in the fact that this action counts as worth-while in its own right, by the lights of a conceptual scheme that is second nature to a courageous person.[429]

In short, the second nature of a courageous person displays courage to this person as something that one ought to pursue for its own sake. As McDowell notes, "second nature will seem to its possessor to open his eyes to reasons for acting."[430] These reasons—operating at a remove from the rational will—then become the motivation for performing one act rather than another. Thus in circumstances that require courageous behavior, the second nature of the courageous person—acting at one remove from the rational will—is not clouded by the possibility that the courageous act at hand may lead to one's demise. If the rational will was engaged directly by this notion, then the courageous person would have to either accept that they must abandon reason in this instance, or abandon the courageous act itself. In regards to the virtuous person, McDowell ultimately claims that "[…] we can say that reason reveals the dictates of virtue to them as genuine requirements on a rational will, and the reason that effects this revelation is their acquired second nature."[431] If one is a virtuous person, then their second nature will effect the need to act virtuously, and the performance of virtuous actions will then seem to this person as a requirement of a rational will.

5.3.1 Analysis of McDowell's Naturalism in Reference to DST

The goal of this section is to expose some of the incompatibilities between McDowell's account, and accounts that assume DST. The first thing to note is McDowell

[429] Ibid., p.192
[430] Ibid., p.189
[431] Ibid., p.196

appears to draw a dichotomy between biology and culture. Remember, in contrast to first nature, he claims that "any actual second nature is a cultural product."[432] In drawing a distinction between first and second nature, he seemingly must draw a distinction between biology and culture. On the one hand, we have first nature which is bound by law, and something that the human animal shares with the rest of nature. On the other hand we have second nature which is not completely law bound, and something that the human animal does not share with the rest of nature. In his terms, first nature is the "innate endowment of human beings […] that put limits on the shaping's of second nature that are possible for them."[433] Following these few claims, it is safe to say that McDowell sees first nature as innate, and second nature as acquired through culture. In this sense, McDowell draws a distinction between inherited and acquired components of an organism. In contrast, according to Oyama and proponents of DST, since all features of a phenotype must develop, "they are all acquired in ontogeny."[434] Due to the fact that there are certain conditions required for the development of any phenotype, and these conditions are part of the formation of the organism from the beginning, "they are all 'environmental.'"[435] Thus, according to Oyama, "If one seriously accepts the origin of phenotypes in causal interaction, […] no distinction between inherited and acquired components of the organism is defensible."[436] In explaining the difference between first and second nature, McDowell seems to draw a distinction between acquired and inherited components, and this is something that proponents of DST must reject.

[432] Ibid., p.194
[433] Ibid., p.190
[434] Oyama (2000) p.86
[435] Ibid., p.86
[436] Ibid., p.86

Further, McDowell claims that "second nature is the actualization of first nature potentialities."[437] This characterization of how first and second nature interact, shares a similarity with the genecentric view rejected by proponents of DST. He adds, "Of course first nature matters. It matters, for one thing, because the innate endowment of human beings must put limits on the shaping's of second nature that are possible for them."[438] It is clear that he sees first nature as placing limits on second nature. In much the same light as those that accept the genecentric view of development, where genes are seen as placing limitations on the extent of the developmental influence of other factors, first nature places limitations on the amount of influence that second nature contributes. It seems that McDowell views second nature as a kind of background interference, and first nature as the leading mechanism in the development of an organism's tendencies. Second nature does a play a role, but whatever role it does play is constrained by the dominating effects of first nature. Thus, in the eyes of those that accept DST, McDowell is guilty of endorsing a primary determinant. First nature is the primary and limiting determinant of the tendencies that organisms possess, and second nature operates as a secondary determinant for how these innate tendencies ultimately manifest.

According to DST, nature is the result of nurture, and thus, to use McDowell's terminology, second nature is best seen as part of the human animal's first nature. Now, McDowell does attempt to include "nurture" in his concept of second nature, but his insistence on seeing first nature as a limiting force in the actualization of second nature seems to place McDowell in the same position as those that argue for genes as the limiting resource involved in phenotypic outcomes. So, McDowell may be read as

[437] Gubeljic, Link, Müller, and Osburg (1999) pp.42,45
[438] McDowell (1998) p.190

promoting first nature to a privileged position in the development of an organism's character.

Moreover, if second nature is the actualization of first nature potentialities, then second nature is at least partially law bound, and although McDowell has made it clear that this is exactly what he needs in order to maintain that second nature has a foothold in the realm of law—which he gets from the fact that second nature is limited by first nature potentialities—he still wants to maintain that second nature is not constrained completely by the realm of law. He argues that this allows room for the space of reasons to be seen as spontaneous. In response, it is difficult to see how McDowell can make room for a Kantian notion of rationality, and maintain that it is still natural, simply because second nature is *partially* law bound. Apparently he thinks that the foothold in the realm of law that second nature *has*, as a consequence of being limited by first nature, is enough to get this; however, it seems that rather than "naturalizing" second nature, which by all standards discussed in Chapter One involves bringing it under the realm of law, he instead removes this component as a necessary part of what it means to be natural.

In regards to this move, Gubeljic, Link, Müller, and Osburg note, "[S]ince the naturalness of all other things derives from their conformity to laws, we might think of human beings as being discontinuous with the rest of nature."[439] McDowell seemingly draws a distinction of kind between humans and other animals, which seems to indicate that he does see the human animal as distinct from the remainder of nature.[440] McDowell argues that mere animals lack the freedom we do. He writes, "[I]n mere animals, sentience is in the service of a mode of life that is structured exclusively by immediate

[439] Gubeljic, Link, Müller, and Osburg (1999) p.45 in regards to McDowell (1994) p.118
[440] McDowell (1994) p.70, Gubeljic, Link, Müller, and Osburg (1999) p.45

biological imperatives."[441] However, as evidenced by his notion of second nature in the human animal, and his discussion of the virtuous person, he does not view the human animal as suffering from the same kind of constraint. Now, the problem does not arise from the notion that, in contrast to the human animal, "mere animals" lack the capacity to circumvent what he calls "immediate biological imperatives," the problem arises in the notion that second nature is not law bound. If, as Gubeljic, Link, Müller, and Osburg claim, "the naturalness of all other things derives from their conformity to laws," and McDowell insists on explaining second nature as a nature that does not necessarily conform to these laws, then the human animal must be discontinuous with the rest of nature. However, if this is the case, then it seems McDowell has lost the foothold within the realm of law that he needs in order to maintain that second nature is continuous with the rest of nature. This seems a problem for McDowell if he wishes to maintain that his view of the human animal is naturalistic. I see no reasonable manner that will allow for him to maintain this divide between first and second nature, and allow room for the Kantian notion of rationality within second nature without invoking something that appears in all light to be unnatural.

In addition, McDowell asserts that "[…] practical reason distances an agent from his natural motivational impulses."[442] Taking the DST perspective, there is no reason not to assume that if one of the faculties an organism possesses is practical reason, then practical reason is just part of one's natural motivational impulses. Remember, for Oyama, an organism's nature simply amounts to whatever attributes identify an organism at a particular time, and these attributes are the result of developmental processes. If

[441] Ibid., p.115
[442] McDowell (1998) p.196

McDowell is to maintain that second nature is natural, then it follows that second nature too is part of one's natural motivational impulses. His insistence on separating second nature from first nature is something that DST has no reason to divide as long as second nature is simply seen as ontogenetic in origin, which McDowell implies is the case. Now, McDowell's insistence that the space of reasons operates at a distance from the realm of law is something that DST cannot accommodate, but all this means is that McDowell's second nature loses its spookiness when brought under the heading of naturalism. In short, rather than positing a quality to second nature that detaches it from the realm of law, the move to make is to offer a complex law guided explanation for how reason functions. This may not be something that we are capable of doing currently, but it is what is required in order to justify second nature as natural.

I want to note that both Flanagan and McDowell's versions of naturalism assume at least some form of an essentialist notion of nature or at least maintain a dichotomy that is not warranted if DST is the guiding principle. This is something that I want to separate from, and I think the injection of DST into the conversation aids in doing just this. Thus, in the following section I discuss the reconceptualization of nature found in the DST literature, and evaluate the result that this reconceptualization has on a naturalized ethics.

5.4 The Consequences of Reconceptualizing the Natural for a Naturalized Ethics

In respect to the project of naturalizing ethics, Oyama's notion of nature allows for the inclusion of resources that may be seen by some as non-natural. She claims that "[H]uman biology is […] not a matter of individuals with fixed internal natures, but of

changing natures that are a function of reciprocal relations with environments that always have a social aspect."[443] This view allows for a more complex and dynamic notion of what it means to be natural, and thus allows for more factors to be taken into consideration when attempting to naturalize ethics. What I propose is a developmental moral system.

Discussing DST, William Rottschaefer writes:

> […] a DST approach would argue that equal emphasis on the non-genetic factors involved in the production of moral agency is both required theoretically and supported empirically. In particular, the current attempts to connect genes and human nature and human nature with morality are unfounded, though not because morality is a purely cultural phenomenon rather than a biological one. They are unfounded because moral agency, […] is better understood as a biological/cultural unit, a developmental system.[444]

Assuming DST, it must be the case that moral agency is at least the result of a biological/cultural unit. Since DST sees culture, environment, and other non-genetic factors as comprising biology, I think it right to think that moral agency according to DST is best articulated as a developmental moral system. Proponents of DST[445] claim that there is empirical evidence that displays the capacity for stable non-genetic factors to determine phenotypes. Recall these examples from Chapter Two:

> Different developmental influences can be stable within any lineage. These influences "may follow a lineage equally closely through evolution, even though one is genetic and the other 'environmental'"[446] It may be the case that the extracellular resources are as stable as the intracellular resources in some instances. Resources such as the types of food available may in some cases maintain stability through a lineage, and thus must also be seen as having the capacity to determine phenotypes.[447]

Oyama cites phenocopying as a further example.

> Phenocopying […] occurs when genetic mutations, as well as changes in the outside world, can bring about similar alterations in the organism. There are bithorax mutants in *Drosophila*, but

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[443] Oyama (2000) p.171
[444] Rottschaefer, William. (2002) "The Acquisition of Conscience and Developmental Systems Theory." Urban & Fischer Verlag. : Theory Biosci. (121: 175-203.) http://www.urbanfischer.de/journals/theorybiosc. p.200
[445] In particular, Oyama, Griffiths, and Gray
[446] Oyama, Griffiths, and Gray (2001) p.3
[447] Found in Chapter Two section 2.1.1

> the bithorax phenotype can also be induced by ether. Genes and ether shocks turn out to be developmentally equivalent in this respect.[448]

Instances such as these offer empirical evidence in support of the notion that stable non-genetic factors do indeed have the capacity to determine phenotypes. Compare this to the claims made in Chapter Three in regards to autonomy-as-available-alternatives. In that discussion I argued that autonomy, or the capacity to do otherwise, is found in the relationship between available faculties and environmentally available paths. Non-genetic factors are clearly part of the resources that play a role in forming these faculties, and creating these paths. Again, as I have argued previously, special attention should be placed on the relationship between faculties and paths. Having a path and a faculty does little good if they are not in the type of relationship needed in order for the faculty to access the path, and thus make available to the organism in question alternative actions. The point is that in order to reach a level of autonomy that justifies attributing moral responsibility to an organism, the relationship between genetic and non-genetic factors must be such that it allows for the recognition of the right kind of available alternatives. It is not simply a case of an organism having available to them the faculty of *reason* due to its genes, or having a door in the room as a result of the local environment, it is a case of having just the right combination of these things in order to allow for the recognition of the right kind of available alternatives. In short, it is the result of the interaction between genetic and non-genetic factors that enables an organism to not only do otherwise, but also to reach a level of autonomy that justifies attributing responsibility to that organism. As mentioned in Chapter Three, by the right kind of available alternatives I mean those alternatives that allow for one to ask: "what *should* I do." The *answer* to this question

[448] Oyama, Griffiths, and Gray (2001) p.3

seems to involve many factors outside of those that are genetic;[449] however, I want to urge that the *question* itself, the motivation to find this answer, also includes many factors outside of those that are genetic.

I maintain that autonomy-as-available-alternatives maps onto the concept of nature offered by DST, and in doing so offers a reasonable empirical argument for the admittance of autonomy as a non-absolute, and thus as something that admits to differences in degrees. Further, I claim that it offers a reasonable explanation for when it is justifiable to attribute moral responsibility to certain organisms. The answer in short is found in the notion of viewing moral agency as the result of a developmental moral system that evolves not simply culturally, but biologically.

Before closing, I think its worthwhile to take a brief look back at a remark Flanagan makes. He comments on how certain traditions identify problems with living our lives solely according to our biological natures.[450] These traditions attempt to promote a morality that stems from our capacity to circumvent our biological natures in favor of some other component that is deemed a more appropriate method of motivation when deciding what to do or not do when a moral or immoral act is what is at stake. In short, these traditions think we should not simply follow the recommendations of our biological natures. DST's allowance of social, cultural, and environmental resources to be included in our biological natures aids in removing the stigma that these traditions place on following our biological natures. If our biological natures include these other factors, then the use of them to avoid acting on our biological natures is no longer applicable, they are just part of our biological natures. This conception of biology, then, sees our

[449] I recognize that there are those (Dawkins for one) that may disagree with this, but I think it safe to say that the majority believe this to be the case.
[450] Flanagan (2002) p.317

biological nature as supplying just what we need in order to motivate actions that we deem appropriate. In Flanagan's terms, the feedback we get from our community which informs us as to what modifications we ought make to our actions, can be encompassed within what we call our biological nature. Cultural and social influences are no longer seen as in competition with our biological nature—they are simply part of our biological nature.

Conclusion

Throughout this project I have been committed to the idea that ethical normativity is compatible with scientific explanation. I have been at pains to formulate and explore a naturalistic approach to ethics setting out from the examination of naturalism with which I began. I argued that of the two main varieties of naturalism—metaphysical and methodological—methodological naturalism is the most viable position to hold. I then discussed ethical naturalism and examined some of the problems associated with attempts to naturalize ethics. After considering various objections and responses to naturalized ethics I concluded that the debate is still open, and that further work in this area is warranted. I drew attention to the idea that the versions of ethical naturalism discussed all appear to presuppose at least some form of an essentialist concept of nature. At that junction I turned to developmental systems theory. The reconceptualization of nature found in the writings of Oyama and other proponents of DST contrasts sharply with such essentialist notions. The inclusion of culture and non-genetic factors within the natural may change how we see ethics. The intent of this project has been to outline some of the changes in how we see ethics when understood from the theoretical/empirical perspective of DST. So, I am not solely concerned with approaching ethics from a naturalistic position, but from the viewpoint of DST specifically.

I then turned to an examination of autonomy, and offered a naturalized account of autonomy under the umbrella of DST (NADST). I argued that autonomy if naturalized, and guided by DST, must be seen as admitting to differences of degrees. This argument turns on the idea that autonomy can be seen as the capacity to access available alternatives. I called this capacity "autonomy-as-available-alternatives." In short, different individual organisms have different faculties, different paths, and different faculty/path relationships. It is in these differences that autonomy is shown to admit of degrees. On this basis we can establish what it means to be more or less autonomous. The most autonomous creatures are those with all possible faculties, all possible paths, and all paths and faculties in the kind of relationship that allows for access to and recognition of the paths. As mentioned in earlier chapters, this is simply an ideal, and no creature on this planet appears to possess this degree of autonomy; however, it seems clear that some do possess a higher degree of autonomy than others. I argued that it is in this difference that we can find room to hold certain individual organisms responsible for their actions. Organisms that possess the faculty of reason, a path, and the proper relationship between the faculty of reason and the path can be held responsible for their actions because they have the capacity to ask what action *should* be performed. Their autonomy is of a degree that allows for alternative actions to be available, and allows for the capacity to judge if these available alternative actions are to be acted on or not. This lead to the following questions: 1) What sorts of faculty/path relationships motivate an action rather than just a mere behavior? 2) Is the possession of reason as a faculty necessary for a behavior to count as an action? 3) If the faculty of reason is not necessary for a behavior to count as an action, then what is?

I argued that although reason can play a role in autonomy, it does not necessarily play the *primary* role in determining whether an organism is autonomous. Reason is just one of many possible interactants involved in the development of autonomy. Reason is not the sole necessary motivating source of an action. One other possible motivating source of action is inclination. This lead to two further questions about inclination: 1) What is the source of inclination? 2) How is it that inclination can be seen as agential? In light of these questions, I investigated the notion of inclination, and how it might look if approached from the standpoint of DST. I examined an argument by Tamar Schapiro, and noted that her allowance of nonrational activity as consistent with agency opens the possibility for more alternatives. I then concluded that this makes Schapiro's notion of inclination a better fit for NADST than either the extreme anti-rationalist or extreme rationalist accounts of inclination.

My project has been shaped by the general naturalistic commitment that ethical normativity is compatible with scientific explanation. In the final chapter, investigated two prominent and contemporary versions of ethical naturalism offered by John McDowell and Owen Flanagan in order to compare them to the DST-informed view I developed in the first four chapters. I argued that the concept of nature used in these versions differs from the notion of nature found in naturalistic frameworks that assume DST. Both Flanagan's and McDowell's versions of naturalism either assume some form of essentialist notion of nature, or at least maintain a dichotomy that is not needed if DST is the guiding principle.

In closing I suggested that the project of naturalizing ethics, if informed by DST, should view moral agency as an outcome of a developmental moral system. This system

is one that evolves not merely developmentally, biologically, or culturally, but along a trajectory defined by the intersection of all three. Further, ontogeny and phylogeny, and genes and environment, no longer stand in dichotomous relationships. In contrast, these factors are seen as involved in an interactive relationship that mutually constructs phenotypes. This view sees genetic and non-genetic factors as a working whole, all under the umbrella of "the natural." The interaction between genetic and non-genetic factors constitutes a system that either allows an organism to be autonomous, to a degree, or prevents an organism from being autonomous, to a degree. This approach places autonomy squarely in the realm of the natural.

In addition, I have urged that the inseparability of genetic and non-genetic factors is crucial with regard to attributing responsibility to organisms. NADST proposes that autonomy admits of differences in degree, and that it is in these differences that room can be made for responsibility. Describing autonomy as the capacity to access available alternatives helps to articulate how these differences in degree come about. If available alternatives are the result of having an available faculty and path in the kind of relationship that allows access to the path, and different faculties allow for different paths to be recognized and accessed, and different paths offer different alternatives to be recognized and accessed by these faculties, then assuming that organisms do not all share the exact same faculties, paths, and faculty-path relationships, it follows that individual organisms will differ in the quality and quantity of autonomy they possess at a given time. If responsibility is attributed to only those organisms that have a certain degree of autonomy, as autonomy-as-alternatives suggests, then the faculties, paths, and faculty-path relationships that are included in an organism's system play a significant role in

determining whether or not an organism's degree of autonomy meets the minimum criteria for attributing responsibility to that organism.

Further, the faculties, paths, and faculty-path relationships that are present to an organism are always the product of interaction between genetic and non-genetic factors. Thus, the relationship between genetic and non-genetic factors present in an organism's system play a significant role in determining the degree of autonomy possessed by an organism, and thus play a significant role in determining if an organism's degree of autonomy warrants attributing responsibility to that organism. Autonomy-as-available-alternatives maintains that the relationship between genetic and non-genetic factors must allow for the recognition of the right kind of available alternatives in order to attribute responsibility to an organism. I have argued that the right kind of available alternatives only present themselves when the organism in question has available the faculty of *reason*, and it is situated in a manner that allows the organism to access an available path. Further, the organism in question must have the capacity to ask if it *should* act on the available path which is a capacity that is also only available to those organisms that have reason as an available faculty. So, simply satisfying the minimal criteria for autonomy is not coextensive with having moral responsibility. In short, it is the interaction between genetic and non-genetic factors that enables an organism to not only do otherwise, but also to reach a level of autonomy that allows for the organism to not only access available paths, but also question which path[s] it should access, and thus justify attributing responsibility to that organism.

It will be helpful to reiterate what goals this project does and does not pursue. This project is not applied ethics. It does not directly engage in moral theory. I do not

address any specific moral problems, nor attempt to offer solutions to any pressing ethical matters. I have not attempted to show how one would go about addressing a moral problem by application of some guiding principle or rule. Rather, my project may be best seen as having a meta-ethical character. I argue that ethics needs to be compatible with and understood from a scientific perspective. DST seems a beneficial avenue of explanation within science, and thus, it is worthwhile to examine the implications of naturalizing ethics under the guise of DST. The goal of the project was to sketch out some of the changes in how we see ethics when viewed in this way.

More needs to be said about how differences in degrees of autonomy arise. I have made a point of explaining how it is that an organism can have more or less autonomy based on the available faculties, paths, and the faculty/path relationship; but it is important to consider not only the different *degrees*, but also the different *qualities* of autonomy. In addition, further questions remain regarding the faculty/path relationship. When assessing the relationship between faculties and paths it is important to recognize the sorts of possible relationships available to the organism in question. One avenue of investigation that may help lead the way in accomplishing this task is found in Richard Campbell's process-based model for ontology. The success of a DST approach to naturalized ethics thus may depend upon a further exploration of the success of process ontology.

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