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Techno-Salvation: Developing a Christian Hermeneutic of Enhancement Technology

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TECHNO-SALVATION: DEVELOPING A CHRISTIAN HERMENEUTIC OF

ENHANCEMENT TECHNOLOGY

A Dissertation

Submitted to the McAnulty College and Graduate School of Liberal Arts

Duquesne University

In partial fulfillment of the requirements for

the degree of Doctor of Philosophy

By

Richard L. Wilson

May 2017

TECHNO-SALVATION: DEVELOPING A CHRISTIAN HERMENEUTIC OF

ENHANCEMENT TECHNOLOGY

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ABSTRACT

TECHNO-SALVATION: DEVELOPING A CHRISTIAN HERMENEUTIC OF

ENHANCEMENT TECHNOLOGY

By

Richard L. Wilson

May 2017

Dissertation Supervised by Darlene Fozard Weaver, PhD

A cadre of scientists, philosophers, and ethicists labeled transhumanists and posthumanists argue that by strategic use of technology we can greatly enhance human beings into our next stage of evolution. Rather than leave the evolutionary process to natural results, transhumanists and posthumanists want to shape humanity to meet our own desires. This direct goal of changing human beings has profound implications for Christian faith and practices. At the same time, there is no reason to think that the utilization of technological enhancements *will not* happen. As such, to best meet the challenge, it is unavoidable for Christians to engage transhumanism and posthumanism in an attempt to help guide which technologies should be pursued and which should be avoided. This project works toward that end.

Beginning with competing views of what it means to *be* human the common positions of physicalism and substance dualism are shown wanting despite strong arguments in their favor. This project argues for a middle position – ensoulment – that attempts to take the best of both approaches but minimize their weaknesses. Likewise, this project examines the moral positions that propose the only moral criteria that matters is either "personhood only" or "human nature only." Both of these positions are likewise found wanting and a third mediating position is pursued – an agency of relational responsibility. With these preliminary issues established, this project then proceeds to develop a hermeneutic of enhancement from a Christian perspective. The hope is that by following this model, Christians can help guide, accept, or reject various technologies as they are presented. The push for human enhancement cannot be stopped – there are simply too many goods to be obtained by their pursuit. However, any particular enhancement is not inevitable, and by utilizing the hermeneutic proposed in this project Christians can principally evaluate which enhancements should be allowed and which should be avoided.

DEDICATION

To my Lord and my God, the one guides my steps and has saved my soul.

And to my wife, Jaime. No one has sacrificed more for this journey than you. You are the

kindest and most generous person I have ever known, and I am humbled to call you my

wife. Thank you for all that you do and all that you have done.

And to my children: David, Ashleigh, and Ryan. You are joys of my life. Thank you for

your patience when I could not play with you or attend your many functions. I will

endeavor to redeem the lost time.

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To the faculty at Southern Evangelical Seminary, thank you. To Dr. Tom Howe, you were a model for the type of professor I want to be – intelligent, informed, and whimsical. To Dr. Richard Howe, thank you for our many talks, our very first

conversation many years ago shaped the direction of my academic studies. To Dr. Leventhal, your kindness, compassion, and holiness are enviable. Your love for the Lord is palpable and infectious. To Dr. Geisler, your influence on my intellectual life is obvious to many. To Dr. Detzler, your dedication to God's Kingdom is inspiring and your compassion for your students is evident to all who know you.

To my friends and colleagues from Duquesne, each of you have influenced me in many ways for the better. To my cohorts at Duquesne, David Demboski, Jeff Schooley, Joyce Konigsberg, as well as Steve Perry, Justin Pearl, Mike McGravy, and Dr. Ben Burkholder. Thank you all for your friendship and our many conversations, I learn something from each of you whenever we talk and you each have expanded my intellectual horizons in surprising ways.

To my friends and colleagues from Southern Evangelical Seminary, I have developed deep and lasting friendships with each of you and your influence on my life should be apparent to anyone that knows me. To Dr. Doug Beaumont, Mike Hipsley, and Dr. Jason Reed – my life is more enriched and stimulating by the sheer fact I have the honor to call you friends and brothers. To Matt Graham, Duke and Nora Hale, Dr. Brandon Dahm, Dr. Bryan Appley, Dr. Doug Potter, Matt Barclay, Simon and Nel Brace, and Dr. Chris Tweedt – thank you for your friendship and the many conversations over the years, each of you holds a special place in my spiritual and intellectual life.

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To my family members, thank you for your patience as we moved away so that I could pursue this degree. Your love and support has carried us through these years and would not have been possible without you. To my mother and step-father, thank you for all of your support. The fact that you believed I could do this was a motivating factor to pursue this degree. To Sid and Lauren, as well as Kati Mac, Madi, Jake, Cameron, and Emmy – thank you for your support and prayers as we trekked on this adventure. To Tori, thank you for your ever optimistic outlook and love. To my father-and-mother-in-law thank you for allowing me to drag Jaime *even further* away so that I could pursue this degree – your support and generosity have not gone unnoticed. To Nana, though death has just taken you from us, your love and prayers have sustained us these years and can be felt over the many miles that separate us. To GiGi, who also recently passed away, your love and generosity have likewise kept us going when times were difficult, we would not have been able to do this without you.

Finally, to my wife and children. Words cannot express the gratitude I have for you and your willingness to follow me in pursuit of this degree. I owe you each my very life and I will strive to make myself worthy of the titles husband and father. Jaime, your love, support, compassion, encouragement, and gentleness are the hallmarks of a godly woman. I will never stop trying to earn your affection for the sacrifices you have made. I pray I prove worthy of your generosity and charity. To David, Ashleigh, and Ryan, Daddy has missed too many playdates and other events, but that is going to change. Each of you are growing into wonderful and godly people and I am excited (if not also a bit saddened by how quickly you have grown) to see the quality of character each of you will develop as you grow. It is bittersweet to see your children grow up, for they will always

be "our babies." I pray that the Lord guide you and keep you. May this journey draw us ever closer together as a family. I love you and thank you for your sacrifice that allowed me to complete this degree. Again, to anyone I failed to mention, please forgive my oversight.

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ABBREVIATIONS

AI	Artificial Intelligence
ARR	Agency of Relational Responsibility
CC	*Catholic Catechism*
CRTT	Computational and Representational Theory of Thought
DIT	Disappearance Identity Theory
ICR	*Institutes of the Christian Religion*
IE	Inferred Entity
IT	Identity Theory
LEV	Longevity Escape Velocity
LLI	Leibniz's Law of Indiscernibles (Leibniz's Law of the Indiscernable of Identicals)
LTE	Law of Transferable Epithets
MRMP	Multiple Realizability of Mental Properties
PAP	Principle of Alternative Possibilities
SENS	Strategies for Engineered Negligible Senescence
SSRIs	Selective Serotonin Reuptake Inhibitors
SCG	*Summa Contra Gentiles*
ST	*Summa Theologiae*
TIT	Translation Identity Theory
TSD	Thomistic Substance Dualism

Chapter 1

Enhancement Technology and the Need for a Hermeneutic

> I will be advancing two main theses. The first is that some possible posthuman
> modes of being would be very good. . . . The second thesis is that it could be very
> good *for us* to become posthuman.
> > — Nick Bostrom, "Why I Want to be a Posthuman When I Grow
> > Up", 29

> The most significant threat posed by contemporary biotechnology is the
> possibility that it will alter human nature and thereby move us into a "posthuman"
> stage of history.
> > — Francis Fukuyama, *Our Posthuman Future*, 7

1.1 Introduction

Technological advances are rapidly altering the world around us. Accompanying

these swift changes, a group of scientists, philosophers, futurists, and ethicists – called

"transhumanists" – plot a direction for humanity that is at once fascinating and chilling.

For if their prognostications should come to pass, then what we know as the human race

will likely cease to exist – and a "posthuman" future awaits.[1] Theologian Ted Peters

expresses this dual uneasiness well. He says, "the transhumanists propose a technology

that will enhance our humanity, or at least the intelligent aspect of humanity. On the other

hand, once technology takes over and replicates itself, it will leave our present stage of

humanity in the evolutionary dust."[2] Indeed, if the transhumanist's predictions are correct

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[1] While often linked, "tranhumanism" is distinct from "posthumanism" and should be kept
separate. One can be a "transhumanist" without being a "posthumanist," but one cannot be a
"posthumanist" without also being a "transhumanist."

[2] Ted Peters, "Progress and Provolution: Will Transhumanism Leave Sin Behind," in
Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement, ed. by
Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 77.

then we will *want* to cease existing in our current feeble state and instead embrace the progressive technological leaps they advocate.

The human condition is wonderful, but limited. We get sick; we are not as intelligent as we would like; we grow old; we suffer emotional anguish; and eventually we die.3 Transhumanists are not content to leave humanity in this state. By intelligently utilizing technology and scientific research, transhumanists want us to take control of our collective future. We can make ourselves better.4 We can end disease, lengthen our lifespans, increase our intelligence, and enhance our emotional responses.5 We can make all of our lives better by implementing the advances afforded by scientific discovery. We no longer need to be guided by the fickle whims of the Darwinian paradigm. We can direct our own evolution in order to meet our own desires.6

The transhumanist allure is appealing. After all, who does not want to be – or have their children be – healthier, smarter, and live longer? These yearnings are prevalent among all people. What is different are the means to achieve these ends as well as the

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3 Ibid., 65.

4 Stephen Garner, "The Hopeful Cyborg," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 87. Anders Sandberg makes the same observation. "Transhumanism and the Meaning of Life," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 3.

5 The first article of the *Transhumanist Declaration (2012)* reads: "Humanity stands to be profoundly affected by science and technology in the future. We envision the possibility of broadening human potential by overcoming aging, cognitive shortcomings, involuntary suffering, and our confinement to planet Earth." *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 54.

6 Ted Peters, "Progress and Provolution," 65. Charles T. Rubin notes this same trend. *Eclipse of Man: Human Extinction and the Meaning of Progress* (New York: New Atlantis Books, 2014), 125. Also see, Braden Allenby and Daniel Sarewitz, *The Techno-Human Condition* (Cambridge, MA: The MIT Press, 2011), 3.

possible consequences of pursuing such goals. Many Christian theologians are skeptical

of the transhumanist's claims.7 They are not skeptical in the transhumanist's ability to

bring about their stated goals (though it is sometimes that too), but rather in that the

intended goal will actually be achieved. Will living an indefinite life-span actually make

one "happy"? Does it provide meaning? Why would living longer necessarily infuse

meaning in one's life? How will it be determined who becomes enhanced? Will

enhancement just increase the disparity between the powerful and the underprivileged?

Other questions like these arise and the answers are not always easy. This project seeks to

answer some of these questions, but primarily, this project will chart a course for

deciding which technologies could be accepted as well as which should be rejected.

Scientists are already incorporating many of these technologies, and their impact on

society *will* be felt. For enhancement technologies affect us all, both directly and

indirectly. Thus, Christians should have a voice in which technologies should be pursued

since technological advances will influence how Christians live their lives before God.

Technology that fulfills the "Great Commission" and draws people to God may find

Christians endorsing it, but technology that appears to draw people away from God may

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7 For example Brent Waters says that transhumanism offers a "counterfeit salvation" and is "predicated on a death wish." Brent Waters, "Whose Salvation? Which Eschatology?" in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, DC: Georgetown University Press, 2011), 173-174. Ted Peters calls transhuman notions of progress "naïve" because it often fails to account for human proclivities towards evil. Ted Peters, "Transhumanism and the Posthuman Future: Will Technological Progress Get Us There?" in *H+: Transhumanism and Its Critics*, ed. by Gregory R. Hansell and William Grassie (Philadelphia: Metanexus Institute, 2011), 148. Criticism is not just limited to Christians however. Hava Tirosh-Samuelson offers a strong Jewish critique of transhumanism as well. For example, she laments that transhumanism is "the gradual transition from biological humanism to mechanical posthumanism, its *telos*. . . . [H]uman enhancement is but the beginning of a process in which humanity will bring about its own demise, supplanting it with virtual existence." Hava Tirosh-Samuelson, "Utopianism and Eschatology: Judaism Engages Transhumanism," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 162—163.

find Christians denouncing it. This project is designed to help Christians navigate the technological landscape so as to evaluate which technologies could lead to spiritual growth and which may lead to spiritual deprivation.

1.2 Definitions

There are a few terms and concepts that will be referenced throughout this project. As such, it is necessary to define the limits of each term to avoid confusion. While the following terms are presented as being in opposition to each other for purposes of understanding, in reality, they often go together and are not necessarily opposed to one another.

1.2.1 Transhumanism and Posthumanism[8]

Prominent transhumanist, Max More notes there is no *one* definition of transhumanism, because transhumanism is more of a movement than a well-defined concept. There are general agreements on what transhumanism *is*, but there is no one correct definition. Transhumanism is typically thought to be a "philosophy of life" that attempts to relieve "human limitation" through the use of technology.[9] Likewise, leading

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[8] More detail of the historical backdrop for transhumanism and posthumanism can be found in: Max More, "The Philosophy of Transhumanism," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 8—12; Nick Bostrom, "A History of Transhumanist Thought," http://www.nickbostrom.com/papers/history.pdf (accessed March 19, 2015); and Michael S. Burdett, "Contextualizing a Christian Perspective on Transcendence and Human Enhancement: Francis Bacon, N. F. Fedorov, and Pierre Teilhard de Chardin," ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 19—35.

[9] An early definition that More attributes to the movement says that transhumanism is: a philosophy of life that seeks "the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations by means of science and technology, guided by life-promoting principles and values." Max More, "The Philosophy of Transhumanism," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 3.

transhumanist intellectual Nick Bostrom identifies transhumanism as a "loosely defined movement" that "promotes an interdisciplinary approach to understanding and evaluating the opportunities for enhancing the human condition and the human organism opened up by the advancement of technology."[10] Bostrom gives a complementary notion of what transhumanism is in his *FAQ*.[11]

In general, transhumanism can be understood as an "intellectual and cultural movement" with a focus on "improving the human condition" by the prudent use of technology. This does not mean that any and all technologies should be pursued, for there is a recognition that some technological means may be truly bad for humanity.[12] Of course, the key is determining which technologies are and are not bad for humans. Overall, however, there is a sense that the use of technology can make things better for us.

The implications of this approach, though, involve the conclusion that it "is not our human shape or the details of our current human biology that define what is valuable

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[10] Nick Bostrom, "Transhumanist Values," http://www.nickbostrom.com/ethics/values.html. (accessed March 19, 2015). Bostrom gives the same definition in his article "Human Genetic Enhancements: A Transhumanist Perspective," http://www.nickbostrom.com/ethics/genetic.html (accessed March 19, 2015). Which is a reprint from the *Journal of Value Inquiry* 37, no. 4 (2003): 493—506.

[11] "Transhumanism is a way of thinking about the future that is based on the premise that the human species in its current form does not represent the end of our development but rather a comparatively early phase. We formally define it as follows:
(1) The intellectual and cultural movement that affirms the possibility and desirability of fundamentally improving the human condition through applied reason, especially by developing and making widely available technologies to eliminate aging and to greatly enhance human intellectual, physical, and psychological capacities.
(2) The study of the ramifications, promises, and potential dangers of technologies that will enable us to overcome fundamental human limitations, and the related study of the ethical matters involved in developing and using such technologies." Nick Bostrom, "The Transhumanist FAQ: A General Introduction." http://www.transhumanism.org/resources/FAQv21.pdf. (accessed March 19, 2015).

[12] Bostrom spends a significant amount of space trying to identify possible problems with enhancement technology. See Nick Bostrom, "Existential Risks: Analyzing Human Extinction Scenarios and Related Hazards," http://www.nickbostrom.com/existential/risks.pdf (accessed, September 3, 2015).

about us, but rather our aspirations and ideals, our experiences, and the kinds of lives we lead."[13] That is, there is paradigm shift in understanding what it means to be human, and what really *are* true human goods. With our technical control over biology, we are free to make humanity after our own goals and desires. A tempting yet terrifying offer. It is tempting because of the various goods promised, but it is terrifying because of the potential abuse by nefarious people. In the end, transhumanists often leave it to the individual to decide if enhancement is "right for them." Thus, individual autonomy plays a key role in promoting the transhumanist agenda. Given our technological accomplishments, can we really deny the desire of some people who wish to pursue transhumanist ends? Especially if it does not harm others?

There is no one type of transhumanist. Instead, it is a general approach to science and life. The basic philosophical approach for transhumanists is thoroughly rooted in the enlightenment.[14] Transhumanism stresses personal improvement, human reason, science, technology, and a rejection of the religious. Transhumanists are interested in the progress of the human species, not necessarily perfection.[15] Given the fact that humans are the by-product of an evolutionary process, transhumanists believe we have the prerogative to direct the next stage of our evolution. We no longer need to be tied to the capricious whims of Darwin's system. By utilizing technology, we can lift ourselves by our own intellectual bootstraps.

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[13] Bostrom, "The Transhumanist FAQ," http://www.transhumanism.org/resources/FAQv21.pdf. (accessed March 19, 2015).

[14] More, "The Philosophy of Transhumanism," 4.

[15] Ibid., 5.

Posthumanism is a slightly different viewpoint in the enhancement debate and should be distinguished from transhumanism. As noted above, transhumanists are interested in providing for *human* enhancement. There is no necessary connection with the end results of enhancement technologies leading to a new species. Posthumanism, however, sees the outcome of enhancement technologies being an entirely different species – one that is no longer human.[16] Hence, "posthuman" literally means "after human(s)." And given the various changes proposed by transhumanists, an enhanced human future is "fully *posthuman*."[17]

Following Nick Bostrom, a "posthuman" can be defined as a being with at least one "posthuman capacity."[18] A "posthuman capacity," he says, is a "general capacity" exceeding its natural maximum limit.[19] That is, the maximal limit cannot be reached without the use of technological help. A "general capacity" is categorized as "healthspan" (the ability to remain physically and mentally productive), "cognition" (one's ability to remember, reason, focus, and understand), and "emotion" (the ability to enjoy life and respond to situations and people appropriately).[20] As such, someone who obtains either a

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[16] David Hopkins puts it this way, transhumanism "attempts to free us from the human condition by enhancing desirable human traits to an extent that surpasses the limits of the class. The posthuman approach attempts to free us from the human condition by changing the source organism so radically that the resulting beings would not longer be human at all." Patrick D. Hopkins, "A Salvation Paradox for Transhumanism: *Saving* You versus Saving *You*," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 73.

[17] Ted Peters, "Progress and Provolution," 65 (emphasis in original). Peters notes, that should transhumanism achieve its goals, the posthuman is what awaits. Ibid., 66.

[18] Nick Bostrom, "Why I Want to Be Posthuman When I Grow Up," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 28.

[19] Ibid., 28—29.

[20] Ibid., 29.

greater than naturally allowed lifespan; a greater than naturally possible intellect; or a greater than naturally allowed emotional spectrum (or control), would be considered a "posthuman." Again, this is because no "mere" human – however great – would be able to obtain these abilities without the help of technological interference. For the posthuman advocate, the greatest Einstein that humanity can naturally produce would pale in comparison to the lowliest cognitively enhanced posthuman person. Likewise, no matter how long humans can naturally live, it will not be able to exceed the hundreds – or even thousands – of years posthuman proponents are trying to achieve.[21]

There are significant similarities and differences between transhumanism and posthumanism. Again, not all transhumanists are posthumanists, but all posthumanists are transhumanists. The "end goal" for posthumanists appears to be "grander" than that of the transhumanist. Whereas the transhumanist wants to improve the human condition – it does so without the express intent of bringing forth a new species. That is, transhumanism is not necessarily connected to the conviction that *homo sapiens* will cease to exist as a result of our technological progress. Posthumanism, though, sees the

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[21] One immediate objection that appears when posthumanists discuss lengthening lifespans to multiple centuries is the potential impact of overpopulation, and with it the increased stresses that it puts on the planet's resources. Earth appears to already be negatively impacted by billions of (relatively) short lived humans. How much more of an impact would billions upon billions of (relatively) long lived humans affect the planet?

There are often two responses by posthumanists. The first is to limit the number of persons able to achieve multi-century lifespans. Aubrey de Grey takes this approach. See his, "Aging, Childlessness or Overpopulation: The Future's Right to Choose," http://www.sens.org/files/pdf/ed7-4.pdf (accessed January 4, 2016). Under this proposal, those who choose to live longer than normal lives will forfeit the right to have children. If this proposal is adopted, then the number and impact of humans currently on Earth should remain stable. The second approach championed by Mark Walker is to earnestly pursue cognitive enhancement so that we will have the ability to solve this problem. As far as Walker is concerned, we mere humans cannot solve the complex problems facing us – overpopulation and climate change are just two examples. Hence, we *need* enhancement technologies just to avoid extinction. See his, "Ship of Fools: Why Transhumanism Is the Best Bet to Prevent the Extinction of Civilization," in *H+: Transhumanism & Its Critics*, ed. by Gregory R. Hansell and William Grassie (Philadelphia: Metanexus Institute, 2011), 94—111.

extinction of *homo sapiens* as a near certainty given the pressures that will be put on them by an advanced society of persons with posthuman capacities. In a Darwinian sense, if survival of the fittest is really determinative of who survives and who does not, and if the posthuman is supremely more fit than mere humans, then it is only a matter of time before the merely human is completely replaced by the posthuman.

1.2.2 Therapy and Enhancement

There is a common distinction in bioethics between therapeutic and enhancement technology. The supposed difference is that "enhancement" technologies build on what is normally the case, while "therapeutic" technologies repair and replace what is normally the case. This leads Karen Lebacqz to remark that the interesting question is what counts as a genuine "enhancement."[22] Prosthetic limbs, for example, are normally thought to be "therapeutic" while many plastic surgeries are thought to be purely "enhancement." However it is possible for a prosthetic enhancement to be a cosmetic therapy.[23]

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[22] Karen Lebacqz, "Dignity and Enhancement in the Holy City," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, DC: Georgetown University Press, 2011), 51.

[23] When a soldier loses a leg to a grenade, a prosthetic leg can be attached giving the soldier a modicum of mobility that they once had. Current prosthetic technology is not nearly as efficient or useful than our normal limbs. However, it is not difficult to imagine the day when prosthetic limbs are not only equal to natural arms and legs, but better – stronger, more sensitive, and resistant to damage. Likewise, patients disfigured by disease or some injury can undergo plastic surgery. Those seeking therapeutic plastic surgery are often seen as brave and noble for wanting to gain a semblance of their life pre-deformation. However, those who seek plastic surgery who are not disfigured and have no medical need to do so, are met in society with a slightly different reaction – not necessarily rude, but not with overwhelming approval either. For example, suppose two people get face lifts. The first patient has had a hard fight with skin cancer and wants to "balance" out her facial features. Very few people would question such a motive for wanting this therapeutic treatment. Patient number two, however, just cannot stand the fact she has "crow's feet" and "laugh lines." We may not feel anger at the second patient, nor may we want to deny someone the opportunity to undertake this procedure, but the motivation for this surgery is less morally satisfying than for the first patient. Another related, and actually more relevant concern for enhancement technology, is the increasing cases of Body Identity Integrity Disorder (BIID). This is when someone feels as though they should be without a leg or an arm. That is, even though they have a perfectly functional normal body part, they *feel* as though they should not have it. It is not too much of a stretch to imagine people in the not too distant future who identify with being a cyborg – even though they have a properly functioning arm or leg,

Interestingly enough, what this implies is that the difference between enhancement and therapy cannot be based on the actual techniques utilized.24 For the same technology may be either used for therapy or enhancement. This, of course, is part of the problem in the enhancement debate: it is easier to identify a "disease" or "defect" than it is to identify what is "normal."25 The underlying difference between therapy and enhancement is simply the motivation for the procedure. The same technique can be used for both. This means that one cannot appeal to the technology *itself* as the reason to forgo enhancement – for the same technology may be needed for therapeutic reasons.26

From this it follows that the difference between therapy and enhancement is based on the most hidden of factors – purpose. As such, below are the following working definitions that will guide this project. "Therapy" is the utilization of technology (usually medical) to restore lost capacities or to raise abnormally low capacities to abilities within the "normal" human spectrum. "Enhancement" is the utilization of technology (not necessarily medical) to increase normally functioning capacities towards or surpassing

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they will *feel* as though they should have a cybernetic one. See Sabine Müller, "Body Integrity Identity Disorder (BIID) – Is the Amputation of Healthy Limbs Ethically Justified?" *The American Journal of Bioethics* 9, no. 1 (2009). In other words, *cosmetic* therapeutic treatments are often morally uncontroversial. If someone wants to have breast reconstructive surgery after a mastectomy, there is hardly anything controversial about this. However, *cosmetic* enhancement treatments give one greater moral pause. Can breast enhancement be morally justified? Likewise, the same question can be applied to any cosmetic treatment. Please note, that I *am not* saying that cosmetic breast enhancement or face lifts or any other surgery may not possibly be justifiable. Rather, I am simply noting that the motivation for the treatment is the delimiting factor that determines the morality of the action. Therapeutic treatments tend to be morally uncontroversial, but enhancement treatments are more likely to be morally controversial.

24 Lisa Sowle Cahill, *Theological Bioethics: Participation, Justice, Change* (Washington, D.C.: Georgetown University Press, 2005), 236.

25 Ibid.

26 Aristotelian causes can be used to distinguish between therapy and enhancement. In both therapy and enhancement the formal, efficient, and material causes are the same. "What the technology does and is," "who creates the technology," and "out of which the technology is created," is exactly the same for either therapy or enhancement. The lone distinguishing factor is in the final cause – the purpose, the *telos*, or the "why" of the technology.

the upper limits of the "normal" human spectrum. These definitions are flexible enough to account for a variety of scenarios using the same technology, but make the key distinction regarding the purpose of using that technology.27

1.2.3 Moderate Enhancement and Radical Enhancement

A much fuller account of the distinction between moderate and radical enhancement will appear in chapter 6. For now, it should be noted that "moderate" and "radical" for this project refer to the moral dimension of enhancement technology. "Moderate" enhancements are relatively morally unproblematic – that is, any attending moral issues with the proposed enhancement do not restrict the possibility of pursuing its benefits. "Radical" enhancements, however, are relatively morally problematic – the attending moral issues with these proposed enhancements restrict their pursuit until it can be shown that they are not actually "radical." Stated another way, the terms "moderate" and "radical" when applied to enhancement technologies will be understood in a normative sense – that is, moderate enhancements are morally permissible, but radical enhancements are not. This is not to be confused with the *descriptive* aspects of enhancement technologies, which refer to the objective abilities of the technology. Part of the problem is that the normative and descriptive notions of enhancement technologies are so intertwined that separating one from the other is often a difficult task.

For example, Nicholas Agar says that "radical" enhancement "improves significant attributes and abilities to levels that *greatly exceed* what is currently possible

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27 Gilbert Meileander remarks "I think, however, that the difference between therapy and experiment continues to be of moral importance." Gilbert Meilaender, *Bioethics: A Primer for Christians* (Grand Rapids, MI: William B. Eerdmans, 1996), 107. What Meileander calls "experiment" could be replaced with enhancement. His point stands that there is a moral difference between the two, and the point of differentiation is found in the final cause of the action itself.

for human beings."28 Likewise, he says "moderate" enhancement "improves significant attributes and abilities to levels *within or close to* what is currently possible for human beings."29 Notice how Agar combines the normative and descriptive features for enhancement technology. For Agar, an enhancement is "radical" if it "greatly exceeds" our current abilities – but this is a descriptive notion of "radical" that he also takes to imply a moral imperative of avoidance. In a similar manner, "moderate" enhancements are "within" reach by humans naturally – again, this is a descriptive notion laden with moral implications of permissibility. Basically, Agar combines the objective and moral dimensions for "moderate" and "radical" enhancements – a move this project distinguishes. Another example may help illuminate what is happening. Agar indicates that a (objectively) "radical" enhancement, say significant life extension *ala* Aubrey de Grey (aiming for multi-millennia life-spans), is also a (morally) "radical" enhancement. Hence, it should not be pursued. This project however, may still arrive at the same conclusion as Agar, but distinguishes between these two senses of "radical." While it may be objectively "radical" to enhance life-spans thousands of years – what this project calls "extreme enhancement" is a descriptive term of the objective limits of the technology – it is only if demonstrated to be morally "radical" that the pursuit of this enhancement would be indefinitely prohibited.30 For the time may come when some

28 Nicholas Agar, *Truly Human Enhancement: A Philosophical Defense of Limits* (Cambridge, MA: MIT Press, 2014), 2 (emphasis in original).

29 Ibid., (emphasis in original).

30 "Extreme" enhancement is descriptive and references the objective limits of a given technology. "Radical" enhancement is normative and refers to the morality of the technology. For example, increasing the human lifespan to multiple centuries would be technically "extreme" but it may still be morally permissible and hence it would not be considered "radical." If, per chance, it could be determined that drastically increased lifespans is morally problematic, then this would be deemed a "radical" enhancement – whether the technical aspect were extreme or mundane.

enhancement currently deemed morally "radical" may, in fact, one day be deemed morally "moderate." Again, the issue here is not so much the actual "technique" that is involved (which could be either "extreme" or "mundane"), but rather the moral permissibility of the "technique" (which could vary between "moderate" and "radical").

For the purposes of this project, then, the term "moderate enhancement" will generally refer to enhancement technologies that are normally thought morally permissible. The term "radical enhancement" will generally refer to enhancement technologies that are normally thought morally impermissible. These terms are not to be confused with "mundane enhancements" or "extreme enhancements" which refers to the spectrum of indirect and direct or obtrusive objective technologies. "Mundane" and "extreme" pertain to the technique applied, not its moral acceptability. Again, more details about these distinctions will be found in chapter 6.

1.3 Importance of the Topic

How we approach the issue of enhancement will largely determine the future of our society. Will our society be one of technological hybridized citizens or will it remain largely "natural"? Likewise, it seems unrealistic to assume that technological advancement will simply cease. The opposite has been, and appears to continue being the case. Not only will technological advancements happen, the rate of technological advancement is exponential.[31] Also, depending on the enhancements we accept or reject

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[31] Posthuman proponent, Ray Kurzweil, has utilized this insight to great success. This exponential gain in technological resources is often known as Moore's Law and states that the processing power of computers doubles about every 18-24 months. This is not linear growth, this is exponential growth. Gordon Moore, who worked with Intel, noted that the transistors on a circuit board doubled about every two years. Thus the processing power doubled about every two years. Kurzweil has successfully extrapolated this idea from computer circuitry and has applied it to technology in general. And, should he be believed, it *does* indeed appear that historically speaking our technological advances follow an exponential curve. It starts out (painfully) slow, but by the time of Francis Bacon and the scientific revolution, measurable gains can

says something about how we view the human person. As Alison Adam notes, if the transhumanist sees the human mind as what is essential, then the "desires are to make the body obsolete, to play god in artificial worlds, and to download minds into robots. Such desires are predicated on the assumption that if a machine contains the contents of a person's mind then it is that person. The body does not matter; it can be left behind."[32] For some transhumanists, the human body is not something "sacred" but is expendable, changeable, or replaceable. Mary Ann Doane remarks, "The concept of the 'body' has traditionally denoted the finite, a material limit that is absolute — so much so that the juxtaposition of the terms 'concept' and 'body' seems oxymoronic. For the body is that which is situated as the precise opposite of the conceptual, the abstract. It represents the ultimate constraint on speculation or theorization, the place where the empirical finally and always makes itself felt."[33] For the contemporary transhumanist, this is no longer the case. The body is not static. It can – and sometimes *should* – be changed. Indeed, the lines that traditionally have been "considered natural" are now blurred with the rise of genetic manipulation, nanotechnology, robotics, and information technologies.[34] At the end of the day, the transhumanist issue cannot be avoided.[35] Society will need to address

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clearly be charted. Ray Kurzweil, *Singularity is Near: When Humans Transcend Biology* (London: Penguin, 2005).

[32] Alison Adam, "Feminist AI Projects and Cyberfutures," in *The Gendered Cyborg: A Reader*, ed by Gill Kirkup, Linda Janes, Kath Woodward, and Fiona Hovenden (New York: Routledge, 2000), 281-282.

[33] Mary Ann Doane, "Technophilia: Technology, Representation, and the Feminine," in *The Gendered Cyborg: A Reader*, ed. by Gill Kirkup, Linda Janes, Kathryn Woodward, and Fiona Hovenden (New York: Routledge, 2000), 110.

[34] Garner, "The Hopeful Cyborg," 87.

[35] Ted Peters notes (following Ronald Cole-Turner) that breakthroughs in new technology requires the "need for new ethics" to meet the challenge. Peters, "Progress and Provolution," 64.

the topic of human enhancement, for human enhancements of some sort are not only inevitable, they are already here.

1.3.1 The Power of Therapeutic Technology

Therapeutic technologies can help people recover a semblance of lost capacity due to some sort of ailment or disfigurement. Prosthetics give amputees a level of freedom unavailable without the artificial limb. Pharmaceuticals return a sense of normalcy to many people suffering from headaches, high blood pressure, mental illness, and a host of other issues. Nano-technology is going to significantly alter how medicine is practiced, as doctors will be able to manipulate human tissue at the most basic molecular levels.[36] Genetic engineering promises to end certain ailments and limitations.[37] To the degree that technology returns a sense of ability to the life of the person, its development and distribution are almost guaranteed. The goods of regaining lost capacities, seems to outweigh just about any concern one may have.

Theologian Gerald McKenny remarks in this regard, that the enhancement debate is forced upon us by the therapeutic applications of technology. He says, that some technologies provide more than mere "instrumental" ends. Rather, these new technologies are creating new "ends" – a new *telos*.[38] Therapeutic technologies are

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[36] Robert A. Freitas Jr., "Welcome to the Future of Medicine," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 67—72.

[37] James C. Peterson, *Changing Human Nature: Ecology, Ethics, Genes, and God* (Grand Rapids, MI: Eerdmans, 2010), 78.

[38] For example, he cites selective serotonin reuptake inhibitors (SSRIs) as a way to control depression (i.e., therapeutic application), but this has become a way to alter one's personality (i.e., enhancement application). These SSRIs have created a whole new way for people to develop themselves and express who they want to be. The reality is that, "Biomedical technologies help determine which aspects of ourselves – our personalities, bodies, capacities, and performances – we attend to in our self-forming practices; stimulate and direct desires for self-alteration; form our desires into deliberate projects;

powerful because they create possibilities for people to regain lost capacities as well as create new ones.39

1.3.2 The Promise of Enhancement Technology

Given that the line between therapy and enhancement is not always clear, the obvious question is: why not choose to be enhanced if given the option?40 The transhumanist claim is that humans have been able to change their biology through use of indirect / external enhancements for millennia, but "*for the first time they are becoming capable of changing their biology deliberately, in accordance with what they value, on*

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and bring certain features of ourselves and our activities to our attention while suppressing others. Technology in such instances is not merely a means to an end but also projects new ends, reshapes existing ends, orients us to both new and existing ends, and reorders priorities among ends." Gerald P. McKenny, "Technology," in *The Blackwell Companion to Religious Ethics*, ed. by William Schweiker (Malden, MA: Blackwell Pub., 2005), 462-463.

39 Charles T. Rubin notes that artificial retinas are already being implemented to restore eyesight as well as tiny "telescopes" to correct macular degeneration. These therapeutic advances will very likely "bleed over" into the enhancement realm as time passes. Charles T. Rubin, *Eclipse of Man: Human Extinction and the Meaning of Progress* (New York: New Atlantis Books, 2014), 125. Cf. FDA, "FDA approves first retinal implant for adults with rare genetic eye disease," http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm339824.htm (accessed March 16, 2016). And FDA, "FDA Approves First Implantable Miniature Telescope to Improve Sight of AMD patients," http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm218066.htm (accessed March 16, 2016).

40 Prosthetic limbs enable the amputee to regain a measure of mobility once lost. Should the technology sufficiently advance, then there is no reason to think that prosthetic limbs could not be objectively "better" than natural arms and legs. Theoretically, an artificial arm could be stronger, faster, perform more delicate movements, be more sensitive, and more durable than any natural arm. Given these (theoretical) benefits of the artificial limb, why would a healthy person not choose to replace natural body parts for synthetic? For it would appear that they not only retain the abilities of the natural limb, but replace its limitations with something objectively better. If it is difficult to think of yourself undergoing such a transformation, then imagine an army of cybernetic soldiers who have each opted (or have been forced) to undergo this type of synthetic enhancement. If prosthetic limbs can offer a level of control unobtainable by natural appendages, then will surgeons be "encouraged" to replace their natural arms for cybernetic ones? It seems possible that real, tangible goods can be obtained by pursuing these enhancements. Stronger, faster soldiers. Smarter, more agile surgeons. Everyday citizens freed from the obvious limitations of the natural body.

the basis of scientific knowledge, rather than haphazardly."41 The philosopher Allen

Buchanan reminds us that critics of enhancement often forget how much more productive

and useful enhancements will make us.42 Cognitive enhancements will make us more

productive intellectually. Longevity enhancements will allow us to be productive for

longer. Emotional enhancements will allow us to be productive even in traumatic

situations. Indeed, he says, these realities are almost certainly in the near future.

Enhancement technology *will* happen and it *will* diffuse.43 How this happens can be

mostly directed by government intervention.

The boundaries that separate the natural from the artificial have blurred. Indeed,

for technological man, technology shapes his life, his identity, and his future.

"Technology shapes every aspect of human life, and human identity becomes fluid,

because it is forever being shaped by technocultural forces, and thus one cannot be cut off

from their influence."44 Our very *selves* are shaped (and determined to a large degree) by

our technology.

Human evolution has long been shaped by environmental pressures, and even

more recently shaped indirectly by our own mastery of the natural world. Humans have

thus been at the mercy of the natural evolutionary process, but with the transhumanist

agenda this is no longer the case. With the technological progress we are witnessing, it is

becoming an increasingly pressing question if we want to *remain* wholly biologically

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41 Allen Buchanan, *Beyond Humanity?: The Ethics of Biomedical Enhancement* (Oxford, UK: Oxford University Press, 2011), 41 (emphasis in original).

42 Ibid., 45.

43 Ibid., 53.

44 Summarizing Donna Haraway, Garner, "The Hopeful Cyborg," 89.

human. This future of technologically advanced humans is obviously not without its critics. And the debate itself has devolved into two broad camps. Theologian Karen Lebacqz remarks, "The enhancement debate appears as an 'either/or'— *either* enhancement threatens something about our human dignity because it defies limits intrinsic to human beings and hence to human dignity, *or* enhancement may contribute to human dignity."[45] These are stark distinctions, and the best option is not necessarily clear. For those who predict that a transhumanist (or even posthumanist) future is imminent, it is best to side with technological enhancement since this is the most prudent way to survive and flourish in a dangerous world. To do well in a complex and hazardous world, you will need every advantage available. Like Bostrom, Buchanan notes that not only is it *not* wrong to enhance oneself, it may in fact be morally obligatory to do so.[46]

One way transhumanists are enhancing people is through life extension technologies. There are two views on how to overcome death: radical life extension, or cybernetic immortality.[47] Aubrey de Grey opts for the former, while Ray Kurzweil prefers the later. Aubrey de Grey finds death "repugnant."[48] As such, he is a leader in the anti-aging movement. While de Grey searches for the fountain of youth in various biological technologies, Ray Kurzweil sees death as an obstacle to overcome by utilizing

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[45] Lebacqz, "Dignity and Enhancement in the Holy City," 51 (emphasis in original).

[46] Buchanan, *Beyond Humanity?*, 91.

[47] Peters, "Progress and Provolution," 67.

[48] Aubrey de Grey, "The Curate's Egg of Anti-Anti-Aging Bioethics," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 215—219. For an elaboration on de Grey's proposal, see Aubrey de Grey and Michael Rae, *Ending Aging: The Rejuvenation Breakthroughs That Could Reverse Human Aging in Our Lifetime* (New York: St. Martin's Press, 2007). Please note that this does not mean that the person would then be "immortal." Accidents could still happen and death will still occur – just not by aging.

human cybernetic technology.[49] Kurzweil is optimistic that death will be overcome by changing our very substrate – that is, by abandoning our bodies. Accordingly, about the year 2045, humans will quite literally be able to "upload" consciousness and live a digitally based existence.[50] The implication of this, is that one would live as long as there are processors able to accommodate such a "mind." Thus, life would be nearly indefinite. More about Kurzweil's approach to cognitive enhancement will be pursued in chapter 6. Specifically, his notion of mind-uploading will be the case study in which the theological hermeneutic be employed as an evaluative tool.

Another way transhumanists are altering humanity is through cognitive enhancements. Theologian David Grumett remarks that "fundamental to the transhumanist worldview is the accelerating growth of intelligence and reflection."[51] Surely, cognitive enhancement is uncontroversial. For as Allen Buchanan notes, cognitive enhancement may help solve some major issues heretofore previously unsolved, and likewise help alleviate many minor issues (i.e., lost keys; phone numbers; etc.).[52] For transhumanist proponents, there should hardly be any controversy over whether humans should strive to be as intelligent as possible. If intelligence can be enhanced by technology, then great. But this desire for intelligent growth can be seen also in the notion of the "singularity" (mentioned above). Transhumanism supports not only

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[49] David Grumett, "Transformation and the End of Enhancement," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, DC: Georgetown University Press, 2011), 46.

[50] Kurzweil, *Singularity is Near*, 7.

[51] Grumett, "Transformation and the End of Enhancement," 42.

[52] Buchanan, *Beyond Humanity?*, 47.

the (comparatively) mundane enhancements proposed by Buchanan, but by extension, it supports the (comparatively) extreme enhancements proposed by Kurzweil. Cognitive enhancement is not just a slight "boost" in memory or logical reason, but encompasses a revolutionary re-understanding about what it means to "know" or to be a "person."

Further, transhumanists want to alter human emotions as well – to make the emotions "better." [53] Neuroscientist Michael Spezio understands emotional enhancement better as "emotional control" to the point of suppressing emotions. [54] Allen Buchanan, on the other hand, sees no problems with utilizing "drugs or other biomedical interventions" to "sustain a valuable relationship." [55] That is, if technology (pharmaceutical or otherwise) can be used to enhance emotional attachments and help relationships better flourish, then this would seem to be a point in favor of emotional enhancement. Nick Bostrom admits that therapeutic interventions are clear enough, but beyond that it is difficult to know

[53] Related to, but distinct from, "emotional enhancement" is the notion of "moral enhancement." Emotional enhancement is the control and expansion of feelings, moods, and attitudes. An emotionally enhanced person (in theory) should be able to control the time and intensity of their emotional state. Moral enhancement refers to the ability to act appropriately in a given situation. Presumably, a morally enhanced person would be able to act appropriately despite intense emotional moments. For example, "crimes of passion" occur when someone is so emotionally overcome with anger, grief, etc. that they commit a heinous act, but because of their emotional state their responsibility for the act is often thought to be less than someone who premeditates a similar heinous action. As such, emotionally enhanced beings should (in theory) never commit a crime of passion as they should be able to control their emotions. Likewise, if they are also morally enhanced, then they should (in theory) avoid committing heinous actions even in the presence of increased emotions. Emotions may indicate the direction of appropriate moral action, but they cannot be determinative of what the appropriate moral action is. Anger at injustice may reveal that some change needs to take place, or some person needs to be punished, but it does not grant me the right to execute justice as I may see fit. Just because someone makes me angry by cutting me off in traffic and driving dangerously, it does not give me the right to run them off the road – *even if* they should be arrested and have their license revoked. Thus, we can see the connection and distinction between emotional and moral enhancement. Emotions are about feelings and may point to appropriate moral actions, but morality is appropriately performing or abstaining from some action regardless of the emotions involved.

[54] Michael L. Spezio, "Human or Vulcan? Theological Consideration of Emotional Control Enhancement," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, DC: Georgetown University Press, 2011), 146.

[55] Buchanan, *Beyond Humanity?*, 109.

what would count as an enhancement.[56] For example, while we may be able to understand emotional correction for depression or some other debilitating condition, it is more difficult to understand what it would be like for someone to be "too happy." Likewise, why would being "too happy" be a bad thing? Since happiness is often thought the ultimate goal of all actions, saying "happiness" is bad seems counter-intuitive. But there is another problem as far as Bostrom is concerned. Namely, if the posthuman emerges it is entirely possible that they will have access to emotions that we are literally incapable of having unless enhanced to their level. The problem for us mere humans is that we just simply have no way of knowing what these new and novel emotions would feel like.[57] The key concern for Bostrom is whether it is possible to have these new "posthuman emotions" without diminishing other (valuable) emotions or characteristics.[58] At this point, we simply do not know enough to determine if new (or even more powerful) emotions would displace currently valuable emotions. Bostrom is confident that an enhanced posthuman mind should be able to navigate the variety of experiences with more skill than we unenhanced beings can. Indeed, given our unenhanced desires for better emotive experiences, it is not difficult to find posthuman emotive improvements even more attractive.[59]

Finally, transhumanists are convinced enhancement is necessary to gain and maintain possessed "goods." Feminist philosopher Donna Haraway insightfully remarked

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[56] Bostrom, "Why I Want to Be Posthuman When I Grow Up," 37.

[57] Ibid.

[58] Ibid., 38.

[59] Ibid., 38.

that the lines between what is natural and artificial were blurring, and that the "machines are disturbingly lively, and we ourselves frighteningly inert."[60] The traditional distinctions between biological organisms and technology apply less and less. Technology is becoming more lifelike, while humans are becoming more machinelike.[61] Our technology is slowly replacing *us*. This news, however, is not necessarily detrimental. If there is any regret that machines (or any other technology) are replacing us then this assumes that there is something valuable in humans that is lost in this replacement project. Yet, there is also reason to think that something is not lost in the replacement, but rather gained.[62] As such, "deliberate self-transformation might be dignity-enhancing or dignity-reducing."[63] Motivation for enhancement matters, and motivations that are external to the person's desires may compromise their dignity.[64] However, it is also likely that *not* choosing to be enhanced could also diminish human

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[60] Donna J. Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," in *The Gendered Cyborg: A Reader*, ed. by Gill Kirkup, Linda Janes, Kathryn Woodward, and Fiona Hovenden (New York: Routledge, 2000), 52.

[61] Echoing Haraway's observation, Gerald McKenny notes that ethical evaluations of technology in the twentieth-century believe "that, left to itself, technology steadily encroaches on and eventually replaces human activities and capacities or even human nature itself. While the uniqueness and inevitability theses can be applied equally to the machine age, the replacement thesis captures what is most distinctive of the post-machine era of technology." McKenny, "Technology," 464.

[62] "It is thus possible to argue that the act of voluntary, deliberate enhancement adds to the dignity of the resulting trait, compared to possessing the same trait by mere default." Nick Bostrom, "Dignity and Enhancement." http://www.nickbostrom.com/ethics/dignity-enhancement.pdf (accessed, September 17, 2015), 12.

[63] See Bostrom, "Dignity and Enhancement," 15, and Lebacqz, "Dignity and Enhancement in the Holy City," 54.

[64] Lebacqz, "Dignity and Enhancement in the Holy City," 54.

dignity.65 Allowing humans and technology to merge has the potential to produce real

goods for people.

Indeed, for many transhumanists the "rub" is the social cost of *not* enhancing

people.66 While individuals are the primary objects for enhancement technology, it needs

to be remembered that the benefits of enhancement are not merely private but communal.

As people become enhanced social benefits will be increasingly manifest.67 Further,

philosopher Mark Walker is even more direct in his claim that transhumanism is the best

hope for the preservation of civilization.68 Left to our own devices, humans are likely to

initiate our own extinction. There are enormous problems on the horizon and the only

ones that can solve them in all of their complexity is a society of enhanced beings.69

Thus, what we see from the preceding are two claims: first, enhancement technology is

needed to gain new goods; and second, enhancement technology is needed to keep old

goods. In both cases, enhancement technology is needed.

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65 Ibid.

66 Buchanan, *Beyond Humanity*, 50.

67 Ibid., 49.

68 Mark Walker, "Ship of Fools: Why Transhumanism Is the Best Bet to Prevent the Extinction of Civilization," in *H+: Transhumanism and Its Critics*, ed. by Gregory R. Hansell and William Grassie (Philadelphia: Metanexus Institute, 2011), 95.

69 Ibid., 108. Julian Savulescu and Ingmar Persson concur with this assessment. For them, the key may not be so much in developing technology to solve our problems (though they are not against that), but rather that we will need moral enhancements to guarantee that we do not cause a mass extinction. As they see it, we have the ability to eliminate humankind from existence now, and the best way to prevent this disaster is if we become so morally repulsed by the thought via enhancement that mass extinction scenarios become a moral impossibility. See their, "Getting Moral Enhancement Right: The Desirability of Moral Bioenhancement," *Bioethics* 27 no. 3 (2013): 124—131.

1.3.3 Some Problems with Enhancement Technology

Those who resist transhumanism's siren call are sometimes criticized for having "Luddite sensibilities."[70] But the resistance to transhumanism cannot be completely dismissed as being simply anti-technology. There are tangible concerns anthropologically, ethically, and theologically.[71] Anthropologically, transhumanism assumes a particular form of evolutionary theory, one that is often interpreted to reduce or even eliminate human dignity.[72] Transhumanists often are not aware of their own underlying assumptions and the resulting implications.[73] Based in this particular view of evolutionary theory, if ethics simply arises out of the needs of the herd, then it is difficult to see how ethics can be truly binding. Rather, it seems that ethics could be nothing more than an epiphenomena and would vary from person to person. This is not to say that transhumanists cannot develop a working ethical system, but instead that any ethical system based on epiphenomena cannot be ultimately binding on everyone.

A common criticism (though not without its own problems) is that transhumanism is a denial of "human dignity." The challenge is that enhancement may decrease human dignity by either: 1) choosing the wrong traits to enhance; or 2) lose our dignity in the process of becoming enhanced.[74] Transhumanist proponents are thoroughly aware of

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[70] Celia Dean-Drummond, "Taking Leave of the Animal? The Theological and Ethical Implications of Transhuman Projects," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 116.

[71] Peters, "Progress and Provolution," 77.

[72] Ibid., 65.

[73] Ibid., 78.

[74] Following Leon Kass, Lebacqz, "Dignity and Enhancement in the Holy City," 53.

these types of criticisms. For guarding against "unfortunate" outcomes is a common topic among proponents.75 Thus, ethical considerations occupy a central place in thought of many transhumanists. Buchanan, for instance, sees the central problem of enhancement technology as the slow diffusion of beneficial enhancement technologies.76

One concern is that enhancement technology can be "exploitive." Theologian Lisa Sowle Cahill remarks that research in biomedical technologies is shaped by the "for-profit mode of the market" and "market demand."77 Money is often not directed to areas that necessarily help the most people, but rather goes to where investors can reap the greatest financial reward. Scientists and educators seek grants in areas people are willing to pay, and very few grants pay for healthcare in third-world countries.78 Transhumanism tends to value technique over all else, and may not recognize this tendency. As such, many transhumanists miss that "today's technology is still supported and guided by

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75 See for example, Bostrom, "Existential Risks." Bostrom lists four types of risks: 1) *Bangs* are the most obvious and (near) instantaneous disasters. These include nan-technology gone awry, nuclear holocaust, rogue AI, biological pathogens, etc.; 2) *Crunches* are events that do not destroy humanity, but prevents humans from further developing. These include depletion of resources, poor governmental decisions, technological stagnation, etc.; 3) *Shrieks* are technologies that humans desired and implemented, but ended being bad for humanity. These include rogue AI (again), an uncontrolled uploaded intelligence, poor global governance, etc.; and 4) *Whimpers* are anticlimactic ends to humanity – like the embers of a fire going cold. This risk is not so much found in humanities failures, but its successes. In these scenarios, we simply run down and run out of energy. Examples include evolutionary change that ends the species, running up against physical limits, etc. Likewise, Allen Buchanan devotes significant space evaluating possible threats posed by enhancement technology. See his *Beyond Humanity?* chapter 6. The key difference between enhancement critics and proponents is not so much that proponents ignore the potential dangers, but that proponents do not see the potential dangers as sufficient for *not* pursuing enhancement. Indeed, proponents see it as *more* dangerous to *not* pursue enhancement. See Walker, "Ship of Fools," 94—111.

76 Buchanan, *Beyond Humanity?*, 54.

77 Cahill, *Theological Bioethics*, 215, 217.

78 Research out of Oxford shows a significant increase in healthcare funding for Third-world areas, but even with about $14 billion dedicated in 2005 (and more each year) this only comes from a couple of sources. See David McCoy, Sudeep Chand, and Devi Sridhar, "Global Health Funding: How Much, Where it Comes From and Where it Goes," *Health Policy and Planning* 24 (2009): 407—417.

yesterday's bourgeois values."[79] To the degree these values are exploitive, they may manifest in transhumanist pursuits. For Cahill, the major argument against enhancement technologies, then, is *not* that they are unnatural to the human, but that they are unfair to the non-enhanced.[80] Transhumanism tends to "conflate" biological evolution and technological progress, and when coupled with Darwinian pressures of self-preservation married with a laissez-faire capitalism, the result is that the least powerful and most poor, will be sacrificed to the promise of enhancement.[81] New technology favors those in positions of power. Which has the potential of simply entrenching their power even more. Thus, transhumanist ethics is divided between two opposing forces: 1) capitalist values of Darwinian survival-of-the-fittest; and 2) benevolence to the community.[82] Critics of transhumanism fear – with justification – that benevolence to the community will lose-out when these two values conflict. And they *will* conflict.

Likewise, critics fear that enhancement technology can be "distributively unjust." Theologian Celia Dean-Drummond remarks that "one of the buried ethical problems with transhumanism is the health injustice that it seems to promote, the disproportionate spending on what might be termed exotic science, even while claiming to be an aspiration for the majority of people, because such an aspiration is out of touch with even the most simplistic concrete models of economics and development."[83] Similarly, Cahill argues

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[79] Peters, "Progress and Provolution," 75.

[80] Cahill, *Theological Bioethics*, 238.

[81] Ibid., 215.

[82] Peters, "Progress and Provolution," 72.

[83] Dean-Drummond, "Taking Leave of the Animal?," 124.

that enhancement technology of "normal" traits is distributively unjust, since the money that goes to making us "better than well" could be used to supply "clean water, food, basic health care, prenatal care," and go to AIDS prevention and research.[84] Each of these projects is more worthy of our funding than fringe research that will benefit a few privileged individuals.[85]

As it turns out, according to these critics, transhumanism is an exercise in social Darwinism at the financial level. "Transhumanism is not a philosophy for the losers, for the poor who are slated to be left behind in the struggle for existence."[86] Only the wealthy will (at least initially) be able to afford the technological benefits transhumanist science has to offer. Thus, there is an inconsistency in the transhumanists claims that they want to benefit all humanity but at the same time divert resources to fringe enhancement technology research while forgoing therapeutic medical treatment that is available now for many underprivileged. As such, transhumanists claims of benevolence, altruism, and autonomy seem hollow.[87]

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[84] Cahill, *Theological Bioethics*, 218.

[85] As Ted Peters notes, "only the wealthy sectors of the modern economy are sufficiently flushed with money to afford to invest in GNR." (GNR means Genetics, Nano-technology, and Robotics.) Because of this fact, what the donors want, the donors get – in this case, research into fringe technologies. Peters, "Progress and Provolution," 71.

[86] Ibid.

[87] To be fair to enhancement researchers, many are just providing the research their financial backers want. Likewise, the potential for valuable research for all humanity will be found by these researchers. This critique is a general claim against our priorities as a society. That is, people give a lot of money to some fringe science project, but neglect real tangible needs facing millions every day. As such, this criticism is not limited to enhancement technologies alone, but can be applied to many technologies currently enjoyed by the world's most privileged people. Do we need so much funding for research into makeup, sexual performance pills, or entertainment?

Further, many critics of transhumanism believe enhancement technology makes some problematic assumptions about human nature. Transhumanists make several general assumptions about human anthropology. Mostly, this revolves around the notion that humans are merely biochemical machines. That is, humans can be reduced merely to their biological parts.[88] If "humans" are nothing but a collection of biochemical reactions, then it makes no sense to talk of some static "nature." For the transhumanist, "human nature" is at best a heuristic of language – it does not really exist. Modern humans are merely the current end product of a process that did not have them in mind and will discard them at some point in the future. This ever changing process diminishes the idea that humans could be the result of a divine act of creation.[89] For the average transhumanist the "I" is an illusion created by a brain trying to make sense of its surroundings. There is no real self. Just "a symbolic and emotional system that is constructed to reflect a judiciously compressed and distorted version of the actual mind of which it's a part. None of us is really our selves."[90] This view – that humans are best understood in reductionist's terms – has garnered the most resistance by transhumanism's critics. Any position that says our common experience of our selves is wrong – such as

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[88] Ibid., 75. This is something of an inconsistency with Buchanan. He laments the physicalist reductionism of humanity on one hand (cf., Ibid., 43), but embraces it in the other (cf., his discussion on evolution, Ibid., 155—158). Likewise, James Hughes takes contemporary neuroscience to mean that a "substantial self" is an illusion – that is, humans are merely their biochemical parts. James Hughes, "Transhumanism and Personal Identity," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 228—229.

[89] Grumett, "Transformation and the End of Enhancement," 43.

[90] Ben Goertzel, "Artificial General Intelligence and the Future of Humanity," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 130—131.

the idea that the "self" is simply an illusion – carries an enormous burden of proof. For it

seems obvious "Our bodies are ourselves: yet we are also more than our bodies."[91] We

assume our "self" is real, not illusory. That our language, "me", "us", "we", "them", "I",

and so on apply to real people, real minds, real selves. Some Feminist scholars have taken

issue with predominate assumptions in transhumanist literature that assume a masculine,

western, modern, capitalistic perspective.[92] From their perspective the problem with

transhumanism is that it offers too simple a construction of the human person – it does

not account for the "complex, and context-dependent, approaches to the 'biological'

world."[93] Thus, even while enhancement technologies could contribute to alternative

understandings of the human body, proponents of enhancement technology are often

stuck within their own social location and make judgements about the human body from

that position.[94]

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[91] Lynda Birke, "Biological Sciences," in *Blackwell Companions to Philosophy: A Companion to Feminist Philosophy*, ed. by Alison M. Jaggar and Iris Marion Young (Malden, MA: Blackwell Pub., 1998), 194.

[92] For example, feminist author Lynda Birke criticizes any approach that fully embraces "the logical positivism that characterizes scientific thinking" and neglects "the social situatedness of the knower and on the theory-laden nature of scientific inquiry." Birke, "Biological Sciences," 195.

[93] Ibid. Bioethicist Amy Michelle DeBaets concurs that humans cannot be simply reduced to neurological information patterns in the brain. "We humans are not merely the sums of our brains; we are embodied beings whose experience of the world is heavily dependent upon the types of bodies that we have." Amy Michelle DeBaets, "Rapture of the Geeks: Singularitariansim, Feminism, and Yearning for Transcendence," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Santa Barbara, CA: Praeger, 2015), 184. For thinkers like DeBaets, humans are simply not reducible to functioning brains or wills. Rather, humans are fully embodied creatures.[93] Critiquing Kurzweil directly, DeBaets remarks that Kurzweil's vision of a future singularity is based in his wealthy, privileged status, as a white Western man – and his visions of an "ideal" future are reflective of his social situation. Ibid., 185—191.

[94] One issue that should be addressed is how enhancement technology reinforces or is challenged by a socially constructed view of the body. Feminist philosopher Judith Butler remarks that one's gender is the product of one's performance (i.e., habits) over time, but what people perform is a direct result of the actions they think are acceptable per their cultural and social conditioning. Thus, deep identity producing issues such as one's gender are the products of what one's society thinks is "normal." See her *Bodies That Matter: On the Discursive Limits of 'Sex'"* (New York: Routledge, 1993), 1—16. Feminist philosophers Judith Lorber and Patricia Yancey Martin concur with Butler's observations. They remark,

Likewise, some critics fear that enhancement technology may endanger currently

possessed "goods." There are three goods often mentioned as being endangered by

transhumanism: the natural body, human dignity, and religion. The displacement of the

natural body – even in light of many transhumanists aspirations to enhance physical

sensation – is desirable only within a particular masculine, western, and privileged

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"people whose bodies comply with valued conventions are admired, praised, and held up to others as ideals to be emulated. In short, by judging, rewarding, and punishing people of different body sizes, shapes, weights, and musculature, members of a social group persuade and coerce each other to construct socially acceptable – and similar-looking – bodies." Lorder and Martin, "The Socially Constructed Body: Insights From Feminist Theory," in *Illuminating Social Life: Classical and Contemporary Theory Revisited*, ed. by Peter Kivisto, 4th ed. (Los Angeles: Pine Forge Press, 2008): 230.

This is important for our purposes because *if* it is the case that how we view the body (and what is "normal" for the body) is a product of one's culture and not *just* a biological reality, *then* it follows that enhancement technologies engineered to reinforce certain notions of what the body should *be* (whether male or female; size; shape; etc.) is to a significant degree determined by one's society and will reflect that society's values (for good or for ill). Thus, it is possible that some enhancement projects reinforce a view of the human person that prioritizes certain "types" of people over others, thus reinforcing current power structures. For example, Ray Kurzweil has an alternate female persona (Ramona) that he adopts sometimes online. One could say that this just shows how blurry the line is between males and females. However, the way Kurzweil portrays Ramona reinforces Western Masculine stereotypes of what the "perfect" woman would look like. Feminist Theologian Amy Michelle DeBaets takes exception to Kurzweil's presumptiveness as a middle-class male to: 1) know what it is like to actually *be* a woman; and 2) to reinforce a particular stereotype of women that many feminist authors are trying to eliminate. DeBaets says it is fine if Kurzweil wants to *pretend* to be a woman in virtual space, but she states he clearly does not know what it is like to *be a real woman*. For Kurzweil's descriptions of womanhood reinforce western masculine notions of perfect femininity. DeBaets, "Rapture of the Geeks," 185. This is a significant shortcoming as far as DeBaets is concerned. What can be applied specifically to Kurzweil, can be applied to the transhumanist movement in general.

One does not have to accept only this vision of the enhancement project as a reinforcement of sexual and gendered prejudices of the body. Some enhancements may actually serve to subvert and possibly eliminate such prejudices. For example, coupling certain cybernetic notions of what the body should be like, with a transference of neural activity to those bodies, and having undergone moral enhancement, (theoretically) it would be possible that future cybernetic bodies are androgynous (unless chosen otherwise) and thus people would be able to experience the world through these cybernetic interfaces (sometimes as male and othertimes as female – if these terms even still retain meaning at that point). Likewise, with the (presumed) judgements made via moral enhancement, whether one chooses a male, female, or androgynous body, there would be no negative moral judgment made toward that person. Of course, even under this conception the choice of which bodies to inhabit (or avoid altogether) is likewise the result of the communal and social judgements of our future and enhanced selves. As such, the issue of *whether* we will ever exculpate ourselves from having a socially constructed view of the body, the answer appears to be "no." However, given the current trends in enhancement technology, the day is coming when we may be able to pick how that body looks and responds to environmental and social elements.

status.[95] Similarly, others fear that transhumanism will introduce the loss of human dignity. There is a fear that applying technology to our inner-selves will dehumanize us and cut us off "from our otherwise spontaneous joy at being natural creatures."[96] Celia Deane-Drummond is concerned that people who choose to forgo enhancement will be deemed irresponsible by the enhanced class. The pressure to sacrifice one's values for the sake of cyberculture would be immense.[97] Critics are anxious that the push to make people "better" at nearly all-costs will actually cost us ourselves. It is a devil's bargain.

Finally, religion too becomes precarious in a society based strictly on philosophical naturalism and empiricism. Indeed, many transhumanists see religion as "palliative for people faced with death. Religion brings an acceptance of death, and comfort with that acceptance."[98] Since many transhumanists hope to alleviate death through technological might, religion is an obstacle for motivating people to pursue life-extension

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[95] As such, some feminist philosophers and theologians cast a skeptical eye to transhumanism's promises. For example, Alison Adam says transhumanism's masculine cyberculture which attempts to transcend the body "holds little obvious appeal for feminists." Adam, "Feminist AI Projects and Cyberfutures," 282. For Adam, there are some real goods associated with the body that many transhumanists dismiss as a relic of the past. For instance, per transhumanist predictions, shopping in a retail store is a thing of the past – online shopping is the future. But for Adam, this "denies the complex physical and emotional pleasures of bargain hunting [or] the serendipitous find." Ibid. One could easily add the comradery of shopping with friends, trying on clothes to see if they fit, handling various gadgets to judge weight, etc. As simple as this pleasure is, it is something she does not wish to forgo – yet its disappearance is all but guaranteed in the transhumanist vision of the future. Her humble plea is that "some of us may not wish to lose the pleasures of the meat [i.e., body]." Ibid. Adam wants to retain the complex bodily emotions and experiences that transhumanism would dismiss.

[96] Ibid., 76—77. Leading transhumanist critic Francis Fukuyama is confident that enhancement technologies will eventually sacrifice human dignity. Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution* (New York: Picador, 2003), 173.

[97] The dignity of the unenhanced person may not be "violated" *per se*, but it would certainly be diminished as the burden to yield to technique would increase. Indeed, this pressure raises the specter of eugenics, and it hangs over the transhumanist agenda like a dark cloud. The idea of a "shared human condition" – which Catholic social teaching is hinged – would be void in a transhumanist future, since there would be *no* shared human condition. Dean-Drummond, "Taking Leave of the Animal?," 124.

[98] Peters, "Progress and Provolution," 73.

enhancements. For there is no need to pursue technological immortality if religious immortality is an easier route. Transhumanism tends to dismiss religious belief as outmoded, anti-progress, and too conservative – religion is a roadblock to enhancement.[99]

Transhumanists see religion as an "atavistic commitment to the past . . . [resisting] anything new."[100] But theologians are not resistant to change *per se*, but rather are resistant to "the naïveté on the part of those who put their faith in progress, especially technological progress."[101] The problem is human hubris in thinking we know what is best. Our intentions are often good, but the unintended consequences can be disastrous. We have a naïve "sense of control or false sense of dominance that technological victories over nature might elicit."[102] In a very real sense, we do not control our technologies – they control us. And yet, we operate as though we are in total control of our respective destinies.

1.4 Assumptions of the Dissertation

This project operates from a Christian perspective, but it is not a biblical study interacting with transhumanism. Rather, this project will act on the assumption that the Bible has authority for Christians. Likewise, my starting points can be identified as having a basis in the Bible. However, it is not necessary for someone to read this project and carry the same assumptions. The argument should be able to stand on its own. As such, while this is not a biblical study into transhumanism, the biblical basis for my

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[99] Ibid., 72.

[100] Ibid., 72.

[101] Ibid.

[102] Ibid., 78.

religious convictions will appear mostly in this section and only periodically in the following chapters.

My perspective is that of an Evangelical Protestant who is greatly influenced by the Catholic intellectual tradition – especially by the thought of Thomas Aquinas. As such, the use of the term "Christian" in this dissertation applies to anyone who identifies with the beliefs and practices of the three great branches of the Christian tradition: Eastern Orthodox, Roman Catholic, and Protestant.[103] While this project will try to represent what C. S. Lewis called a "mere Christianity,"[104] it is recognized that not all Christians fall into neat categories, nor will all Christians agree with my assumptions. Thus, what follows is a brief itemization of what I understand as common to almost all (traditional) Christians.[105]

First, there is one God who exists eternally (1 Tim. 1:17) in a triune nature – Father, Son, and Holy Ghost (Matt. 28:19; 2 Cor. 13:14). This God is omniscient (Ps. 139), omnipotent (Ps. 115:3), omnibenevolent (1 John 4:8), omnipresent (Heb. 4:13), immaterial (John 4:24), immutable (Mal. 3:6), and self-existing (John 5:26). This God is

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[103] While I will attempt to represent a position compatible with all three traditions, a note needs to be said about their differences. Most of the differences revolve around how groups view the authority of the church magisterium. Catholics have historically held the Pope and cardinals as representative of the Christian faith and are generally accepted as authoritative on matters of life and faith. Eastern Orthodox, likewise, looks to Bishops as authoritative in the Church, but rejected the Catholic notion that the Pope is to supersede regional Bishops in authority. Further, Protestants (typically) reject the Catholic magisterium as being representative of all Christians for faith and practice. For Protestants, there is a stress on individual righteousness before God, and one's own personal relationship with God through Christ. This means that Christians need no other mediator to God other than Christ. In any case, these differences should not really come "into play" for this project.

[104] C. S. Lewis, *Mere Christianity* (1943; repr., New York: Touchstone, 1996).

[105] Many of the elements that follow should be recognizable to anyone who is familiar with the "great" creeds of Christendom: Apostolic, Nicene, Chalcedonian, and Athanasian. See Philip Schaff, ed. *The History of the Creeds*, vol. 1 of *The Creeds of Christendom: With a History and Critical Notes* (1931; repr., Grand Rapids, MI: Baker Books, 1983).

distinct from its creation (Gen. 1:1), and anything that does not have the principle of existence in itself, owes its existence (ultimately) to God (Ex. 3:14; Col. 1:15-17).

Further, the second person of the Godhead became incarnate in the Jewish peasant, Jesus of Nazareth (John 1:1, 14). Jesus lived an impeccable life (Heb. 4:15), preached the arrival of God's Kingdom (Mark 1:15), performed miracles (Mark 1:34), and disrupted local political and religious institutions (Mark 11:15-19). For causing these disruptions He was thus crucified under Pontius Pilate the day before the Jewish Passover (Luke 23). On the following Sunday he was resurrected and began appearing to His disciples and a few skeptics over a period of forty days (Luke 24; 1 Cor. 15:3-8). After forty days, Jesus ascended into the heavens with the promise of returning at some point in the future (Acts 1:9-11).

Third, Jesus' crucifixion somehow satisfies the "sin debt" humans owe to God (Heb. 9:24-28). Humans are naturally sinful (Rom. 2:9-20), meaning we are selfish, self-centered, and we often neglect God's direction to attend to God Himself, fellow man, and creation. Believers in Jesus are "covered" by Jesus' death and their sins are not accountable to them in the final judgment (Rom. 5:6-11). Jesus' resurrection, however, shows His mastery over death (1 Cor. 15:26-28) and the promise of new life to those that believe in Him (1 Cor. 15:57). All humans will be resurrected into new bodies (1 Cor. 15:51-52; Rev. 20) – some to blessedness, others to punishment.

Fourth, humans are made in God's image (Gen. 9:6). We are inspirited bodies; "dust that breathes"106 (Gen. 2:7); body and soul (1 Thess. 5:23). We have both an inner

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106 William Schweiker, *Dust that Breathes: Christian Faith and the New Humanisms* (Malden, MA: Wiley-Blackwell Pub., 2010).

and outer life – spiritual and physical. Our spiritual life is nourished by worshipping God, participating in various sacraments, prayer, and service to others. Those who trust in Christ are called to live holy lives. There are other religious assumptions as well, but for the purposes of this project these should suffice.

Just as there are religious assumptions, there are also a few philosophical assumptions. This project will defend those philosophical assumptions at the appropriate time. For example, it is assumed that humans are a body and soul unity. That is, before even engaging in arguments about human nature, I have already adopted a position on this issue. However, it is recognized that this position must be argued for, not simply presupposed. *What* humans "are" is a significant question, and one that is crucial to the thesis of this project. Hence, merely assuming a main point would be inadequate for anyone skeptical of the project.

Another assumption is that technology is important, but it is not inevitably progressive. That is, not all technology leads to good. Technology is neutral and may be used for good or bad. It just so happens that some technologies are capable of magnifying good or bad effects. Computers for example can be used to help people (as in the case of medical testing, academic research, and data collection) or it can be used to harm people (cyber-bullying, falsifying information, soliciting immoral activity, etc.). Are computers good or bad? The answer, of course, is *neither*. But what is true of computers is true of almost all technology.[107]

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[107] Transhumanist proponent Mark Walker says something similar in what he calls the "dual use" of technology. In the same way that a particular technology may be coopted for some other (unintended) use, so too can a particular technology be coopted for good or bad ends. Walker, "Ship of Fools," 101.

One last assumption to be addressed is the issue of Darwinian evolution. For the purposes of this project I will assume standard evolutionary theory. I recognize that within certain Christian circles this is unwarranted maneuver. However, this project is not dedicated to either defending or attacking biological evolution. Rather, it is addressing a particular issue (i.e., human enhancement) and how Christians can determine to accept or reject different enhancements. Indeed, for Allen Buchanan, evolution is the primary driver of our moral development.[108] As such, I will attempt to meet the challenge "head on," rather than proposing a completely different set of parameters to carry the discussion.

Likewise, under the assumption that humans have, and are, evolved the question of whether there even *is* a human nature takes on a different tone than if humans are specially created. For under a strict "creationist" viewpoint, humans have an essential nature that is given directly by God and is incapable of changing. Christians who accept evolutionary theory have a couple of options at their disposal. First, many Christians have conceded that the physical body evolved over time, but maintain that God creates a distinct soul for each person (usually at conception). But this maneuver seems to run into the problem of being an arbitrary addition. For it attempts to make a distinction when no clear line seems possible. Put differently, if humans evolved, at what point did our ancestors gain a soul? There seems to be too much continuity to allow for an arbitrary distinction.[109] A second option, following Nancy Murphy is to maintain that humans do

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[108] Buchanan, *Beyond Humanity?*, 75.

[109] Nancy Murphy, *Bodies and Souls, or Spirited Bodies?* (New York: Cambridge University Press, 2006), 48—49. Theologian Terrence Nichols acknowledges this problem and offers an intriguing alternative explanation. He says that the issue is not the creation of the soul *per se*, but rather the relationship God has with the soul that "raises the soul" to the level of a human being in God's image. Under this conception, there is a continuous biological line from our earliest ancestors to today, but the

not need souls to be thought "different" from other mammals. Indeed, she takes it that our humble background in evolutionary development is "deeply biblical."[110] Evolutionary theory, thus, challenges traditional essentialism (though, interestingly, does not do away with it necessarily), and within the enhancement debate it challenges any anti-enhancement argument based on some essential nature. Therefore, part of this project is dedicated to exploring if anything identifiable as "human" can be found *even in light of* an evolutionary backdrop.

1.5 Format of the Dissertation

1.5.1 Thesis and Argument of the Dissertation

This project seeks to provide a paradigm for Christian theologians to talk about human enhancement in light of the transhumanist goals.[111] In what follows I will argue that Christians can allow for forms of "moderate enhancement" but should resist engaging in forms of "radical enhancement". The reason for this distinction, how it is made, and why the distinction matters has been discussed somewhat above and will continue to be revealed as the project proceeds. Suffice to say at this point, that the transhumanist agenda and enhancement technologies in their "radical" form is at fundamental odds with Christian theology in ways that "moderate" enhancement is not.

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souls of only the most recent ancestors – Nichols suggests Cro-Magnon as the starting point – had a nascent relationship with God. Nichols reasoning here is that it is at this stage in human evolutionary history that our ancestors began to observe burial practices due to an apparent belief in an afterlife. See Terrence L. Nichols, *The Sacred Cosmos: Christian Faith and the Challenge of Naturalism* (Grand Rapids, MI: Brazos Press, 2003), 140, 176—177.

[110] Ibid., 55.

[111] Again, please note that "enhancement" should not be considered synonymous with "transhumanism." All transhumanists are for enhancement, but not all those for enhancement could be labeled transhumanists. As should become clear, transhumanism is a general philosophical outlook in regards to the use of enhancement technologies.

This project will show that Christians can embrace many forms of enhancement technology without having to sacrifice significant theological commitments. "Acceptable" forms of enhancement (i.e., moderate) are contrasted with "unacceptable" forms of enhancement (i.e., radical). Embracing radical enhancement would require considerable theological abandonment, for radical-enhancement makes assumptions about human persons at odds with traditional Christian notions. Likewise, this project will offer a way to navigate the spectrum of enhancement technologies. It will propose a hermeneutic that can be used by Christians (or if slightly modified by anyone else) who want to think through the implications of enhancement technologies. This project's thesis therefore can be stated as such: Based in a philosophical ensouled understanding of human agency and a robust theological understanding of the *imago Dei*, Christians can allow and endorse modes of "moderate enhancement," but should avoid promoting, participating, and probably should encourage the prohibition of most forms of "radical enhancement."

1.5.2 Methodology

Methodologically, this project will be mainly dialectical. It will assess arguments and counter-arguments on various related topics in hopes that an appropriate resolution can be reached. The reason for this approach is two-fold: first, it is hoped that it will reduce the possibility of error in thought. Faulty arguments should not knowingly be held. Secondly, proper conclusions are often gray – not black-and-white. True answers are rarely "clear cut." While the central path is often difficult to walk – as it "takes fire" from both sides – it more often than not avoids the excesses and errors of counterbalancing rivals. This is a decidedly Aristotelian approach to the topic. In the

same way Aristotle saw a golden mean for ethical action, the principle of finding a

middle path in difficult topics characterizes the whole of Aristotle's thought. For

example, Aristotle's hylomorphism is a half-way point between monism and realism –

neither a denial of essences, nor a full acceptance of their separated existence. Likewise,

he saw humans as neither gods nor beasts, but something in the middle. This theme of

navigating extremes is a hallmark of Aristotle, and it is a quality this project attempts to

emulate.

Further, this approach invites conversation from non-theologians. While this

project will take a primarily theological stance, it will not be limited to such a narrow

discussion. I will attempt to think about this topic "Christianly," but will not restrict my

interlocutors to only Christian sources. While I am trying to understand the implications

of this topic for Christian theology, I do not want to limit the implications to Christian

theology alone. The transhumanist agenda will affect all of humanity, not just Christians.

This approach mirrors that which William Schweiker calls "multidimensional

thinking."[112] In multidimensional thinking a range of disciplinary fields are employed to

answer a basic question. The fear is that by sticking to one "autonomous" discipline, the

answer(s) provided will be too limiting to meet our needs as multidimensional beings. As

Schweiker notes, "the burden placed on any intellectual practice aimed at knowledge is to

specify those points at which it is linked to other disciplines given shared interests.

Knowledge is a complex, reflexive network; it is a space of warranted intelligibility or

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[112] William Schweiker, "On Religious Ethics," in *The Blackwell Companion to Religious Ethics*, ed. by William Schweiker (Malden, MA: Blackwell Pub., 2005), 4.

reasonability."[113] Essentially, we need a broad scope to determine the legitimacy of an answer to a question. The narrow focus that comes from an autonomous approach may yield important information but will nevertheless be ultimately incomplete. Hence, there is the need for interdisciplinary studies which look for "lateral links" upon reflection and communication of shared ideas.[114]

Theologically this project is an act of reflection. It will engage with the Christian past and present in hopes of charting an appropriate course for the future. Christianity, as an historically rooted and conditioned tradition, is not static – it is alive and evolving. The Christian faith, while maintaining a traditional stability, is at the same time dynamic and ever developing.[115] Theological judgments are not simply repetition of past conclusions, rather they are informed by the past but made alive as they are engaged with present realities. Following Alistair McFadyen's observation, theology is "expected to illuminate secular discourses, drawing them into relation to a theological framework: to the attestation of the triune God's relation to, presence and action in the world."[116] Theological reflection is to be in conversation with secular disciplines, for if all "truth" is God's truth, then wherever truth is found, so too is God. McFadyen succinctly states it this way, "the theological task is to discern and then show to secular discourse its own

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[113] Ibid.

[114] Ibid.

[115] Alistair McFadyen, *Bound to Sin: Abuse, Holocaust and the Christian Doctrine of Sin* (New York: Cambridge University Press, 2000), 51.

[116] Ibid., 52.

inner truth. If truth is one in God and God is related to the whole of reality, then nothing that is true about the world can be unrelated to God."[117]

1.5.3 Forthcoming Chapters

Chapter 2 takes up two competing views of human nature. It will contrast physicalist notions of human nature against those of substance dualists. The physicalist position is often thought to be a purely "scientific" view of human nature. This position is the primary transhumanist view of humanity. That is, that humans are merely evolved animals. This mere physicalist approach to human nature is almost universally adhered to by transhumanists and most rely on standard philosophers and biologists as sufficient grounds for accepting this view of humanity. This will be contrasted with substance dualism in which humans are thought to be souls *with* a body. This approach not only acknowledges that there is an immaterial aspect to humans, but this immaterial aspect actually is the most important thing about us. For it is within the soul that our identity, emotions, memories, and intellect are found. After elaborating both of these views, this chapter will offer a brief evaluation and show the inadequacies of both viewpoints.

Chapter 3 proceeds in three parts. The first will examine the historical roots of ensoulment as established by Aristotle and Aquinas. The second part looks at the philosophical account of human nature. Looking at contemporary topics on the philosophy of mind will provide a foundation for discussing ensoulment. Indeed, this chapter argues that this approach best establishes our daily experience of our own lives. The third section will then consider two theological notions important to the discussion

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[117] Ibid., 54.

on human nature – the *imago Dei* and being loved by God. This section will look at the theological basis for teaching humans are in a special relationship to God and creation. This chapter will end with a discussion on what is thought to be the best understanding of human nature in considering the scientific, philosophical, and theological evidence.

Chapter 4 takes a moral turn and compares the ethical notion of "personhood" versus "human nature." Transhumanists tend to avoid the idea of "human nature" since most do not think the term has any merit (per, their physicalist notions covered in chapter 2). Rather, they rely on concepts of "personhood" to develop ethical positions on what is or is not appropriate in relation to some enhancement technology. This chapter has two main sections. The first presents the common transhumanist notion that "personhood" is the only morally relevant criteria for ethics. Usually this is based in some type of capacity that is able to be performed by the subject. The second section will argue that "personhood" is inadequate as the sole basis for an ethical system – "personhood" is simply too limiting to account for all situations. Thus, a robust form of "human nature" is needed, but even human nature has its limitations. This chapter will conclude that "human nature" *should* play a role in determining moral issues, for "what" something is greatly determines "what" it is due. What is needed, however, is a robust view that combines aspects of both "personhood" and "human nature" to arrive at an acceptable moral vocabulary.

Chapter 5 is thus an attempt at establishing that moral vocabulary left by the inadequacies of "personhood" and "human nature." This chapter will argue for the sufficiency of "human agency" as the proper moral grounding for discussing enhancement technologies. Indeed, this chapter will argue that an Agency of Relational

Responsibility (*ARR*) is the most appropriate moral language for our discussions about enhancement technologies. *ARR* acknowledges a thick understanding of the concept "good" coupled with the realization that "good" is apprehended not in isolation, but in community with others. Likewise, *ARR* takes *relationality* and *responsibility* as essential contributions for understanding the lived human experience. As *relational*, humans have a view of self, society, and recognize specific power relations (both justified and unjustified). As *responsible*, humans derive their sense of justice from a community which is interpreted through their individually lived experience. This impacts both what is meant by freedom and limitation on human action. Human actions are ultimately interpreted by the context of that action and judgements of good or bad are based on the assumption of that context. As such, given the values that have developed within a given community, certain actions are quite literally impossible for the person to perform freely. This, of course, would be a type of limitation to their freedom of action as well as a limitation on what others can expect and demand of any given human agent. This chapter will conclude that in light of the previous chapters, human persons have an inviolable nature which is respected by *ARR* – this conclusion should guide future action and deliberation of consequences for future actions.

With these previous issues established, chapter 6 examines the difference between "moderate" and "radical" enhancement. This chapter will look largely to the work of Nicholas Agar as the primary expositor of this position. Following Allen Buchanan, it will show why a true "pros" and "cons" approach to enhancement technology is actually wrongheaded. Likewise, it will show why being "pro" or "anti" enhancement is actually impossible in our given societal context. This chapter will show what makes any given

enhancement "radical" and why it is important to make the designation. Further, this chapter will introduce a way to consider thinking about enhancement technologies in relation to the previous issues discussed. That is, it presents a theological hermeneutic for considering enhancement technologies.

Chapter 7 is the culmination of preceding work. It is here were it will be reiterated why Christians can accept "moderate enhancement" but not "radical enhancement." Likewise, this chapter will delineate additional problems Christian theology will need to address should we actually obtain "radical enhancement." The ultimate plea of the chapter is not novel, but it seems to be the motivating factor for much of the enhancement agenda – what proponents of radical-enhancement seek, Christians offer in the hope of resurrection.

Chapter 2

Anthropological Alternatives: Physicalism and Substance Dualism

Our nature no doubt contributes something important to the *general shape* of morality and of the good life for us. It is quite another matter to think that an appeal to human nature can tell us whether we should undertake this or that enhancement or to avoid enhancements altogether.
— Allen Buchanan, *Beyond Humanity*, 7

If technology is replacing human characteristics then despite the urgency it imposes – at stake is nothing less than the future of human nature and activity – it makes the ethical task remarkably clear. The task is (1) to determine which characteristics cannot be replaced without destroying human nature itself; and (2) to establish why human nature, so understood, should not be destroyed. It is, in short, to come up with a normative conception of the human.
— Gerald P. McKenny, "Technology", 465

2.1 Introduction

Gilbert Meileander remarks that bioethics has lost its notion of the soul. That is, bioethics "has to some considerable degree turned away from exploration of the most fundamental questions about who we are and should be."[1] He continues to note that all methods and theories operate from some background beliefs (i.e., worldview). It is, therefore, incumbent upon us to examine those background beliefs that led to the rejection of a belief in the soul. Likewise, it needs to be explored if there are some reasons that commend themselves to thinking the soul is a real thing.

But, if there is anything such as a soul, then this would be part of the nature of human beings, which is also a highly disputed concept. Given this controversy, it seems nearly impossible to state when human nature has been violated, whether through inappropriate actions or illicit use of technology. Not only do those with different

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[1] Gilbert Meileander, *Body, Soul, and Bioethics* (Notre Dame, IN: University of Notre Dame Press, 1995), 2.

worldviews disagree over what it means to be human, but those with the same worldview do not have a singular notion of what it means to be human.2 Lisa Sowle Cahill remarks that religious traditions do not offer any "absolute definitions" of human nature, hence even religions cannot "specify clearly what is and is not a transgression, in the sense of a breach or change of the 'the natural' that upsets divinely ordained limits."3

How then shall we proceed? On one hand, enhancement technology wants to make humans better, but on the other hand, there is no agreement on what it means to be human – and thus, what human characteristics can or should be improved.4 Gerald McKenny rightly notes that the enhancement debate is ultimately about determining a "normative conception of human nature."5 First, there is the need to identify which, if any, human characteristics can be enhanced without destroying the human. The second, task is show why humans are valuable. But both of these tasks need a robust view of human nature. Yet, not all views of human nature are compatible. For the philosophical materialist, it is the body alone that is human. Hence, any understanding of humanity not

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2 This does not mean, however, that consideration of worldviews is unimportant. Indeed, it is necessary given the impact one's worldview has on their perception of humanity. As Terrence Nichols agrees, "Our concepts about human origins, nature, and destiny are critical for our conceptions of who we are and what we should do in this life. . . . If we see ourselves as mere collections of molecules, the accidental spin-offs of a random process, with no intrinsic meaning or purpose in life, and no hope of afterlife, a negative self-concept is likely." Terrence L. Nichols, *The Sacred Cosmos: Christian Faith and the Challenge of Naturalism* (Grand Rapids, MI: Brazos Press, 2003), 125.

3 Lisa Sowle Cahill, *Theological Bioethics: Participation, Justice, Change* (Washington, D.C.: Georgetown University Press, 2005), 222.

4 Indeed, there is a real sense that enhancement technologies require a reevaluation of what it means to be human. "The emerging revolution in biotechnology challenges us to redefine human nature for the sake of technological development. Advances in genetic engineering, pre-implantation genetic diagnosis, cybernetics, robotics, and nanotechnology depend in large measure on our willingness as a culture to recast what it means to be human" C. Ben Mitchell, "The Audacity of the *Imago Dei*: The Legacy and Uncertain Future of Human Dignity," in *Imago Dei: Human Dignity in Ecumenical Perspective* (Washington, DC: The Catholic University Press of America, 2013), 79—80.

5 Gerald P. McKenny, "Technology," in *The Blackwell Companion to Religious Ethics*, ed. by William Schweiker (Malden, MA: Blackwell Pub., 2005), 465.

ultimately rooted in that material basis will be considered an inadequate view of humans. On the other hand, a number of philosophers and theologians will point out that there are aspects to humans that simply cannot be reduced to a materialistic basis. And if this is so, then any mere physicalist view of human nature would by necessity be inadequate as a *complete* understanding of what humans are.

This chapter examines two competing views of human nature. The first approach is that of the philosophical naturalist – often called just materialism or physicalism. This position states that humans are ultimately reducible to their bio-mechanical parts – there is no spirit, no soul, and no (immaterial) mind. Darwinian evolution fully explains human nature as exemplified in the thought of Charles Darwin and E. O. Wilson. This leads to two philosophical conceptions for a physicalist basis for mind: eliminativism and functionalism. Daniel Dennett and Jerry Fodor provide the relevant insight for these ideas.

The second part of the chapter examines the case for substance dualism. This position holds that humans are a soul with a body. That is, aspects of humanity are best explained by postulating the existence of an immaterial mind / soul that is somehow connected to the body. While this position has fallen on hard times in recent decades, it still enjoys support from some notable personalities. A brief history of this position as expounded by Plato, St. Augustine, and Descartes will be followed by its modern formulation by Richard Swinburne, and J. P. Moreland and Scott Rae.

The last section sums up these two positions by briefly evaluating the primary criticisms of both physicalism and substance dualism. It will be shown that physicalism powerfully provides empirical evidence for a biological basis of personality and identity,

but does so at the expense of basic human experience. That is, if physicalism is correct then much of our direct (and seemingly undeniable) experience of the world is merely illusory. Likewise, substance dualism provides a satisfying account of personal experience in the world, but it does so with two major drawbacks: first, it has difficulty (historically speaking) in accounting for the interaction between the soul and the body; and second, it seems difficult (if not impossible) for a third party to identify anyone. That is, the first problem is explaining how both the soul / mind moves the body to interact with the world and how the body affects the soul / mind, and the second problem is trusting that the person with whom we are speaking *really is* that person and not some other soul / mind.

2.2 Physicalism

Philosophical naturalism and materialism are the dominant positions among professional philosophers and scientists as well as transhumanists.[6] For these thinkers, souls (if there is such a thing) are "in" bodies only metaphorically – immaterial souls simply do not and (probably) cannot exist.[7] Humans are nothing more than bodies and brains.[8] The view that there is only a material reality goes by a couple of different names: philosophical materialism, materialism, naturalism, philosophical naturalism, and

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[6] Charles T. Rubin remarks that physicalists (i.e., scientific materialists) view humans as "sophisticated machines." And as such, transitioning humans into a transhuman or posthuman future is "no big deal." Charles T. Rubin, *Eclipse of Man: Human Extinction and the Meaning of Progress* (New York: New Atlantis Books, 2014), 93.

[7] And if "souls" really do exist in this view, then they must be viewed epiphenomenally and thus would be dependent on the physical body.

[8] Ric Machuga, *In Defense of the Soul: What it Means to be Human* (Grand Rapids, MI: Brazos Press, 2002), 19.

physicalism. For the purposes of this project we will use the term "physicalism" to describe the view that there is no supernatural reality beyond the material universe.

Yet, while physicalism is taken to normally mean that there is no supernatural reality, there is a subset of Christian Physicalists. This group of scientifically minded theologians accept the normal scientific thesis of the universe (and all that is in it) as operating according to normal physical / material laws, but that nevertheless there remains a God outside of the universe.[9] The impact of what is in the universe and how the universe should be understood, however, is almost indistinguishable from their secular counterparts. For example, Nancy Murphy (a prominent Christian Physicalist) maintains that humans are only physical entities, we have no "additional metaphysical element such as a mind or soul or spirit."[10] That is, she accepts the standard physicalist explanation of human beings. We are, according to this position, nothing but a biochemical organism. However, she wants to avoid the reductionism that normally attends this viewpoint. Thus for Murphy, we are "complex physical organisms, imbued with the legacy of thousands of years of culture, and . . . the Breath of God's Spirit; we are *Spirited bodies*."[11] Humans are oriented to the supernatural even though there is no literal "soul" to save. Thus, the resurrection of the body plays a prominent role in Murphy's thought. Nevertheless, when we consider all of those things that have traditionally been thought to evidence a soul –

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[9] The similarity to 18th century deism is apparent. Stated differently, these theologians seem to have taken up the mantle of the 18th century deists, in which God exists but does not really interact with the world. Rather, God created the world and wound it like a clock and just observes it from a distance as it runs its natural course.

[10] Nancy Murphy, *Bodies and Souls, or Spirited Bodies?* (New York: Cambridge University Press, 2006), ix.

[11] Ibid., (emphasis in original).

consciousness, memory, dispositions, etc. – Murphy says are now under the "province of brain studies."[12] For Murphy there is only brain – there is no such thing as what traditionally called "mind." Memories, desires, etc. are a function of the brain.

Murphy accepts the standard biological / scientific understanding of the human person as merely a biological system – a special biological system, but a biological system nonetheless. For her, what has traditionally been thought of as evidence of mind, is now under the province of neuroscience. Thus, she follows the secular notions of what it means to be human, and what it means to *be* alive. Now, when biologists ask what are the requirements for "life" the answer is: "self-maintenance, growth, and reproduction."[13] Indeed, mechanistically inclined physicalists are confident in the ability of the physical sciences to discover how the brain works so that, in theory, a computer could be created that expresses what we consider "mind." What "the uneducated call 'souls' are really nothing but brains, i.e., complex machines."[14] Murphy states the issue well: "*The physicalist thesis is that as we go up the hierarchy of increasingly complex organisms, all of the other capacities once attributed to the soul will also turn out to be products of complex organization, rather than properties of a non-material entity*."[15] Below we will look at the physico-biological bases for humans as well as the physico-psychological

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[12] "Nonetheless, let us consider what characteristics your soul would have to retain for it to be recognizably *you* who gets to heaven. Your consciousness, your memories, your likes and dislikes, perhaps? But, as we have just seen, these are all the province of brain studies." Ibid., 69.

[13] Ibid., 57.

[14] Machuga, *In Defense of the Soul*, 36.

[15] Murphy, *Bodies and Souls, or Spirited Bodies?*, 57 (emphasis in original).

bases for mind. Note well, that these issues are intimately tied and cannot be completely separated.

2.2.1 Humans as Only Physical and Biological Organisms: The Biological Basis for Human Nature

According to Nancy Murphy, there have been three main revolutions within Christian thought in 2000 years. The first was the abandonment of Aristotelian physics in the 17th century. The second was the adoption of Darwinian style evolution of human development. And the third is the current advancement in neuroscience on the nature of human persons – where operations once identified with the soul are now identified with the brain.[16] But it is important to note that the development of modern neuroscience is a direct product of looking at the Darwinian revolution in biological sciences, which is itself the result of the rejection of Aristotelian physics.

The power of the Darwinian thesis, and the favorite argument put forth by physicalists, is that the powers of natural selection guided the "phylogenetic continuity" of nature. Humans are just one of the products of this natural process over millions of years. By favorable reproductive rates and survival of the fittest, humans have climbed the evolutionary scale, but at bottom, we are merely biological creatures. Thus, what our ancestors called "souls" is nothing more than folk psychology.[17] As Murphy puts it: "all of the human capacities once attributed to the mind or soul are now being fruitfully studied as brain processes – or, more accurately, I should say, processes involving the brain, the rest of the nervous system and other bodily systems, all interacting with the

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[16] Ibid., 40.

[17] Machuga, *In Defense of the Soul*, 36.

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socio-cultural world."[18] One understanding of this view of the human is that we are only one of the many animals on the planet, and do not have any special status. The line between humans and animals is blurred the more we look at our biological beginnings.[19]

This section will briefly expound the historical position of this idea as found in Charles Darwin and E. O. Wilson. Afterward we will look at the two most common positions on the nature of mind in academic literature today: eliminativism and functionalism. Eliminativism says that "mind" is simply identifiable with certain brain states, and thus we can do away with any talk of "mind." Functionalism says that a "mind" is present when the biological parts are *functioning* properly. Daniel Dennett is utilized to explain aspects of eliminativism, while Jerry Fodor is used as an exponent of functionalism.

2.2.1.1 Humans are a Product of Evolution – Historical Background: Charles Darwin

Charles Darwin is credited with being the one who formalized a workable theory of evolution for the modern scientific community. Through his travels on the H.M.S. Beagle and observations from the Galapagos Islands, Darwin hypothesized that the variation in different species could be accounted for by environmental, reproductive, and genetic factors. "Guided" by natural selection, the surviving members of a species pass

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[18] Murphy, *Bodies and Souls, or Spirited Bodies?*, 56.

[19] "Biology and evolutionary theory over the last two centuries have simultaneously produced modern organisms as objects of knowledge and reduced the line between humans and animals to a faint trace re-etched in ideological struggle or professional disputes between life and social sciences." Donna J. Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," in *The Gendered Cyborg: A Reader*, ed. by Gill Kirkup, Linda Janes, Kathryn Woodward, and Fiona Hovenden (New York: Routledge, 2000), 52.

their traits on to the next generation.[20] Certain environmental pressures may favor one trait over others. As such, species that can adapt to this pressure survive and pass their genetic material on to the next generation. Those that cannot adapt or do not have the appropriate genetic material will die out and their genetic lineage ceases.[21] This process of modification by descent is slow. It is recorded in geological timescales. Hence, a species' stability is the most deceptive aspect of its existence given how we do not notice its transformation.[22] Sometimes a genetic variation occurs which is so momentous that the advantage gained eventually becomes present throughout the entire species. When enough of these mutations prevail, a new species is introduced. Extrapolated to the entire biosphere, a plausible account for the genetic similarities and differences among all living creatures on earth emerges. Darwin's grand idea of descent with modification gave scientists a way to explain multiple criteria in an elegant system. Natural selection coupled with environmental pressures and genetic reception could (in theory) account for all of the variety of life found on earth. When applied to humans, it follows that humans are just one branch along the evolutionary tree of life.[23]

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[20] Darwin defines natural selection as the "preservation of favourable [*sic*] variations and the rejection of injurious variations." Charles Darwin, *On the Origin of Species*, 1859, reprint, 2nd ed. (Oxford, UK: Oxford University Press, 2008), 102.

[21] Ibid., 103.

[22] Put differently, because species change so slowly, we mistakenly think they have an unchanging essence.

[23] Darwin states "probably all the organic beings which have ever lived on this earth have descended from some one primordial form, into which life was first breathed." Ibid., 303. Humans may have different capacities than other creatures, but in a Darwinian sense of evolution, there is nothing "special" about human beings. We are simply one among the many different types of terrestrial creatures.

This "natural selection" works by the accumulation of infinitesimally small inherited variations which prove to be valuable for survival.[24] And it is important for the purposes of this project since it acts as the basis for the biological understanding of how modern *homo sapiens* have evolved. If it is the case that modern humans are the product of a purposeless biological process, then the transhumanist agenda in wanting to wrest control of human evolution from this blind process has significant merit. Why leave the next stage of human evolution to chance?

2.2.1.2 Humans are a Product of Evolution – Contemporary Grounding: E. O. Wilson

E. O. Wilson, the famous Harvard biologist, has made significant contributions in the way of the evolutionary and biological origins of sociability. Taking his knowledge of evolutionary biology to the human person, Wilson is confident that humans can be understood in completely biological terms – indeed, he thinks biology is the "key" for understanding human nature.[25] He says evolution can account for the origins of humanity (and to a degree determines our future), current scientific studies can fully account for how the human mind and body operate, and a thoroughgoing knowledge of biological sociology can explain how humans are to act. This "consilience" among various branches of human knowledge can provide a robust view of human nature.[26] In Wilson's estimation, biology can tell us what humans are, neuroscience can tell us what and how

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[24] "Natural selection can act only by the preservation and accumulation of infinitesimally small inherited modifications, each profitable to the preserved being." Darwin, *On the Origin of Species*, 74.

[25] Edward O. Wilson, *On Human Nature* (Cambridge, MA: Harvard University Press, 1978), 13.

[26] Edward O. Wilson, *Consilience: The Unity of Knowledge* (New York: Alfred A Knopf, 1998), 81.

humans think, and bio-sociology can tell us how humans should act.[27] Thus, there is no need to introduce any notion of an immaterial "mind" or "soul." Indeed, for Wilson we are on the verge of a complete scientific understanding of all relevant criteria for what makes humans "human."[28] The brain is simply an organ for survival and reproduction – its ability to reason is a side-effect of needing to meet these two primary purposes.[29]

It is not surprising that Wilson, the model biologist, sees biology as the clue to achieving total consilience.[30] Nor is it difficult to see why the scientists and materialists are so confident in what science can do and will prove. The past four hundred years have been one massive success story regarding the advances of science. Once the universe was scrutinized against basic physical laws and supernatural causes were removed from the equation, scientific learning exploded.[31] There seemed to be absolutely nothing that a philosophically materialistic view of science could not answer. "All roads to the truth will

[27] Ibid.

[28] Ibid.

[29] Wilson, *On Human Nature*, 2.

[30] "Everything in this world is organized in terms of a small number of natural laws and that these laws comprise the principles underlying all branches of learning." Amitrajeet Batabyal, "Book Reviews," *Journal of Agricultural and Environmental Ethics* 12 (2000): 223. Wilson states, the "most complex systems known to exist in the universe are biological, and by far the most complex of all biological phenomena is the human mind. If brain and mind are at base biological phenomena, it follows that the biological sciences are essential to achieving coherence among all the branches of learning, from the humanities on down to the physical sciences." Wilson, *Consilience*, 81.

[31] In each area in which supernaturalism held sway initially, but was then challenged by scientific evidence, supernaturalism lost. "During the seventeenth century, through what has become known as the scientific revolution, a mechanistic view of nature gradually displaced a more organic view of nature—at least among the best educated and scientifically inclined. Over the next three centuries, this mechanistic view was to become the dominant view of the world. Left behind were the Aristotelian and Thomistic approach, with its talk of act and potency, form and matter, formal and final cause, as well as the Neoplatonic approach, represented by Bonaventure, and (in a very different way) by the tradition of Renaissance magic, a vitalist view of nature, epitomized in Paracelsus. The 'mechanistic philosophy,' as it was called, entailed major changes in the understanding of matter, of causality, and of God." Terrence L. Nichols, *The Sacred Cosmos: Christian Faith and the Challenge of Naturalism* (Grand Rapids, MI: Brazos Press, 2003), 41.

be scientific."[32] When this long success story is applied to our current topic we can see why scientists are so confident that eventually philosophers and theologians will give-in and admit to the materialistic basis of mind. Philosophers and theologians of mind have assigned so many emergent properties to physical reactions, that it is only a matter of time before the entire mind is shown to have a material basis.

It is believed that the elements for what makes the brain work (neurons, neurotransmitters, etc.) are fairly well known. What is lacking is an understanding of what brings them together to create cognition and consciousness.[33] However long it takes to completely map the brain and all of its connections, Wilson is confident that this will be accomplished. And given the successful history of science, he considers it a forgone conclusion that the physical basis of mind will be mapped through its patterns of neural activity.[34] At bottom, humans are simply a biological species born in an environment conducive to evolutionary advancement.[35] The brain was shaped by epigenetic rules (i.e., hereditary regularities in development) through the millennia.[36] There is nothing immaterial about this process. According to Wilson, what the Enlightenment started and

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[32] Charles Gillispie, "E. O. Wilson's Consilience: A Noble, Unifying Vision, Grandly Expressed," in *Amercian Scientist*, www.americanscientist.org/bookshelf/id.2479,content_true_css_print/bookshelf.aspx (accessed March 27, 2012).

[33] Wilson, *Consilience*, 109.

[34] Ibid., 135. For Wilson the issue is *when* this will happen, not *if*.

[35] "Among paleolithic peoples, the genes imprinted upon individual minds certain pathways for mental development, certain epigenetic rules which, taken together, compose the complex that is human nature." Gillispie, "E. O. Wilson's Consilience: A Noble, Unifying Vision, Grandly Expressed."

[36] Wilson, *Consilience*, 223.

Romanticism continued, but ultimately failed to provide is nearly within our grasp – "the physical basis of mind."37

Given this biological reality there are a number of consequences that follow. That the brain is a machine geared for survival is the most obvious.38 For our purposes, though, we will only examine some areas to which Wilson draws specific attention: objective knowledge; artificial intelligence; and free will. The first fallout from a materialistically based reality is that scientific inquiry can yield objective knowledge.39 The argument runs as such: There is a universe outside our brain and only crazy persons (and some philosophers) doubt its real existence. Our brain synthesizes the sensory inputs imposed on it from this reality and creates concepts – there is no "ghost in the machine" or soul putting this data together. However, this data is subject to perspective distortion. "*The proper task of scientists is to diagnose and correct the misalignment*. . . . No one should suppose that objective truth is impossible to attain . . . . In particular it is too early for scientists, the foot soldiers of epistemology, to yield ground so vital to their

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37 Ibid., 61.

38 Ibid., 96. But also, what we call "meaning" is nothing but the "linkage among neural networks." Likewise, "decision making," is simply "competitive selection among scenarios" looking at "winning scenarios" or "favorable states." What we call "mood" is simply a "persistent form and intensity of emotion." Further, "creativity" is no more than the brain's ability to "generate novel scenarios and settle on the most effective among them." However, if the brain cannot stop producing multiple scenarios, the brain can rightfully be called "insane." Ibid., 115.

39 "Criteria of objective truth might be attainable through empirical investigation. The key lies in clarifying the still poorly understood operations composing the mind and in improving the piecemeal approach science has taken to its material properties." Ibid., 60.

mission."[40] Wilson staunchly defends the possibility of objective knowledge despite cries

that our individual perspectives mitigates such an understanding.[41]

The second consequence for Wilson is that since all thought is determined by

biochemical and neural stimulation, in theory it is possible to have a true "artificial

intelligence" (AI). However, though this is theoretically true, in practice it will be a long

time before science has a sufficient grasp of the inner-workings to make a true AI.[42]

Given our current technology we can only approximate AI. It is not enough, he says, to

approximate the functional complexity of the brain, because the continuous flux of

mental activity is to a large part regulated by emotions. As such, to have a true AI would

also need an account of a true "artificial emotion" (AE) and science has a long way to go

in developing anything of this sort. This will require an all new type of computation.[43]

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[40] Ibid., 60-61 (emphasis in original).

[41] This is one of the areas in which I tend to agree with Wilson. While I think the possibility of objective knowledge/truth is there, discovering it can be difficult. On this we agree. Beyond this simple agreement, however, I disagree with his understanding of what it means for something to be objectively true. First, he limits knowledge to only that which is empirical, but since this is itself *not* an empirical claim it is self-defeating and not a source of knowledge. Second, it is doubtful if in his materialistic system if "we" can actually "understand" anything at all. If our "minds" are our "brains" and "think/understand" as a necessary biochemical reaction, then it is difficult to see how we can "know" anything – since it would require my brain's neural activity to ascent. But in his system, "I" cannot "choose." For there *is* no "I," nor is there "choice" – the brain just *does* what it *does*.

[42] Ibid., 120-121. It should be noted that several transhumanists are quite optimistic about the emergence of AI within the next few decades. Indeed, Ray Kurzweil is banking on AI by the year 2045. See his *The Singularity is Near* (New York: Viking, 2005). Ben Goertzel is likewise optimistic about the prospects of AI emerging in the near future. See his "Artificial General Intelligence and the Future of Humanity," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 128—137.

[43] Wilson, *Consilience*, 123. But note that some transhumanists are confident that this new type of computation is indeed possible. Ray Kurzweil remarks that researchers have been experimenting with parallel functioning hardware like "neural chips" – systems based on the structure of the human brain – for many years. In other words, the computation likely to result in a true AI will not really resemble standard computer programming languages like Basic, Pascal, C++, and the like. See, Ray Kurzweil, "The Evolution of Mind in the Twenty-First Century," in *Are We Spiritual Machines?: Ray Kurzweil vs. the Critics of Strong A.I.* (Seattle, WA: Discovery Institute, 2002), 38—39.

The third consequence for Wilson is that since humans are biochemical machines, and since chemical reactions occur in repeatable (and seemingly necessary) patterns, the question arises – can humans actually exercise free will? Physicalism seems to demand a negative answer, but if the answer is "yes" then physicalism would seem false.[44] If humans are but an extravagant biochemical machine, then their (re)actions should be just as determined as any other chemical process. Wilson phrases the dilemma nicely when he says:

> An old impasse nonetheless remains: If the mind is bound by the laws of physics, and if it can conceivably be read like calligraphy, how can there be free will? I do not mean free will in the trivial sense, the ability to choose one's thoughts and behavior free of the will of others and the rest of the world all around. I mean, instead, freedom from the constraints imposed by the physiochemical states of one's own body and mind.[45]

Wilson's answer attempts to bypass the horns of the disjunctive dilemma. He says, in principle individuals *do not* have free will, but the processes involved in brain chemistry are so complex that it is the same *as if* the individual had free will.

> So there can be no simple determinism of human thought, at least not in obedience to causation in the way physical laws describe the motion of bodies and the atomic assembly of molecules. Because the individual mind cannot be fully known and predicted, the self can go on passionately believing in its own free will. And that is a fortunate circumstance. Confidence in free will is biologically adaptive. Without it the mind, imprisoned by fatalism, would slow and deteriorate. Thus in organismic time and space, in every operational sense that applies to the knowable self, the mind *does* have free will.[46]

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[44] All chemical reactions occur due to the properties of the chemicals and elements involved, not because the elements and chemicals "choose" to act in a certain way – sodium does not "choose" to react violently when mixed with water, it just does.

[45] Wilson, *Consilience*., 119.

[46] Ibid., 120. Terrence Nichols notes that this (mis)understanding about the reality of free-will is common among naturalistic philosophers. Nichols, *The Sacred Cosmos*, 126.

From the clothes you wear to the political policies you endorse, every action is ultimately tied to a chemical / electrical reaction in the brain. The illusion of freedom is an adaptive quality that aids survival. For, if we ever knew how determined we were, then it would drive us to depression – which is detrimental for survival.[47]

2.2.2 Humans as Only Physical and Biological Organisms: The Physical Basis for Human Cognition

2.2.2.1 Eliminatvism – Mental States are Just Brain States: Daniel Dennett

Two concepts from Daniel Dennett important to this discussion are: first, his notion that the "self" should be viewed narratively; second, his argument about the "intentional stance." In regard to the narrative-self position, it is popular among modern physicalists to outright deny any notion of there being an actual "self." Indeed, given the common understanding that the mind is just the brain at work, and that the body is a Humean bundle of parts, the idea of some stable "self" appears incoherent.[48] There is, though, a collection of particles that combine to make a being that sometimes refers to itself as "I". However, Dennett finds this talk unsatisfying. These two options – either the soul exists or the "self" is wholly unreal – are simply too limiting for his taste and thus he seeks a middle ground.[49] For when we use personal pronouns and reflective words, we really think we are referring to *something*. Now, Dennett would agree with these philosophers and scientists that there is no substantial form to the human person, and

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[47] Wilson, *Consilience*., 119-120.

[48] He rejects the notion that there is some immaterial mind / soul that is true self and he denies that the "self" is wholly unreal. If there is no underlying substantial form, then there can be no self. Thus, terms like "self", "me", "you", "we", etc. are simply shorthand for the current conglomeration of biological parts at that moment. There is no literal "you" or "me". "I" do not exist, for an "I" is not a physical thing.

[49] Daniel Dennett, *Consciousness Explained* (New York: Little, Brown and Co., 1991), 413.

certainly nothing like the traditional religious or philosophical notion of a soul. But he

hesitates to say that our language is wholly incorrect. For Dennett it appears some sort of

"selves" obviously exist now even if there was a time when there were no selves.[50]

Rather, there is something to be said about the notion of "self."[51] Thus, he develops his

idea of the narrative-self.

For Dennett – and like Wilson above – the basis of the self is biological.

Biological selves are useful for distinguishing between different biological entities, but it

is too "porous" to be of any use in developing an individual identity.[52] There are few (if

any) clearly defined boundaries. Yet, psychologically we think that what is "in" us is part

of us, but this does not seem correct either – otherwise intestinal parasites would be

considered part of "us" too.[53] We tend to think what is outside of us is something

"other."[54] Evolution has shaped us to respond to outside stimuli – this is an adaptive

feature. All animate creatures respond to outside stimuli – only humans, however, seem

to regularly decide how to act.

Thus, there is an aspect to humans that appears to be unique among biological

beings – we can create an "extended phenotype." Simpler creatures still seem to have

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[50] Ibid.

[51] Ibid., 412-413.

[52] The "boundaries of a biological self are porous and indefinite." Ibid., 414.

[53] For example, humans are hosts to many parasites from worms (which we do not need) to bacteria (which are essential to our survival). These parasites are both distinct *and* part of our "selves." Even psychologically we tend to think that what is "in" us is part of us, but what leaves us is distinct (swallow some spit that is in your mouth, no big deal. Now collect your spit into a cup and then drink it, pretty gross).

[54] Ibid.

some sense of "self" and extend themselves through "extended phenotypes."[55] For Dennett, the creation of this self is a biological product of evolution. It is a survival mechanism that enables the passing on of genes to have a sense of "self."[56] When reflecting on human behavior it may appear as though there is some immaterial soul driving our complex (and beautiful) behavior but there is no such thing. Upon reflection we see that human boundaries expand and shrink – humans make grandiose claims and retract regrettable statements.[57] It is not hard to see that humans and animals present "themselves" differently. Whereas animals use "things" as extended phenotypes, humans use "words" – ideas.[58] We concoct stories about ourselves.[59]

It is the story, the narrative, that accompanies this particular collection of biological parts that makes me "me". Now this narrative-self is not itself a "thing" but it is real. For Dennett a close analogy would be the concept of a "center of gravity." In the same way that physicists utilize the concept of a center of gravity to find the "center" of an object, so too do humans use a center of narrative gravity to find the "self."[60] Centers

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[55] Beavers build dams, crabs acquire shells, birds build nests, termites build dirt towers, etc. These creatures, however, respond to instinct, not deliberation. Humans alone create a "self" through words and deeds. Ibid., 415-416.

[56] Ibid., 416.

[57] Ibid., 417.

[58] Ibid.

[59] "Our tales are spun, but for the most part we don't spin them; they spin us. Our human consciousness, and our narrative selfhood, is their product, not their source." These stories, then, attempt to weave a coherent narrative. Ibid., 418.

[60] "Like the biological self, this psychological or narrative self is yet another abstraction, not a thing in the brain, but still a remarkably robust and almost tangible attractor of properties, the 'owner of record' of whatever items and features are lying about unclaimed." Ibid. That is, a thing's center of gravity is not an actual part within an object, but it is not unreal either. It is a fiction, but it is a magnificent and useful fiction as it helps to explain the phenomenon.

of gravity really exist, but they exist as an aspect of a thing not as a reality on its own. So too, the narrative-self really exists, but it exists as a concept and not a reality on its own. "Selves" are the centers of narrative gravity.[61]

We may use the term "soul" in our everyday language for convenience but it is misguided to think it is real.[62] Some may want to retain the use of the term "soul" for moral reasons, since the notion of a soul appears to allow society to lay blame or praise on individuals as there is some continuous entity that performed the moral act, but Dennett thinks this is wrong headed.[63] Rather Dennett asserts that the only way to retain free-will and moral responsibility is to relinquish any notion of the soul.[64] The "self" is a representation of one's center of narrative gravity. It is an abstraction accumulated by different attributes and various interpretations. It is a fiction, but it is a "magnificent fiction."[65] Thus, moral responsibility attaches to people because of the narrative that is created by their actions. Though important for the cognitive development of the person it is important to remember there is no immaterial "self" just the material "self."

This idea that the narrative-self is a concept leads us to the second of Dennett's contributions, and that is the notion of the "intentional stance." In regard to the "intentional stance," in the philosophy of mind a perineal problem for physicalist conceptions of mind is how the brain / mind can account for intentionality – being about

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[61] Ibid.

[62] Ibid., 424.

[63] Ibid.

[64] Ibid., 430.

[65] Ibid., 429.

something else.66 Physicalists have a hard time saying how something material – the brain – can intend, or be about, something else that is material. Intentionality appears to be inherently *immaterial*. Dennett takes it that he has solved this problem by developing the idea of the intentional stance.67 Basically, the intentional stance is explaining a certain behavior of an entity by attributing to it beliefs and desires – or more accurately, what looks like beliefs and desires, but really is not. We treat the thing as having a mind (even though it *really* does not) in order to make sense of its actions and reasoning. The presence of an actual "mind" is unnecessary, for what matters are the beliefs and desires of the being.68

However, for Dennett, the intentional stance can be used to "unravel" all sorts of mysteries related to the mind – from how we account for similarity in thought among people to how we attribute "mind" to inanimate objects.69 The basic strategy for applying the intentional stance is simply to just treat the subject *as if* it really does have a mind all

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66 "Intentionality in the philosophical sense is just *aboutness*. Something exhibits intentionality if its competence is in some way *about* something else." Daniel Dennett, *Kinds of Minds: Towards an Understanding of Consciousness* (New York: BasicBooks, 1996), 35 (emphasis in original).

67 See the discussion by John Heil on this topic. John Heil, *Philosophy of Mind: A Contemporary Introduction*, 2nd ed. (New York: Routledge, 2004), chapter 11. He says, the "intentional stance is the strategy of interpreting the behavior of an entity (person, animal, artifact, whatever) by treating it *as if* it were a rational agent who governed its 'choice' of 'action' by a 'consideration' of its 'beliefs' and 'desires'" (Dennett, *Kinds of Minds*, 27 emphasis in original). For Dennett, we "routinely adopt [this position] toward one another" and as a result anthropomorphize various things (people, animals, nature, etc.). Ibid.

68 As will be discussed in chapter 3, Edward Feser points out a significant hurdle for Dennett's position on the intentional stance. He says, "For us to take a stance toward something, including the intentional stance, is itself a manifestation of intentionality; so we can't coherently suppose that intentionality is a mere artefact of the stance we take toward ourselves." In other words, for Dennett's position to make sense, he must utilize intentionality, but this is precisely what he denies exists. Thus, if Dennett, is right about the intentional stance, then he must at the same time be wrong about the intentional stance. Edward Feser, *Philosophy of Mind: A Beginner's Guide* (Oxford, UK: Oneworld Pub., 2006), 191.

69 Dennett, *Kinds of Minds*, 27.

the while cognizant of the reality that it does not have one literally.[70] Adopting the intentional stance is highly useful when interacted with complicated machines (artificial or biological).[71] As Dennett puts it, "You predict its behavior *as if* it were a rational agent."[72]

But, how should we understand intentional objects? Dualistic minded philosophers have opted for an "intrinsic intentionality" – that is, there is something about a baked apple that communicates to the observer (i.e., red, apple-shaped, fragrant, yummy, etc.). Dennett finds this explanation inadequate. Rather, there is only a "derived intentionality." We easily see that conventional messages are derived. We understand the contents of a shopping list only because we are familiar with language, lists, the items listed, and the practice of going shopping for food. But what applies to our conventional practices also applies to our natural observations. Its only because of our past experiences with baked apples that we know they are good for eating. Hence, even the baked apple

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[70] Ibid., 27—28.

[71] For example, suppose you are playing chess against a computer. You can take the intentional stance with the computer and simply assume that it has "goals" (i.e., capture your king) that are achieved by performing certain maneuvers that it "believes" (i.e., moving the knight to E7 will put your king in check) will best achieve its goal. Now, the computer does not literally *have* a mind, but in order to complete the game of chess, we treat it *as if* it had a mind.

[72] Dennett, *Kinds of Minds*., 30—31. If you treat the computer as an "intentional system" – you have essentially anthropomorphized the computer. But this anthropomorphism takes place with every "intentional system." "We treat all intentional systems as if they were just like us – which of course they are not." Ibid., 33. What makes something an intentional system is when its "behavior is predictable/explicable from the intentional stance." Ibid., 34. It seems then that intentional systems have thoughts, and for Dennett, they do. Their thoughts (i.e., perception, identifying, recalling, etc.) are limited to the particular *way* that the system thinks. For example, suppose that there is a freshly baked red apple on a counter. Since humans are limited to sight along a narrow "visible" band of the electromagnetic spectrum, what the person sees is a red apple. Now, some animals can see along other wavelengths (e.g., infrared – like rattlesnakes), if these animals were to look at the apple what would they "see"? They would see a warm object in the shape of an apple. The experience of the same baked apple is different for the person and the animal. The question then becomes, of what is it that is being "thought" by the person and the animal? Dennett's answer is the "intentional object." The baked apple is what the various thoughts are about. Ibid., 37.

(as an eatable object) is no less a derived intention than the shopping list. Indeed, for Dennett, there is no benefit of assuming an intrinsic intentionality that cannot be at least as explanatory (if not better) than derived intentionality.[73] What then is the use of intrinsic intentionality? None. Derived intentionality of an intentional object provides the basis for thought in an intentional system. There is no need to resort to some immaterial soul or mind or self to account for this behavior. It is completely explicable in terms of evolutionary biology.

Thus, the intentional stance and the narrative-self are similar in this respect – they presuppose the existence of something else even though it does not exist in order to make sense of the phenomena. Hence, this is why Dennett is being categorized as an eliminativist – he has removed the immaterial "self" and reinterpreted the language of self in material terms. Dennett takes it that the narrative self and intentional stance are sufficient for explaining why we experience and utilize terms of "self" as well as believe that actual immaterial "minds" exist. Both are ultimately figments of our imagination, but useful for engaging with the world.

2.2.2.2 Functionalism – Mental States Result from a Properly Functioning Brain: Jerry Fodor

It should come as no surprise that empirically minded scientists and philosophers seek an "experiential basis of concepts" to account for "various verbal and non-verbal responses to specified stimuli."[74] Any given (re)action must have some cause. Part of the

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[73] Ibid., 55.

[74] Jerry Fodor, "Materialism," in *Materialism and the Mind-Body Problem*, ed. by David M. Rosenthal (Englewood Cliffs, NJ: Prentice Hall, 1971), 129.

impetus for this conviction is that the unity of science demands that various phenomena be reduced to their constituent parts. Hence, if there is some psychological phenomena, then the empiricist is bound to explain it in materialistic terms as basically as possible.[75] Jerry Fodor takes it that there are a number of ways to explain psychological phenomena. Dualism is the most problematic as it seems to undermine the unity of scientific experience. This leaves materialistic approaches like Behaviorism and Identity Theory as the only major competitors. For Fodor, both Behaviorism and Identity Theory are insufficient to account for psychological phenomena, thus Fodor opts for functionalism.[76]

Suppose you observe the neurological event of someone experiencing pain. Say, they are being poked with a needle. If their experience of the pain (p) is identical to the neurological event (n) which you observed, then it follows that you (y) observed their pain.[77] But this process is explicable in wholly materialistic terms. The poking needle caused the neurons to fire in a particular way which causes the person to experience pain. This event was registered on some machine and observed by you. If you could stimulate the nervous system to replicate the neurological pattern without the needle poke, then the person should still "feel" pain, even though the needle were no longer present. This is taken as evidence that the inferred entities (IEs – in this case the IE is the experience of

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[75] Ibid., 128.

[76] Fodor begins his analysis by acknowledging that our everyday ordinary language expresses culturally accepted views. Ibid., 130. Of course, our culturally accepted views could be wrong. Nevertheless, our common language usage is the starting point. He takes it that behaviorism cannot actually "link" our actions with our mental perceptions of the world with logical necessity. However, this does not mean that dualism is acceptable either, since there is a "peculiar intimacy of the relation between statements about behavior and statements about mental states." Ibid., 131. In short, behaviorism lacks the logical necessity empiricism needs to explain our experience of inferred entities (IEs) and dualism neglects the physical basis for desire to explain certain behaviors related to IEs. What is needed is a middle path. And the middle path that Fodor proposes (i.e., functionalism) is in-line with materialism.

[77] Put as a formula it would go like this: If y observes n, and n is identical to p, then y observes p.

pain) can be explicable in wholly materialistic terms. And for Fodor, the possibility to

observe IEs is essential for materialism as an explanatory model.[78] For it is in

materialism's ability to explain the observable world that unifies scientific knowledge.[79]

For Fodor, identity theory (IT) is insufficient to account for the psychological

phenomena.[80] Fodor then reasons that psychological phenomena need not be superfluous

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[78] Ibid., 134.

[79] At this point, Fodor needs to address a couple of objections to materialism. The first objection is Leibniz's Law of Indiscernibles (LLI). Now LLI holds that "if x is identical with y, then every nonintensional predicate true of x is also true of y and vice versa." Ibid., 135. That is, if x is really identical to y then there are no instances in which y has some predicate that is not also shared by x. For if there were any differences, then they would not be identical. This comes into play as an objection that a neurological event is identical to the experience of pain. Can x be identical to y? Are neurological events identical to mental states? If they are identical, then there should be no aspect of one that is not shared with the other. Likewise, if it can be shown that either y or x have some feature not shared by the other, then they are not identical, and Fodor's hope of an observable IE is negated.
    Similar to LLI is the Law of Transferable Epithets (LTE), which holds that "if x is identical with y, and if Fx makes sense (is linguistically possible), then Fy must also make sense (be linguistically possible)." Ibid. Fodor takes it that if LTE were true that this would have ramifications for a materialistic view of IE. As a crude example, reconsider the person experiencing pain above. Suppose that the neurological event took place four inches from the base of their skull. Because the neurological event (n) is supposed to be identical with the pain (p) it would follow that p took place four inches from the base of the skull. But surely, this doesn't make sense. It seems reasonable to say that a pain (p) occurred four inches from the base of the skull, but it seems false to say that the neurological event (n) was experienced four inches from the base of the skull. The pain would be experienced wherever the needle poked the person. This is taken as a primary objection to materialistic accounts of IE. Fodor remarks that there are three common responses to this type of argument – and none of them are successful. Ibid., 136—139. First, if one simply denies that n took place four inches from the base of the skull, then this both neglects neurological sciences which do account for neurological events and gives too much power to linguistic oddities – and materialism cannot be ultimately threatened by the idiosyncrasies of language. Even if language is limited, this is no reason to abandon materialism. Secondly, one could claim that LTE is an invalid way of reasoning. Denying LLI may result in contradiction, but denial of LTE does not. However, LTE does have good scientific grounding, so dismissing it as unnecessary seems a bit extreme. For example, the statement "Earth is round" is identical with some statement like "the Earth can be circumnavigated." Is it possible to imagine a scenario in which Earth could not be circumnavigated (in principle) and yet be round? Of course not. The Earth being round and circumnavigable go hand-in-hand, but denying the Earth's roundness does not logically entail the impossibility of circumnavigation (e.g., suppose the Earth were a cube). The final argument is to point out that by using LTE materialist can be shown to use psychological states to ultimately dismiss the existence of psychological states. Fodor's reply is that this is merely a restriction on grammar, not a restriction on materialism.

[80] For physicalism to unify scientific knowledge, an appropriate materialistic account of psychological states must address a number of problems. As such, can IT – where certain psychological states are understood to just be brain states – be a sufficient explanation of psychological phenomena? For Fodor, the answer is no. IT upholds materialism's insistence that psychological states are reducible to material basis, but does so at the expense of arbitrarily restricting forms of "inference that otherwise appears to be valid: the inference from 'Having an X is just being in state Y' to 'an X is a Y.'" Ibid., 139. If

to understanding mind. Why should psychological phenomena necessarily be a danger to materialism? They shouldn't. Hence, they should be taken as part and parcel with our materialistic explanation of the world. Thus, Fodor opts for a functionalist view of psychological phenomena. This is established in two phases. The first phase attempts to refer to psychological states according to the "mechanisms responsible for the production of behavior"[81] – their function. The second phase, explores the biochemical systems that create the functional characteristics as found in phase one.[82] This allows for the unification of science under materialistic terms, and avoids the problems inherent in IT, behaviorism, and dualism.

For Fodor, then, materialism as expressed in functionalism is a superior way to examine psychological phenomena. It also has the added benefit, he believes, of avoiding reductionism, for psychological phenomena (e.g., sensations) cannot be simply examined in terms of their neurological parts. The function of "pain" is system-wide – it involves the whole entity. It cannot be reduced to simply different neural firings. The difference here is considering in what something consists versus what role something plays. To merely ask the question of what something consists, is to ask a reductive type question. This is legitimate, to be sure, but limiting. In what does "pain" consist? A series of neural

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IT is true, this inference is invalid. But for Fodor, surely this inference makes sense. As such, he must look for some other materialistic thesis to account for psychological phenomena in a materialistic outlook.

[81] Ibid., 140. At this level we can distinguish between psychology and neurology. Psychology is the study for explaining the overall pattern of behavior. Why are certain actions performed? What is being intended? And so forth. Neurology, on the other hand, is examining the "hardware" of the brain. Two different brains may have the same psychological function. For example, a basic calculator and a smart phone may both be able to consider equations like "2+2=4" and thus they have the same "psychological" function. But how they operate to derive their respective conclusions is determined by different "neurology." This insight leads Fodor to reject IT. The neurology does not need to be the same as the psychology to produce the same results.

[82] Ibid., 142.

firings, sure. But this fails to account for why "pain" hurts. The further question is needed, of what role does "pain" play? The function of "pain" is more holistic and thus a more satisfying account. "Successful functional analysis . . . requires an appreciation of the sorts of activity that are characteristic of a mechanism and of the contribution made by the functioning of each part of the mechanism to the economy of the whole."[83] As such, functionalism allows for reductive analysis of a system (i.e., psychological in terms of brain states), but also allows for analysis at a higher functional level. This preserves the unification of scientific experience.

2.3 Substance Dualism

After mounting an argument there is no soul or mind, Nancy Murphy makes the following point that no amount of "accumulation of data can ever amount to a proof that there is no immaterial mind or soul in addition to the body."[84] Yet, she insists the idea of a "soul" is a Western philosophical concept, not a Hebraic concept.[85] The idea of the soul

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[83] Ibid., 144.

[84] Murphy, *Bodies and Souls, or Spirited Bodies?*, 69.

[85] There is ample reason to think that Murphy is simply wrong to assert the notion of a soul is (only?) a "western" philosophical concept. Various non-western religions also retain some notion of a spirit or soul that is essential to a proper view of human nature. Native American burial practices are specifically designed to respect and "feed the departed spirit." The common Hindu belief of reincarnation is wholly predicated on the idea that people are essentially spiritual beings. Likewise, some forms of Buddhism (i.e., Pure Land) believe that human souls depart to paradise upon death. Winfried Corduan, *Neighboring Faiths: A Christian Introduction to World Religions* (Downers Grove, IL: InterVarsity Press, 1998), 181. William A. Young, *The World's Religions: Worldviews and Contemporary Issues*, 2nd ed. (Upper Saddle River, NJ: Princtice Hall, 2005). Terrence Nichols remarks "most religions, including tribal religions (e.g., traditional African and Native American religions), Hinduism, and Christianity, have traditionally held that the animating force in a person is a soul." Nichols, *The Sacred Cosmos*, 126. The notion of an immaterial soul is a worldwide phenomenon.
 However, Murphy could reply that all she means to say is the notion of a soul does not derive from within Judaism. In other words, she could be saying that if Judaism had never had any contact with other belief systems, then no notion of the soul would have developed. I find this thesis highly unlikely. J. P. Moreland and Scott B. Rae, *Body and Soul: Human Nature & the Crisis in Ethics* (Downers Grove, IL: InterVarsity Press, 2000), 27—33. Nichols, *The Sacred Cosmos*, 127—130.

was an explanation for certain capacities and functions of human behavior – but biologically, the soul is no longer needed and is wholly unnecessary.[86] Nevertheless, the notion of a soul has a long and venerable history. Below are some of the historical and contemporary arguments utilized for believing that humans are more than merely biological organisms.

2.3.1 Substance Dualism – Plato, Augustine, and Descartes

That humans have a soul of some sort has a long and venerable history in both religious circles and philosophical circles. This fact in itself does not prove that souls exist, but the persistence of the belief in souls may say something about our common experience with the world that is worth exploring. Here we will look at the classical arguments as put forth by Plato, Augustine, and Descartes. These classical authors argue that humans are best understood as body and soul. With the mind and soul often being thought to be interchangeable.

Plato's *Republic* ultimately discusses Plato / Socrates' vision of the ideal State that will allow humans to flourish.[87] The goal is for human happiness, but there is a particular way in which the parts must fit together to achieve that happiness. Further, how Plato views the State has implications for human nature, since for Plato, the State and human nature are mirrors of sorts and have a similar hierarchy (*Rep.* II, 368e).[88] Having a

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[86] Murphy, *Bodies and Souls, or Spirited Bodies?*, 69.

[87] It is often difficult to determine where Socrates' ideas end and Plato's begin. Some scholars speculate (with good reason!) that Plato simply uses Socrates as a mouthpiece for his own ideas. For ease of use, however, I will attribute the ideas to Plato. See A. E. Taylor, *Socrates: The Man and His Thought* (New York: Doubleday, 1952), 25—27.

[88] All references are to the *Republic* are found in John M. Cooper, ed. *Plato: Complete Works* (Indianapolis, IN: Hackett Publishing Co., 1997), 971—1223.

proper view of the human nature in turn, provides a clue for how people are to obtain happiness and how they are to live with others (II, 369d).

When the State is operating properly, then it will exhibit wisdom, courage, and moderation – and the proper balance of these is justice. The person too will be living a "just" life if they are wise, courageous, and moderate in the right proportions. When people are acting with virtue, this is an indicator that they are in proper balance and their soul is "healthy" (ὑγίειά – IV, 444d). When people are not in balance they experience conflicting inclinations. To explain this conflict and need for balance, Plato relies on the notion of the soul.[89]

Plato believes there is a soul because he is convinced that there is a "world of forms" and that the human mind has beheld this world of forms, thus the need for an immaterial aspect to humans is apparent. The forms are intellectual realities and can only be "seen" by intellect (which is inherently immaterial), thus if the forms are immaterial then the intellect that beholds them must also be immaterial.

For Plato then, an analysis of human knowledge will reveal the immaterial nature of the soul. As such, we can turn to Plato's account of how humans obtain knowledge of the forms. For Plato, true philosophers (the wise) love the sight of truth (V, 475e), and though people love to see beautiful *things*, the wise person will want to know the nature

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[89] The different parts of the soul incline one to different desires, and the solution to control them is found in ordering the soul properly (IV, 441d—e). The rational part (i.e., rational power) of the soul is equated with the ruling class, and as the ruling class rules the State so too does reason rule the rest of the soul (IV, 441e). The irrational aspect of the soul is like the merchant class which must be restrained but provides clues on what the body and soul need or want. The spirited part is equated with the guardians and just as the guardian class is employed to defend the State, so too does the spirited part of the soul give the person "gumption" (ἀνδρεῖον – IV, 442b).

of *beauty* itself (V, 476b—d).90 So how does one achieve knowledge? Plato's strategy to

answer this question is to analyze what it is we "see." And here he finds the relevant

insight. Things are visible, but not intelligible. Forms are intelligible, but not visible (VI,

507b).91 The mind is able to know the forms because the "good" is the cause of the forms

and is also itself an object of knowledge.92 To know what is "good" is to know the forms

(VI, 509b), for the other forms owe their being to the "good." To have knowledge is not

to know things, but forms.93 But the only way for the intellect to know an immaterial

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90 Hence, Plato is after knowledge, not mere opinion (V, 476d). Opinion is neither ignorance nor knowledge (V, 478c), but is undesirable since it is only half-way between knowledge and ignorance (V, 477a—b). So, opinion is clearly not knowledge, which is what Plato is after (V, 478a).

91 For example, I can see triangular shaped things, but I never see any true (perfect) triangles. Every triangle in my experience is in some way defective – even if only slightly so. "Triangle" as a geometric concept is pure only in its form, not in any instantiation. Thus, in a way, the mind and sight are similar. The understanding is kind of like seeing. But what the mind "sees" is intelligible forms ("triangleness" itself), not things. He says, "understand the soul in the same way: When it focuses on something illuminated by truth and what is, it understands, knows, and apparently possesses understanding, but when it focuses on what is mixed with obscurity, on what comes to be and passes away, it opines and is dimmed, changes its opinions this way and that, and seems bereft of understanding" (VI, 508d). "οὕτω τοίνυν καὶ τὸ τῆς ψυχῆς ὧδε νόει: ὅταν μὲν οὗ καταλάμπει ἀλήθειά τε καὶ τὸ ὄν, εἰς τοῦτοἀπερείσηται, ἐνόησέν τε καὶ ἔγνω αὐτὸ καὶ νοῦν ἔχειν φαίνεται: ὅταν δὲ εἰς τὸ τῷ σκότῳκεκραμένον, τὸ γιγνόμενόν τε καὶ ἀπολλύμενον, δοξάζει τε καὶ ἀμβλυώττει ἄνω καὶ κάτω τὰςδόξας μεταβάλλον, καὶ ἔοικεν αὖ νοῦν οὐκ ἔχοντι."

92 "What gives truth to the things known and the power to know to the knower is the form of the good. And though it is the cause of knowledge and truth, it is also an object of knowledge. Both knowledge and truth are beautiful things, but the good is other and more beautiful than they" (VI, 508e). "τοῦτο τοίνυν τὸ τὴν ἀλήθειαν παρέχον τοῖς γιγνωσκομένοις καὶ τῷ γιγνώσκοντι τὴν δύναμινἀποδιδὸν τὴν τοῦ ἀγαθοῦ ἰδέαν φάθι εἶναι: αἰτίαν δ᾽ ἐπιστήμης οὖσαν καὶ ἀληθείας, ὡςγιγνωσκομένης μὲν διανοοῦ, οὕτω δὲ καλῶν ἀμφοτέρ ων ὄντων"

93 Using the example of a triangle we can describe what Plato has in mind here. When we are young we encounter triangular shaped things (i.e., image, or imagination). We see these flat three sided figures and begin with basic judgements about it. It is called a "triangle," for example. As we grow we gain certain beliefs about triangles – they exist, they have only three sides and three angles, etc. At this point we do not quite understand triangles, but neither are we ignorant of them (i.e., belief / opinion). As we reflect on the nature of the triangle, we discover that the sum of their interior angles add up to 180 degrees. Likewise, we may discover properties of right triangles like the square of the sides equals the square of the hypotenuse (i.e., thought). At this level we are approaching knowledge of triangleness. Once we recognize that we have never encountered a true triangle, but we are able to recognize what a triangle *is* (i.e., knowledge of the form) we can be said to have knowledge of the triangle. This illustration shows that for Plato, knowledge is in knowing the immaterial form of things. This is brought out more expressly in the *Phaedo* where Plato expounds on his doctrine of recollection. The same idea is at play there as here,

form is for itself to also be ultimately immaterial. And since the intellect is the ruling

power of the soul, it follows that the soul is itself immaterial. Here then is why Plato

thinks humans have an immaterial soul – the human intellect is able to behold immaterial

forms.[94]

Saint Augustine operates within a neo-Platonic framework wedded to a Christian

view of persons. Humans are *terra animata* "animated earth" or "earth with a soul."[95] He

makes distinctions between the body and soul, with the soul being better than the body.[96]

For on Augustine's theory of being, souls are higher on the scale than physical bodies.

Indeed, for Augustine, the soul "rules" the body in the same way that God "rules" our

souls. Thus the soul inhabits a middle ground in which it needs God as its master, but the

body as its slave. For the soul needs the body to perceive the world.[97] But the soul does

poorly when it obeys the whims of its "slave." Hence, to retain the right order of being,

the soul should obey God and the body should obey the soul.

As an argument that the soul and body are distinct, Augustine notes that the

power to think is not a physical ability. Likewise, the ability to judge and reason is higher

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however. The mind knows because at some point it was beholding the immaterial forms. The implication is
the same – the mind is immaterial.

[94] Plato goes on to discuss the analogy of the Cave, but it is irrelevant for our purposes at this
point. All that needed to be established is *how* Plato establishes his account of the dual nature of human
beings.

[95] As he says, "For it was into a face of earth that God breathed the breath of life when man was
made a living soul; as if it were said, Thou art *earth with a soul*, which thou wast not; thou shalt be earth
without a soul, as thou wast" (*CoG* 20.20). Saint Augustine, *The City of God*, trans. by Marcus Dods (New
York: Modern Library, 2000), 742 (emphasis added). "*quod eras antequam esses animatus (terrae quippe
insufflauit Deus in faciem flatum uitae, cum factus est homo in animam uiuam); tamquam diceretur: 'Terra
es animata, quod non eras; terra eris exanimis, sicut eras.'*"

[96] Saint Augustine, *The Essential Augustine*, ed. by Vernon J. Bourke (Indianapolis, IN: Hackett
Pub., 1974), 45.

[97] Ibid., 46—47.

than the objects it considers. For example, the ability to reason about apples is itself a higher capacity than the apple itself. Mental activities are better than bare physical existence. Thus, Augustine concludes that the rational soul cannot be corporeal.[98] As further evidence that the mind is different (and better) than the body Augustine notes that the mind can consider "color" without being able to currently see anything – as when one dreams about a rainbow. This ability shows that the mind is different than body. For if mental events were purely physical, so he reasons, then we could not consider "color" without it being present to our senses.[99]

Augustine believes that thoughts can be abstracted from phantasms, but in this act the mind prefers to contemplate the unchangeable rather than the changeable. That is, the mind would rather focus on "beauty" *per se* rather than to perceive beautiful things (i.e., paintings, landscapes, etc.). But if the mind is able to make this distinction, then it follows that the mind is able to know the unchangeable (7.17.23). And what is unchangeable cannot be material which often changes. Likewise, what beholds the immaterial cannot itself be material, thus it follows that the mind – the soul – must be immaterial.

Considered the "Father of Modern Philosophy," Rene Descartes ushered in a wave of European rationalism.[100] Consumed with how to overcome doubt and achieve certain / absolute knowledge, Descartes performed a number of thought experiments. The

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[98] Ibid., 58. It should be noted that Augustine considers the rational soul and the ability to think as a one and the same substance. For Augustine, it is the rational soul that thinks in its entirety. That is, it is the whole soul that thinks, remembers, and wills. Ibid., 68, 77.

[99] Ibid., 72.

[100] Francis H. Parker, *The Story of Western Philosophy* (Bloomington, IN: Indiana University Press, 1967), 177.

most famous was enclosing himself in a vault to block out as many of his senses as he could. Utilizing the approach dubbed, "methodical doubt," he tried to question the truth of everything of which he could think – the physical world, his senses, and even the principles of mathematics.101 The one truth, however, that he could not doubt no matter how hard he tried was that he existed – *cogito ergo sum*. From this unshakeable starting point, Descartes built a philosophical system that delineated what was real and what was unreal based on human rational abilities. Part of what his insight required is that people are really minds whose bodies are extended in space. If you remove the body, the mind remains. Humans are ultimately and essentially immaterial souls.

There are several arguments that Descartes gives for thinking that the soul is immortal (and thus immaterial, not to mention existing). The first is by noting the rational capacities of humans compared to mere machines and other animals. But for out puposes, the second, and more popular, way that Descartes argues for the existence and immortality of the soul is found in the *Mediations on First Philosophy*. In the sixth meditation he begins by recalling a number of early beliefs about the soul that he would later come to repudiate.102 However, Descartes eventually came to believe after engaging

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101 It should be noted as well that Descartes begins his system with a rejection of the Aristo-Thomistic understanding of formal and final causes. This assumption drives his views of material reality. Nichols, *The Sacred Cosmos*, 135.

102 First, that physical sensation is merely corporeal. Second, that we know different things simply by having different sensations. Third, our ideas are brought about by empirical observation. Fourth, our ideas of sensations are vivid and prominent. Fifth, as such nothing in the intellect was not first in the senses. Finally, he could not separate thought from his body. "I had some reason for holding that the body I called '*my* body' by a special title really did belong to me more than any other body did. I could never separate myself entirely from it, as I could from other bodies." Rene Descartes, *Meditations on First Philosophy*, in *Descartes: Philosophical Writings*, trans. and ed. by Elizabeth Anscombe and Peter Thomas Geach (Englewood Cliffs, NJ: Prentice Hall, 1971), 111—112 (emphasis in original). "*Non etiam sine ratione corpus illud, quod speciali quodam jure meum appellabam, magis ad me pertinere quàm alia ulla arbitrabar: neque enim ab illo poteram unquam sejungi, ut a reliquis.*"

in methodical doubt, that he could put no faith in his senses, since they can be deceived.103 Indeed, the same "sense" can be experienced either when asleep or awake.104 For Descartes, the experience of eating an apple can occur when you are awake or asleep. The experience is the same. Hence, he concludes that it appears our reason can produce objects of sensation.105 Thus, our senses cannot be fully trusted.

Now, any clear and distinct idea must be from God who cannot deceive.106 For while all that belongs to us is consciousness, it cannot be doubted that we are closely bound to our body. However, the clear and distinct idea of "me" is unextended, thus, "I" must be distinct from my body.107 For Descartes, the only thing that matters is that "I" am a conscious being.108

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103 Ibid., 113. "I have had many experiences that have gradually sapped the faith I had in the senses. It sometimes happened that towers which had looked round at a distance looked square when close at hand . . . And there were countless other cases like these, in which I found the external senses to be deceived in their judgment." "*Postea verò multa paulatim experimenta fidem omnem quam sensibus habueram labefactarunt; nam & interdum turres, quae rotundae visae fuerant è longinquo, quadratae apparebant è propinquo . . . . & talibus aliis innumeris in rebus sensuum externorum judicia falli deprehendebam.*"

104 Ibid.

105 Ibid., 113—114.

106 Ibid., 114. This assertion was "proved" in Meditation 3.

107 Ibid. That is, "I" can imagine myself *being* disembodied. Descartes takes this to mean that "I" am *not* my body. If "I" were my body, then the "I" could not even be thought to exist without the body – but the "I" *can* be thought to exist without the body.

108 He says, "Now I know that I exist, and at the same time I observe absolutely nothing else as belonging to my nature or essence except the mere fact that I am a conscious being." Ibid. "*ex hoc ipso quòd sciam me existere, quòdque interim nihil plane aliud ad naturam sive essentiam meam pertinere animadvertam, praeter hoc solum quòd sim res cogitans.*" This argument will be reasserted by modern defenders of substance dualism, since this is quite possibly, the most powerful *rational* argument for the immateriality of the soul.

Descartes notes that our bodies work like a machine even without the presence of a mind. The body, he says, is a machine.[109] Likewise, the body is divisible and separable. However, the mind is not.[110] For Descartes, it makes no sense to talk about the mind being "cut off" from itself the way a foot can be cut off the body. The mind wills, feels, and understands – it is one thing.[111] Further, the mind is not affected by all parts of the body – just the brain (and even then possibly just one small part of it).[112] The body may experience a sensation or not, but the brain can experience the same effect. That is, science tells us that if there is a pain in the foot it is because nerves are disturbed.[113] These nerves link with others up the spinal cord and into the brain where the sensation of pain is experienced. As such, it is conceivable to illicit pain or pleasure by pressing the correct nerve, without ever actually affecting the corresponding organ.[114] That is, one could experience pain "in the foot" without the foot actually being damaged as long as the correct nerve(s) were being disturbed. Thus, Descartes concludes that it appears that

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[109] "Fitted together and made up of bones, sinews, muscles, veins, blood, and skin in such a way that, even if there were no mind in it, it would still carry out all the operations that, as things are, do not depend on the command of the will, nor, therefore, on the mind." Ibid., 120. "*si considerem hominis corpus, quatenus machinamentum quòddam est ex ossibus, nervis, musculis, venis, sanguine & pellibus ita aptum & compositum, ut, etiamsi nulla in eo mens existeret, eosdem tamen haberet omnes motus qui nunc in eo non ab imperio voluntatis nec proinde a mente procedunt, facile agnosco illi aeque naturale fore.*"

[110] Ibid., 121. If a body part is lost (i.e., an arm), part of the mind is not also lost. Many people lose an appendage, but are no less of a person. We can imagine ourselves being torn apart limb by limb, but remaining the same person. But we cannot do that with our mind.

[111] Ibid.

[112] Ibid.

[113] Ibid., 122.

[114] Ibid.

the experience of sensation is merely for the well-being of the person (so they avoid pain).[115] The actual person, however, cannot be equated with their body.

In summary, then, working through his own personal struggles seeking certain absolute truth – indubitable knowledge. Descartes utilizes methodical doubt to question the existence and rational stability of as many things as he can in order to find that which cannot be doubted. His search leads him to the popular notion – *cogito ergo sum*. As far as Descartes is concerned, he is a thinking thing. But thinking things are not extended. That is, they do not have matter. As such, the "I," the "soul," the "me," for Descartes just is the mind. "I" am a "soul" which is a "mind" and it is called "me."

Sifting through the material above the following conclusions about Descartes' view of the human person emerge. First, the "I" is the soul.[116] Second, the soul does *not* give life to the body – the body is its own substance and a type of machine.[117] Thus the body and soul are separate substances and can each be understood without reference to the other. Third, any notion of the soul giving capacities, powers, or properties must be incorrect – contra Aristotelian notions of souls granting vegetative and sensitive powers.[118] Fourth, given that the soul is not extended, it follows that it cannot be located

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[115] Ibid., 123.

[116] Stewart Goetz and Charles Taliaferro, *A Brief History of the Soul* (Malden, MA: Wiley-Blackwell, 2011), 67.

[117] Ibid., 68.

[118] Ibid.

"in space."[119] Fifth, likewise, the body can be divided into parts, but the soul cannot.[120] Sixth, it follows therefore that the mind is a "thinking thing" unlike the body.[121] Seventh, sensations (such as pain) are located in the soul, because the soul feels that sensation.[122] And eighth, because of this "the soul is joined to the entire body, even though it is not located in space."[123] Descartes' influence on the modern defenders of substance dualism should be obvious.

2.3.2 The Modern Non-Physical Basis for Human Cognition: Substance Dualism – Richard Swinburne, and J. P. Moreland and Scott Rae

Given the historical importance and pedigree of substance dualism, its staying power is easily understood. Here we will look to some contemporary defenses of the notion that humans are more than their physical parts. One particularly powerful philosophical argument will continually arise can be called the "conceivability argument" – the idea that "If it is even conceivable that a mind could exist without a brain, then mind and brain can't be the same thing."[124] For, if it "is entirely conceivable that one could exist as a disembodied mind, with one's body and brain, and indeed the entire

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[119] Ibid., 70—71. "A soul is that which is non-extended and, thereby, without any shape in a given space, is not divisible into parts and is not moveable in the sense that it cannot change spatial position. Therefore, Descartes believes that a soul is not located in space, period," 72. Please note that his suggestion that the soul may possibly link to the brain (pituitary gland, specifically) seems to go against this idea of the soul be non-extended.

[120] Ibid., 71.

[121] Ibid.

[122] Ibid., 75. Descartes "believes that our pains are located in our souls, which are not themselves located in space, although they are represented as being present in the different extremities of our physical bodies."

[123] Ibid., 76.

[124] Feser, *Philosophy of Mind*, 34.

physical world, being nothing but a figment of one's imagination. But then it is

conceivable and therefore at least metaphysically possible for the mind to exist apart

from the brain. Therefore, the mind is not identical to the brain."[125] The roots of this idea

can be found in Descartes, but it has found new life with a number of contemporary

philosophers who resist the growing physicalist account of human beings. Below we will

examine the arguments of Richard Swinburne, and J. P. Moreland and Scott B. Rae.

Combined, they make an impressive case for the acceptance of an immaterial aspect to

human nature.

Richard Swinburne, the famed Oxford professor, takes it as fairly obvious that

humans are more than physical constructs. For he notes that humans engage in multiple

different mental events: sensations; thoughts; "purposings" [*sic*]; desires; and beliefs.[126]

These various events interact, somehow, with brain events. Swinburne sees an intimate

relationship between the brain and the mind, but denies that the brain is what gives rise to

the mind, hence he rejects epiphenomenalism. This form of dualism is substance dualism,

in which human persons are seen to have two parts – a physical body and a mental soul.

Swinburne's account of dualism is rather broad, as he sees any aspect of reality that

exhibits physical and mental accounts as containing a mixed mental property.[127]

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[125] Ibid., 32.

[126] Richard Swinburne, "Dualism and Personal Identity," in *Philosophy of Religion: A Reader and Guide*, ed. by William Lane Craig (New Brunswick, NJ: Rutgers University Press, 2002), 496.

[127] Ibid., 497. If something is a mixed mental property, then it exhibits both physical and mental characteristics. For example, words on a page. There is the physical paper and physically inked shapes of the letters. But there is also a mental component – the particular ordering of letters and spaces creates words and statements which have meaning in a particular language.

Looking at humans, though, Swinburne sees the soul as the "necessary core" for one's existence.128 The soul is the unifying factor for the person. Thus, the "person is the soul together with whatever, if any, body is linked temporarily to it."129 Swinburne defends this proposition in two stages: first, he notes that physical descriptions of personhood are insufficient to account for personhood; and second, the soul is a better container for personal identity than the physical body. In the first stage, the key question for the physicalist is – how much of the body must remain for me to retain my identity? The physicalist's answer would seem to be necessarily linked to the brain. For I can lose my arms and legs and still be "me." But if I suffer a serious head trauma, I may lose my sense of "self." The brain is obviously important since, for both physicalists and dualists, it is the locus of mental events, character, beliefs, desires, memory, and all other mental states. But this just raises a second question – how much of the brain can change and I still retain my identity? Swinburne considers two scenarios and concludes that any indication that people are *more than* their biological parts is enough to establish a base notion of soul.130

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128 Ibid.

129 Ibid. It should be noted that Swinburne does not want to identify people as being their souls the way Descartes does (according to Swinburne). J. P. Moreland and Scott Rae also identify people with their souls. J. P. Moreland and Scott B. Rae, *Body and Soul: Human Nature & the Crisis in Ethics* (Downers Grove: IL: InterVarsity Press, 2000), 168. Swinburne, presumably, would disagree with Moreland and Rae as well.

130 First, the brain operates in two hemispheres. Generally, the right hemisphere controls the left-side of the body, and the left hemisphere controls the right-side of the body as well as is a major contributor to speech. Further, these two hemispheres interact in a way that gives the person the perception of a near seamless experience of the world. Likewise, if some part of the brain is damaged, other parts sometimes "pick up the slack" – demonstrating the plasticity of the brain. For Swinburne, in our normal everyday experiences of the world we recognize that almost all people's brains operate according to two normally functioning hemispheres – and yet, we recognize that these two hemispheres together only make one person (p_1) . But, he asks, what would happen if we were somehow able to transplant one of the hemispheres into some other body, so that it shared a hemisphere with someone else (p_2)? Would this now be one person or two people in new bodies? Swinburne takes it that there would now appear to be two people in one body. Swinburne, "Dualism and Personal Identity", 498. What to make of the new "person"

Swinburne concludes that these thought experiments show "that there is something other to the continuity of the person than any continuity of parts of brain or body."[131] Persons simply cannot be reduced to their brain. This is because knowledge of what has happened to a person's body (or brain) is insufficient for knowing what has happened to *the person*. Thus, persons are not to be simply identified with their bodies.[132]

(p_3) who just had the two hemispheres from p_1 and p_2? Both hemispheres would (presumably) operate according to ways of each original person from whom the hemisphere was taken "and since memory and character and their manifestation in behavior are dependent on factors present in both hemispheres, we would expect each [hemisphere] publicly to affirm such apparent memories and to behave as if he had" the original characteristics. Ibid., 498—499. Perhaps the behavior of p_3 is misleading and it is not two people in one body, but a new person. Surely, the different hemispheres began their own story separate from their previous one once separated from their original companion, and once brought together they begin to pen their own story. Thus, p_3 is a new person – albeit one with a unique origin. For Swinburne, though, however one attempts to resolve the conundrum, the point remains that no matter how "much we knew in such a situation about what happens to the parts of a person's body, we would not know for certain what happens to the person." Ibid., 499. Is p_1 and p_2 now dead because of the removal of the respective cerebral hemispheres? If they are still alive, is it possible for them to remain the same person with half their brain gone? Swinburne takes another route with this scenario as well. If we split the brain of one person and put the hemispheres in two bodies (with no companion hemisphere), would we then have two people? He answers that we simply do not know. It would take many complex experiments over time to render a judgment. For example, to conclude that two people were now present, then we would need to perform a comparison of beliefs regarding: sensations, general beliefs, desires, general character of good and bad, inclinations, and patterns of limbic movement – and possibly other factors. In any case, the issue for Swinburne is not "does the split-brain experiment disprove dualism"? But rather the further question of "how many souls can share one brain"? Ibid., 506—507. Each of these questions is assuming that the person is more than the biological parts, and *that's* Swinburne's point.

The second, thought experiment for Swinburne is borrowed from Bernard Williams. Ibid., 499. Cf. Bernard Williams, "The Self and the Future," *Philosophical Review*, 79 (1970): 161—180. Suppose a mad scientist kidnaps you and is going to separate the hemispheres of your brain, putting one in one body and the other in another. One body will be tortured, the other will be made fabulously wealthy. The scientist lets you choose which body will be tortured and which will be rewarded. Further the scientist promises to abide by your wishes and you believe him. Now, the question is: how do you choose which body will be punished and which will be rewarded? Further, assume that you know all there is to know about neurobiology, would this give you insight into which body should get the money and which should be tortured? This all assumes that you recognize there will be something of a continuation of consciousness in this experiment and you want to experience the pleasures of wealth rather than the bodily tortures meted out to the "other." No matter which hemisphere is rewarded and the other punished, there is a "risk" involved. A "risk" for what? A risk that you chose incorrectly and your consciousness continues with the body that is tortured. Swinburne, "Dualism and Personal Identity", 499.

[131] Ibid., 499.

[132] "Knowledge of what has happened to a person's body and its parts will not necessarily give you knowledge of what has happened to the person, and so, that persons are not the same as their bodies," Ibid., 500.

Further, the fact that we can talk about people apart from their physical parts is sufficient to show that people are *more than* their physical parts. People are neither reducible to their body, nor is bodily continuity sufficient for people to retain their identity. In his version of the "conceivability argument," Swinburne says that the fact that a disembodied mind is a coherent concept (or at least it is not incoherent) indicates that persons can be understood as being more than their bodies.[133] Not only that, the laws of nature do not seem to necessitate that people have bodies. That is, there is nothing in the natural order that demands people *be* only physical. Indeed, there is nothing incoherent with the idea of people "switching" bodies or at least having different bodies. Thus, Swinburne concludes that since "the body which is presently yours could have been mine (logic and even natural laws allow [this possibility]), that shows that none of the matter of which my body is presently made is essential to my being the person that I am."[134]

This leads Swinburne to the second stage of his argument. Here he wants to make sense of the notion that persons do not need a material body for identity or existence. To do this he makes use of what he calls a "quasi-Aristotelian assumption." He states it like this:

> *Quasi-Aristotelian Assumption*: a substance S_2 at *t2* is the same substance as an earlier substance S_1 at t_1 only if S_2 is made of some of the same stuff as S_1 (or stuff obtained therefrom by gradual replacement).[135]

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[133] He says, "the mere logical possibility of a person surviving with only half his brain (the mere fact that this is not a self-contradictory supposition) is enough to show that talk about persons is not analyzable as talk about bodies and their parts." Ibid.

[134] Ibid., 502. Alvin Plantinga makes a similar point. See *The Nature of Necessity* (New York: Oxford University Press, 1974), chapter 6.

[135] Ibid., 503.

When this assumption is combined with the "conceivability argument" (the notion that it is logically possible a person can exist without a body) it follows that people have souls. This is because, if it were the case that I were only a physical being and then all of my physical parts were destroyed, then I would cease to exist. But if it is conceivable that I could survive such a bodily annihilation (either all at once or gradual), then I must be more than my bodily parts. But for Swinburne, this *more than* is the same as the traditional notion of "soul." Thus, our continued consciousness (which testifies to the continuity of substance) is the "immaterial core" of the person – their soul.[136]

        J. P. Moreland and Scott Rae argue that ethical actions and moral teachings bear directly upon one's views of human person-hood. As such, a proper view of *what* people are is of paramount importance. Now, Moreland and Rae hold that humans are best described by a position they call "Thomistic Substance Dualism" (TSD).[137] Their contention is that TSD provides the best basis for a Christian approach to anthropology. TSD is best understood as the human person being identifiable with their soul. Thus, they take it that an immortal and substantial soul exists which is the human person. The human body is, therefore, an ensouled structure. In general, they claim that humans are substances, not just "property-things." That is, humans are not just a collection of various properties or qualities. Stated differently, humans are not just a bundle of different characteristics. They take it that naturalism and "complementarianism" – which tends to accept naturalistic approaches to human nature – are both false. Indeed, for Moreland and

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[136] Ibid.

[137] I find it doubtful that the authors have correctly labeled their viewpoint, since Aquinas specifically repudiates some of the positions the authors take to be representative of Aquinas. See Christina Van Dyke, "Not Properly a Person: The Rational Soul and 'Thomistic Substance Dualism,'" in *Faith and Philosophy* Vol. 26, no. 2 (April 2009): 186—204.

Rae, the fact that humans are free and are able to maintain a semblance of identity over their lives, indicates (for them) that TSD has something going for it. Basically, they argue that certain features of human personhood cannot be adequately addressed by either naturalism or complementarianism, thus TSD should be adopted.

As mentioned above with Jerry Fodor, Leibniz's Law of the Indiscernability of Identicals looms large for Moreland and Rae.[138] They state LLI like this: for any x and for any y, if x and y are identical, then for any property P, P will be true of x if and only if P is true of y.[139] In other words, if you want to test to see if two things are really *not* identical then find a property true of x but false for y. The impact of this statement for Moreland and Rae is quite profound in relation to human persons. Reminiscent of the "conceivability argument," they note that in light of LLI persons cannot be identical to their bodies (which materialism ostensibly affirms) because there is no possible world in which a body could exist in a disembodied state.[140] Moreland and Rae take this as a convincing reason to give some form of dualism a fair hearing.

With these ideas in place Moreland and Rae then consider how identity can be maintained through change. Because of the nature of a substance and its relationship to its various properties, they believe that a proper analysis will show how sameness through change is possible. Essentially, during change it is the substance that remains the

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[138] Above this is simply called Leibniz's Law of Indiscernables (LLI), and for simplicity sake, I will use the same acronym.

[139] "In general, everything is what it is and not something else. Everything is identical to itself and thus shares all properties in common with itself." Ibid., 56.

[140] Ibid., 57. That is, we can imagine possible worlds were people are roaming around bodiless, but if people were identical to their bodies, then this would be quite literally unthinkable (per LLI). If people were identical to their bodies, then we should have just as hard a time imagining disembodied persons as we do triangles with more than three angles – but we don't. We can quite easily imagine people being disembodied, but cannot imagine a triangle having more than three angles.

same, but it is the various non-essential properties (e.g., accidental properties) that are gained or lost.[141] It is the substance that persists throughout the change, for indeed, "change" presupposes that *something* remains the same in the process. And that *something* for Moreland and Rae is the substance. When applied to the purposes of this project, it should be evident why dualism persists despite a strong physicalist narrative. If Moreland and Rae's accounting of how properties and substances relate is true, then if physicalism is correct, for anything that changes – no matter how minor – technically, there was no "change" but rather a destruction of one entity and the construction of a new entity. Per LLI if "I" am merely the collection of my physical parts, then if *any* of the parts that make up "me" changes, then "I" can no longer be the *same* person. Stated differently, under physicalism, there could be no "me." Moreland and Rae take this as evidence that if we can have the subjective experience of "me" throughout some change, then this is strong (if not determinative) evidence that "I" am more than mere physical parts.[142]

This type of broad "conceivability argument" is not the only arrow in Moreland and Rae's quiver. They pursue two additional reasons for thinking humans are soul-ish creatures. The first is that humans have free-will.[143] The second is the very fact we are

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[141] Ibid.

[142] Ibid., 82. Physicalists tend toward a property-view of people while dualists tend toward a substance view of people. The main difference between the property-thing view and the substance view is that the property-thing is structured as a series of external relations while the substance view is structured as a series of internal relations. The strength of the substance view is being able to account for identity through change. Its greatest weakness is that it cannot be observed or empirically verified – it relies on a thick philosophical basis that is not particularly easy to penetrate and in which its concepts are not altogether agreed upon. In other words, while there is a certain type of plausibility in Moreland and Rae's thesis, since it cannot be observed it will always be controversial.

[143] Ibid., 121—155. Note that this is in direct contrast to E. O. Wilson's position above.

able to express rational thought indicates we are more than physical beings.[144] For

rational and logical connections are distinct from physical connections.[145] This

demonstrates that it is one subject undergoing the reasoning process. If the person is only

identified with their physical parts, then the person that recognizes that "it is raining

outside" would be different than the person that recognizes "an umbrella can keep me

dry." Indeed, if strict physicalism is correct, you are a different person reading this

sentence now, than when you began this paragraph. Moreland and Rae find these types of

implications of physicalism to be absurd. But the clear alternative, as far as they are

concerned, that can account for these notions of persistence is one in which there is a

stable "self." But if there is a stable "self," then this would be the same thing as saying

the person just *is* a soul.

2.4 Brief Evaluation of Physicalism and Substance Dualism

Both physicalism and substance dualism have powerful reasons for affirming the

truth of either. Hence, someone could hold either position and they would not be

obviously irrational in believing that position. Likewise, each position has powerful

reasons for distrusting the other position. Now, both physicalists and substance dualists

alike take it that evidence for their position is evidence against the other position. For

example, physicalists believe that explaining how the brain works is sufficient for

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[144] This type of argument will be explored more deeply in the next chapter.

[145] For example, the statement "it is raining outside," is rationally connected to the statement "it is wet outside," which can be rationally connected to the statement "I desire not to get wet," which can be logically connected to the statement "an umbrella can keep me dry," which can be rationally connected to the statement "If I go outside, then I need an umbrella to stay dry." What this chain of individual thoughts express are rational and logical connections to various mental states: knowledge that rain is wet; the desire not get wet; the belief that an umbrella can keep me dry; and so on. None of these ideas are physically caused by the previous idea. For, what *physically* follows from the realization that it is raining outside? Nothing. And that's the point.

explaining thought and consciousness – thus any recourse to a "soul" is, at best, superfluous.146 Substance dualists often see something like the "conceivability argument" as sufficient reasoning that the mind / soul *cannot* be equated with the body, irrespective of what neuroscience says.

With both physicalism and substance dualism's positions presented above this last section will briefly examine what I find to be the most salient criticisms of each position. Some of these criticisms have already been addressed above, but were not developed. Nor were some of the implications of some other arguments explored. What follows is a section detailing the salient problems with physicalism, followed by a section noting serious problems with dualism. I am not claiming that any of these arguments are not unassailable and that adherents to either position may not have responses to the arguments. Nor am I saying that these arguments demand adherents abandon their chosen system. What I am saying is that I find these following criticisms sufficient to look for some other account of what it means to *be* human.

2.4.1 Problems with Physicalism

Physicalism's insistence that all reality be accounted for in third person, scientific terms, is both admirable and disappointing. It is admirable because the attempted explanation of reality is so grand. Likewise, there is something appealing about a hard-nosed empiricism – given how successful and powerful scientific studies have been, scientific methodologies seem to be *the* way to true knowledge. But it is for this reason that physicalism is also a bit disappointing. This push to say all true knowledge is based

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146 John Searle remarks, "Dualism in any form is today generally regarded as out of the question because it is assumed to be inconsistent with the scientific world view" John R. Searle, *The Rediscovery of Mind* (Cambridge, MA: The MIT Press, 1994), 3.

in scientific methodology is self-defeating. For to say that only science is the way to knowledge, must be known by some means other than the scientific method. That is, the claim that all true knowledge is born of science, is not a scientific claim – it is a philosophical claim.147 Thus, physicalism is simply too limited to fully explain what it means to be human.148

There are four main criticisms of physicalism.149 First, is the fact that physicalism has difficulty responding to the "conceivability argument." Second, is that physicalism is often charged with simply begging-the-question on trying to define what it means to be human. Third, following the second problem, is that physicalism uses the wrong methodology and philosophy to study the range of human beings. Finally, physicalism has great difficulty in accounting for rationality.

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147 Likewise, science depends on knowledge, beliefs, and principles derived apart from the scientific method. Logic, mathematics, aesthetics, morality and value judgements, and the scientific method itself are determined by means *other* than science. Philosophy, religious conviction, and societal pressures supply most of the content for these areas.

148 Addressing E. O. Wilson specifically, Marilynne Robinson notes the main problem with Wilson's project. She says, "By identifying the soul with the mind, the mind with the brain, and noting the brain's vulnerability as a physical object, he [Wilson] feels he has debunked a conception of the soul that only those who find the word meaningless would ever have entertained" Marilynne Robinson, *Absence of Mind* (New Haven, CT: Yale University Press, 2010), 111—112. Stated differently, Robinson finds Wilson's conception of what the soul *is* to be so impoverished that it can only be convincing to someone who already agrees with Wilson.

149 Marilynne Robinson notes a consequence of physicalist reductionism that could act as a fifth criticism. She says, "If the brain at the level of complex and nuanced interaction with itself does indeed become mind, then the reductionist approach insisted upon by writers on the subject is not capable of yielding evidence of mind's existence, let alone an account of its functioning. One who has inquired into the properties of hydrogen and oxygen might reasonably conclude that water is a highly combustible gas – if there were not his own experience to discourage this conclusion. As proof of the existence of mind we have only history and civilization, art, science, and philosophy. And at the same time, of course, that extraordinary individuation. If it is true that the mind can know and seek to know itself in ways analogous to its experience of the world, then there are more, richer data to be gleaned from every age and every culture, and from every moment of introspection, of deep awareness of the self" Ibid., 120.

2.4.1.1 Problem #1: Physicalism has Difficulty Responding to the "Conceivability Argument"

As explained above, one of the favored arguments by substance dualists is the "conceivability argument" – that if you can imagine the mind existing apart from the brain, then the two cannot be identical. Stated differently, if the mind just *is* the brain (or brain states), then we could not even imagine a mind existing without a brain – but we can. We can imagine angels, ghosts, gods, God, demons, spirits, and the like.[150] It thus follows that the mind and brain are not the same.[151]

A physicalist may reply, however, that the preceding reasoning is faulty because we do not have any empirical examples of minds existing without some sort of brain. Software *always* resides in hardware. Thus, it seems to be the case that the dualist is simply incorrect that the mind can exist apart from the brain, for either: 1) there actually is no mind, only brain; or 2) if there is a mind it can only exist as an epiphenomenon of

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[150] Note that none of these beings need actually to exist for the argument to work. These types of beings just have to be *possible*. In other words, to falsify the "conceivability argument" one would have to prove that we cannot even *imagine* these types of beings. A very tall order indeed.

[151] Now while this argument may be problematic for the standard physicalist, many transhumanists do not have a problem separating the mind from the brain. Indeed, this is primary assumption for Ray Kurzweil who wants to upload minds to computers. Ray Kurzweil, "The Evolution of Mind in the Twenty-First Century," in *Are We Spiritual Machines? Ray Kurzweil vs. the Critics of Strong A.I.* ed., by Jay Wesley Richards (Seattle, WA: Discovery Institute, 2002), 36—39. Ray Kurzweil, *The Age of Spiritual Machines* (New York: Viking, 1999). Ray Kurzweil, *The Singularity is Near* (New York: Viking, 2005). For Kurzweil, it is the "pattern" of the neural firings that is important for consciousness and personality. He is confident that by "mapping" the neural patterns of persons, we will then be able to recreate the same patterns in other substrates. In theory, then, Kurzweil will have "uploaded" a human mind to a machine. For Kurzweil, the mind can – in theory – exist in substrates other than biological brains, and he is awaiting the day when this becomes a reality. For Kurzweil, like a computer, the mind is just software and the brain is just hardware. Software can move to any medium so long as the hardware is sufficiently able to support it. But, as Ed Feser asks**Error! Main Document Only.** "if minds could possibly exist in physical systems other than brains, how can they be *identical* to brains?" Feser, *Philosophy of Mind*, 69 (emphasis in original). The answer, of course, is that they cannot be. Thus, in an interesting twist, at least some transhumanists, while usually physicalists, generally accept this notion that minds and brains are *not* identical – at least those that think mind uploading is possible.

the brain. Either way, *if* there is a mind it cannot exist apart from the brain, for we have no empirical evidence otherwise.

This type of response is indeed powerful, but ultimately misplaced. The substance dualist can grant the empirical evidence and point out that the conclusion does not follow from the argument.[152] Just because all of the *samples* we have are of minds existing with brains (ignoring for the moment the religious convictions to the contrary) does not *prove* minds and brains are the same *because* we can imagine the mind existing apart from the brain. In other words, just providing more examples of minds existing alongside brains does nothing to strengthen the argument that minds just *are* brains. Nor does it weaken the "conceivability argument" that minds can be thought to exist apart from brains. As such, the "conceivability argument" provides a strong argument that humans must be *more* than just their physical parts.

2.4.1.2 Problem #2: Physicalism often Begs-the-Question

From a traditional Christian perspective, perhaps the most serious critique of physicalism is based in a worldview difference. For the traditional Christian, such as myself, reality is simply *more* than the material world. Hence, when a physicalist insists that only physical / material explanations are acceptable, this seems to the traditional Christian as limiting what it is that is possible to know. Specifically, in regards to the issue we have been considering on whether humans have minds / souls, it appears inappropriate to the traditional Christian to remove a possible explanation of our

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[152] As Feser remarks, "If you really can conceive of the mind existing apart from the body or brain, it is at least plausible that this would provide evidence that they are not identical . . . . But to conceive of them existing together hardly proves that they are identical . . . . So the materialist conceivability argument cannot, in the nature of the case, prove its conclusion." Ibid., 60.

experienced phenomena from the table before the discussion begins. For the physicalist /

materialist rules out *from the beginning* any non-physicalist understanding of human

persons. But if this is the case, then *no* evidence or argument is available to convince

them otherwise. For *any* physicalist / materialist / naturalist account – no matter how

unlikely – will *always* be more probable than appeal to immaterial minds / souls. As

such, if the physicalist is asked why they do not think humans have minds / souls, they

simply respond, "because minds / souls do not exist." And when asked how they know

minds / souls do not exist, they can respond, "because we don't have any empirical

evidence for minds / souls." But if it is pointed out that minds / souls are not the sorts of

"things" that are detectable by empirical methods (precisely *because* minds / souls are not

physical), the physicalist replies "precisely! It is because minds / souls are not physical /

material we know they do not exist." But this is just to argue in a circle. The physicalist

knows minds / souls do not exist, because they are not material, and only material things

can be known to exist. Circular reasoning, however, is not an attractive way to establish

one's position.

Ed Feser remarks that physicalists tend to "give accounts of mental phenomena

that leave out everything essential to them: qualia, consciousness, thought and

intentionality get redefined in physicalistic terms, with the consequence that materialist

analyses convey the impression that the materialist has changed the subject, and failed

genuinely to explain the phenomenon the analysis was supposed to account for."[153] That

is, we have first person experience of sensations (qualia), our own consciousness, our

own thoughts, and our own intentionality. But if you review the physicalist philosophers

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[153] Ibid., 218.

above, you will see a systematic attempt to redefine or replace each of these experiences as being in some way illusory, or at least not *literally* true.[154] Thus, we can see that a problem for physicalists is that they must deny the existence of really experienced phenomena. However, the only way they can deny these phenomena is by assuming that only physicalist / materialist explanations are available. If there is *more* to the universe than just matter, then other explanations are available, but the physicalist has ruled these out before any analysis begins.

Much of the reason physicalists adopt this minimalist position is due to the rise of materialistic reductionism – the idea that large scale interactions can be "reduced" to smaller physical interactions. The operative notion here is that if we understand what is happening at the most basic of physical reality, then we can actually explain all of reality. When applied to humans, this takes the form of a biological reductionism. Thus, humans are explicable in terms of their biological parts. But as philosopher Ric Machuga explains this biological reductionism borders on incoherence. For to say that humans are nothing more than the sum of their biological parts is just to commit the fallacy of composition.[155] In other words, reductionism is attractive to philosophical materialists because of the

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[154] For example, some physicalists hold that qualia either do not exist, or are just explicable by analyzing certain brain states. Likewise, they hold that consciousness – though mysterious – can be nothing more than a properly functioning brain. And the same goes for thought and intentionality. For example, review Dennett's position on the intentional stance to see how he addresses the personal experience of thoughts being *about* something – he says that intentionality literally does not exist, but we must act as though it does to make sense of the world (i.e., we must take an "intentional stance").

[155] For example, saying that humans are *just* a collection of biological systems, would be like saying Mozart's *Requiem* is *just* a collection of musical notes and acoustic disturbances, or that this project is *just* a collection of ink marks on paper. As Machuga says, "but they are not *merely* ink lines on paper; computer software *is* a collection of electrons, but it is not *merely* a collection of electrons. In all of these cases the whole is more than the sum of its parts, and thus any reductionist explanation of music, written words, or computer software is always conceptually incoherent." Machuga, *In Defense of the Soul*, 62 (emphasis in original).

need to "fit" reality into a "causal network described by physical science."[156] However, this desire to map reality has the side effect of "reducing" all of reality to its basic "core" interactions and laws. The problem is that these philosophers and scientists *choose* that the only interactions and causal networks worth studying are physical.[157] They ignore all non-physical reality, precisely because it is non-physical, and then state that there is no non-physical reality.[158] Of course, as stated above, this merely begs-the-question in favor of philosophical materialism. It is not difficult to prove your conclusion when you assume it from the outset.

And this type of methodology is not limited to secular scientists and philosophers. For example, the Christian physicalist Nancy Murphy falls into the same trap. For Murphy, human distinctiveness from other creatures is only a matter of degree, not kind.[159] This is telling in regards to her background. Because Murphy holds to a type of (unstated) scientism, any philosophical positions at odds with scientism's orthodoxy must be wrong.[160] Because Murphy has limited herself to purely neurobiological explanations, it is no surprise that she can only find neurobiological explanations – even if it means denying something that is an ontological possibility. Namely the possibility of souls.

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[156] Feser, *Philosophy of Mind*, 146.

[157] Machuga, *In Defense of the Soul*, 25-26.

[158] "What counts as 'knowledge' for Wilson is in effect only one kind of knowledge, not all human knowledge." Steve Pope, "A Scientist's Search for Comprehensive Knowledge," in *The Christian Century* www.religion-online.org/showarticle.asp?title=84 (accessed March 27, 2012).

[159] Murphy, *Bodies and Souls, or Spirited Bodies?*, 117.

[160] For example, a plant's ability to grow and assimilate nutrients is of a different kind than any inorganic entity. Likewise, an animal that has sensory powers to various stimuli is of a different kind than a plant's ability to "react" to sunlight or claps its "jaws" shut on a fly. In the same vein, the human ability to reason and comprehend is of a different kind of activity than an animal responding to various stimuli.

Murphy, however, wants to avoid the reductionism that is prevalent among physicalist philosophers and scientists. She is after all convinced that God exists and has a special plan for humans. She states, "Thus, I maintain that science studies the whole of human life – there is no metaphysically distinct part of us that is immune from scientific investigation. However, science gives us an incomplete account of human life, an account that can only be put into perspective by a religious point of view. Science can say: in this, this, and this way we humans are like the animals, and in that way and that way we are different."[161] What is astonishing about this claim is that "science studies the whole of human life" – except when it does not and "gives us an incomplete account" of it. She may mean that science can speak to the whole of life in some ways more efficiently than others. But the problem under either interpretation is that there appear to be aspects to human nature that are not subject to scientific inquiry (as empirical research) only.[162] Further, if there *is* a metaphysical aspect to humans, then it would *necessarily* be beyond scientific investigation precisely because this *meta*physical aspect would not be empirical – metaphysical *means* "beyond / after the physical." What Murphy is saying is that because her preferred methods cannot reach *x* it must follow that there is no *x*. But this is clearly fallacious thinking.[163]

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[161] Ibid., 120.

[162] For example, logic; mathematics; metaphysical truths (i.e., there are actually other minds other than mine; the world was created longer than just five minutes ago; etc.); moral truths (which Murphy admits); aesthetic truths; and science itself (i.e., the scientific method is not *proved* by the scientific method but by philosophical reflection).

[163] As Etienne Gilson noted, just because you cannot shoot the moon with a bow and arrow, it does not follow there is no moon. Rather, you need a different method to get there. Etienne Gilson, *The Unity of Philosophical Experience* (1937; repr., San Francisco: Ignatius Press, 1999), 249.

Now the argument of the philosophical materialist is not often this blatantly question-begging. It is often quite subtle. A biologically minded materialist may say something like this. Natural selection and the phylogenetic continuity of nature has created an amazing array of species. Through millions of years of evolution, humanity, which is no more than the combination of "differential reproductive rates" and survival of the fittest, has appeared in its current form, and for the first time may be able to guide its own evolution.[164] Humans differ from plants and other animals by their parts and degree of intelligence. Plants have no "nervous system," but all animals do. Humanity's difference in intelligence from other animals is by *degree*, not *kind*. All intelligence is the biochemical reactions in the brain. Humans have a larger brain, hence greater intellectual capacity than most animals.

This (brief) scenario must assume that there is no "formal" difference between humans, other animals, and plants. Again, this simply begs-the-question. The only differences considered are "material" differences. But it is precisely whether there is a "formal" difference between humans and other objects that is at issue. It is only by assuming that there is a discrepancy between science and philosophy that this position would be adopted. If one (like Aristotle or Aquinas) rejects the notion that science and philosophy are at odds and rather sees them as complimentary, then there is no need to make those assumptions. A sufficient explanation of reality requires *both* "material" and "formal" differences.[165]

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[164] Machuga, *In Defense of the Soul*, 36.

[165] Ibid., 55 (emphasis in original).

Further, there is no "material" difference why a plant with cambium layers cannot "feel," but an animal with a central nervous system can. There may be *ontological* reasons why this is the case, but then that would be an appeal to non-material reality.166 Ultimately, this biological reductionism fails because it commits the fallacy of composition. This position amounts to saying that an object is the sum of its parts, which is false. Which is more valuable, a car that has been assembled and is ready to drive *or* a box of parts for a complete car? Is Mozart's *Requiem merely* acoustical disturbances? Are the words on this page *nothing more* than the ink and paper? If biological reductionism were true, then in the first question both cars are identical in value; the answer to the second and third questions are "yes." But because the answers are *clearly* false, then reductionism cannot be the whole story. Likewise, any attempt to reduce humanity to the sum of its biological parts is doomed for failure or worse – incoherence.167

2.4.1.3 Problem #3: Physicalism uses the Wrong Method and Philosophy

Related to the previous idea that physicalism often begs-the-question is the notion that this is due to the wrong methodology and philosophy. For example, substance dualists attempt to show that mind is non-physical. And since it is reasonable to think that mind is non-physical, the dualist will object to the materialist that will only allow

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166 Machuga summarizes this point well, "It is no use saying that nerve cells are necessary conditions for the ability to feel and since trees lack nerve cells they can't feel. The problem is that 'nervous system' *means* 'a system which is able to feel.' Or as a mocking Moliere might say, the reason animals are able to feel is because of their sentient powers!" Ibid., 39 (emphasis in original).

167 Ibid., 62. Likewise, Machuga states "It is simply silly to suggest that biology, chemistry, or physics has now *proved* that the human soul is really nothing more than electro-chemical actions of the brain or that it is merely an ephiphenominal (*sic*) (and hence not fully real) aspect of the brain. This may be true, but it cannot be discovered by these disciplines because these disciplines limit their subject matter to physical stuff from the outset. *If* it is true that feelings and thoughts are identical to certain brain processes or that they are not fully real, then this is a truth that could only be discovered – as opposed to merely assumed – by taking an ontological point of view." Ibid., 26.

physical means of investigation.[168] The materialist's approach begs-the-question in favor of materialism and fails to answer the arguments of the dualist from the start.[169] Indeed, Machuga thinks it is in principle *impossible* for science to one day prove that humans are just complex biological machines. For even if science were limited to just physical explanations, it will never be able to mitigate the distinction between *mechanistic* causes and *non-mechanistic* causes. So long as this distinction exists humanity cannot be completely reduced to a mere biochemical machine. Many events in nature simply are not reducible to mechanistic causes.[170] And since not every event is mechanical, it follows that mechanical explanations are not all there is in describing reality. And this is the problem, physicalist methodology can only look for mechanical explanations of reality. As Machuga explains, this mechanical methodology simply cannot *prove* that the mind / soul is nothing more than its biochemical parts (or an epiphenomena of the brain) because a mechanical methodology is only limited to understanding material causes – which,

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[168] Steve Pope notes that Wilson's "project rides on the dubious assumption that there is only one kind of truth, the kind of empirically established explanations attained by scientists." Pope, "A Scientist's Search for Comprehensive Knowledge." But this criticism can be applied to any system of positivism or scientism.

[169] Feser, *Philosophy of Mind*, 207.

[170] For example, where exactly any individual raindrop will fall, or how certain "S" shaped cracks form in rocks, or the individual shapes clouds take. These events are bound by the laws of nature to behave in certain ways. Hence, as the atmosphere becomes saturated rain will fail. As pressure in the crust builds rocks will crack. And as water vapor is carried along by weather patterns they will continuously change. None of these explanations or laws account for *why* these events happen the exact *way* they do. It is not necessary or essential for a raindrop to hit in a particular spot. Nor is it necessary or essential for any given rock to form a crack in the shape of an "S". Nor is it necessary or essential any given cloud look like a bunny or turtle. These events are properly called *accidental* and not essential / mechanical. Machuga, *In Defense of the Soul*, 144. Bernard E. Rollin agrees. He says, that there "is no one set of rules or laws that governs the behavior of all things, as the mechanists suggest, so even if everything is in fact made of atoms, atomic explanations do not explain function; to think otherwise is to commit a category mistake." Bernard E. Rollin, "Telos, Value, and Genetic Engineering," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 318.

again, mind / soul is not. Thus, the only way to know mind / soul does not exist is to assume it does not exist is by adopting some ontological (i.e., materialistic) stance about all of reality.171 As Bernard E. Rollins comments, mechanistic worldviews do not *disprove* teleological ones, but simply *reject* them out of hand.172

The philosopher Allen Buchanan, who is sympathetic to both physicalism and transhumanism, rejects the notion that humans are merely reducible to their biological components,173 but the question is whether he is able to avoid this position given his strict materialistic stance on human beings. It is not at all clear to me that Buchanan will be able to hold both of these propositions: 1) human beings are a collection of biological characteristics forged in the haphazard process of evolution; and 2) human beings are not reducible to mere biological characteristics.174 Buchanan's position will be explored further in chapter 4, but for now, this simply highlights the methodological problem in looking for only mechanistic causes. In the physicalist's attempt to offer a unified view of reality, they have neglected important aspects of that reality. Both empirical science and (immaterial friendly) philosophy are needed to have a truly unified vision of reality. If one views science as being in competition with philosophy (or vice versa), then one has

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171 "It is simply silly to suggest that biology, chemistry, or physics has now *proved* that the human soul is really nothing more than electro-chemical actions of the brain or that it is merely an ephiphenominal (*sic*) (and hence not fully real) aspect of the brain. This may be true, but it cannot be discovered by these disciplines because these disciplines limit their subject matter to physical stuff from the outset. *If* it is true that feelings and thoughts are identical to certain brain processes or that they are not fully real, then this is a truth that could only be discovered – as opposed to merely assumed – by taking an ontological point of view." Machuga, 26.

172 Rollin, "Telos, Value, and Genetic Engineering," 319.

173 Allen Buchanan, *Beyond Humanity* (New York: Oxford University Press, 2011), 43.

174 I commend Buchanan for wanting to avoid a "crude reductionism" but I have not seen how he avoids this conclusion given his ontological position on what comprises human beings. If humans are merely physical, then it remains mysterious how physicalistic reductionism does not result.

not understood the true complementary nature of both disciplines. 175 If something is true, then it cannot be contradicted by some other "truth" – for if something is really true, then it cannot be displaced and its opposite must be false. Of course, determining what *is* true is the difficult part.

A significant distinction physicalists often miss, which results in this collapsing of reality into only mechanistic causes, is the apparent inability to distinguish between: 1) methodical naturalism; and 2) philosophical naturalism. Modern scientific endeavors operate according to methodical naturalism. That is, modern science must assume that nature normally operates according to regular laws that govern the entire universe. According to Cambridge Mathematician John Lennox, methodical naturalism is the default position for modern science.176 And this method has been useful to distinguish between good and bad science as well as avoiding "god-of-the-gaps" reasoning. But methodical naturalism has one major drawback – it seems wedded to philosophical naturalism, which is the position that only naturalistic causes exist (i.e., there is no supernatural reality). However, Lennox disputes this, and notes that methodical naturalism is neither supportive nor hostile to metaphysical or religious beliefs. It just says this is the way we must look at the world to understand it. And science has been enormously successful taking this methodical naturalistic approach. The problem, again, is the assumption that methodical naturalism *entails* philosophical naturalism – the view,

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175 "If materialism is true and reality is a single, gapless line moving from left to right, we could only *know* that this was the case by adopting the philosophical perspective, i.e., by viewing it from the side. In an Aristotelian understanding, science and philosophy are complementary disciplines. A complete description of reality requires both. Any competition between them is the result of one or the other trespassing in forbidden territory." Machuga, *In Defense of the Soul*, 55 (emphasis in original).

176 John Lennox, *God's Undertaker: Has Science Buried God?* (Oxford, GB: Lion Hudson, 2009), 34.

that there is *only* the natural / physical world. This, though, does not follow from methodical naturalism, even though it is consistent with it. For methodical naturalism is also consistent with philosophical *super*naturalism. As Lennox notes, "science done on atheistic presuppositions [philosophical naturalism] will lead to the same results as science done on theistic presuppositions [philosophical supernaturalism]."[177] As such, to claim that philosophical naturalism / physicalism is the only compatible position with methodical naturalism, not only begs-the-question, it simply does not follow.

Given these notions it should now be clear that the way to determine if minds / souls exist is by philosophical reflection, and not scientific study. It is through metaphysics and not physics that can help us judge whether humans have an immaterial aspect to their nature. Dualistic arguments attempt to show that the mind / soul is non-physical, hence any type of physical scientific inquiry to (dis)prove the notion of mind / soul is ultimately inadequate to determine if minds / souls exist. Thus, if one insists on only appealing to empirical science to resolve the matter, then they ultimately are begging-the-question in favor of physicalism.[178] For at bottom, the real issue is the

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[177] Ibid., 37. It should be pointed out that this is *normally* the case. So long as science is looking at operational / experimental data, then either philosophical naturalism or supernaturalism should arrive at the same conclusion. However, if one is looking at origin / explanatory data, then philosophical presuppositions come into play. For philosophical naturalists there would be absolutely no "outside" influence on any such data, but for philosophical supernaturalists, "outside" influence cannot be ruled out before-hand. For example, when looking at the origin / cause of the universe, philosophical naturalists cannot allow any sort of deity to be involved as this would require philosophical naturalism to be false – and some (wrongly!) fear this would falsify methodical naturalism. Philosophical supernaturalists, however, have no problem assigning a causal explanation to a deity. And the same principles at play in the origin of the universe debate apply to the debate over a human soul as well. Philosophical naturalists seem to fear that giving credence to any notion of "soul" will somehow discredit the methodical naturalism on which modern science depends. This, however, is simply mistaken. Modern science was doing just fine (and will continue to do just fine) given the belief that humans had / have souls. At bottom, the issue is not against methodical naturalism and methodical supernaturalism – as this is not really an issue. At bottom, rather, is the difference between philosophical naturalism versus philosophical supernaturalism. And it is upon this distinction on which the whole debate lies. Ibid., 36—38.

[178] "The proper approach to the study of the mind, in the dualist's view, is via metaphysics rather than physics, and philosophy rather than natural science. For since, in the dualist's view, the arguments for

ontological differences between humans and other creatures. Comparing the biological

parts is simply inadequate to discover if humans are in anyway unique among other

biological species.179 The only way to move forward is for physicalists to adopt a new

methodology and a new philosophy.

Finally, it must be noted that there is a fundamental difference between

mechanistic functionalism as defended by physicalists and the Aristotelian and Thomistic

hylomorphism (ensoulment) that this project will defend in chapter 3. "The crucial

difference is that, like other forms of materialism, functionalism is implicitly committed

to a 'mechanistic' conception of the material world on which it is devoid of Aristotelian

formal and final causes."180 And it is this rejection of formal and final causes that is

precisely being disputed. For the argument goes, that one cannot get rid of formal and

final causes without eventually resorting to them at some point. As shown above, the

attempt to remove intentionality (which is a subspecies of final causality) cannot be

dismissed without using it. Aristotle accepted the reality of final causes because they are,

in a very real sense, obvious and self-evident. The lengths philosophical materialists and

other physicalists must go to (as demonstrated above) in order to eliminate final causality

has resulted in a position that approaches incoherence.

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dualism show that the mind is non-physical, they thereby show also that it is only via inquiry other than scientific inquiry that we are going to understand its nature, if we are going to understand it at all. For the materialist to reject the possibility of such inquiry, a priori, would simply be to beg the question against the dualist." Feser, *Philosophy of Mind,* 207.

179 Machuga, *In Defense of the Soul*, 39 (emphasis in original).

180 Edward Feser, *Aquinas: A Beginner's Guide* (Oxford, England: Oneworld Publishers, 2009), 172.

2.4.1.4 Problem #4: Physicalism Cannot Account for Rationality

The final problem with physicalism will be further explored in chapter 3. For now, however, it should be noted that physicalism has a distinct problem in accounting for rational thought. For if physicalism is true, all neurological events are merely material events and subject to material causes. That is, neuron x fires because of input from neuron y which fires because of input from neuron z and so forth. In a very real sense, the individual parts that make up the brain are all "dead" matter. In fact, as Feser remarks, various forms of identity theory is based on the idea that each "type" of mental state can be matched – one-to-one – with a particular "type" of brain state. But, the "trouble is that it seems clear that there *can't* be such a neat matching, because there can't be such a thing as a law-like correlation between mental states and brain states. . . . Any given mental state, then, is never had individually, but involves the having of other mental states as well; and it typically also involves there being rational connections between the mental states one has."[181] For example, my having the current brain and mental state that "it is raining outside" corresponds to other mental states that are currently not existing as brain states: "If it is raining, then it is wet"; "I don't like to get wet"; "Umbrellas can keep me dry"; "If I go outside while it is raining, I should take an umbrella"; etc. But this is important, because each of these statements are *rationally* and *logically* connected to each other, they are not *physically* related to each other.[182] But if there are existing mental

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[181] Feser, *Philosophy of Mind*, 68 (emphasis in original).

[182] "So there are *logical relations* between mental states that partially determine precisely which mental states one will have, if one has any at all. . . . Neurons and hormone secretions have *causal* relations between them; but *logical* relations – the sort of relations between propositions like 'It is raining outside' and 'It is wet outside' – are not causal. There seems to be no way to match up sets of logically interrelated mental states with sets of merely causally interrelated brain states, and thus no way to reduce the mental to the physical." Ibid., 68 (emphasis in original).

relationships that are not based in a physically caused relationship, then physical causality is not the whole story. Rational connections, therefore, show that the mind cannot be fully explained by a physical thesis.

Even having the "freedom" to be rational is denied under physicalism. As explored above with Wilson, free-will is an illusion – even if vastly complex. Terrence Nichols summarizes this objection well. He says that if our thoughts are merely determined by some prior neural network operation in the brain, and one's reaction "whether of agreement or disagreement, is likewise determined to be what it is. I am not really free to change my mind. So it is hard to see why I should seriously consider his argument. He cannot argue otherwise than he does, nor can I respond otherwise than I do."[183] If the physicalist's notion of rationality and free-will are correct, then arguing about competing theories is literally pointless. One cannot believe, react, or do otherwise than they do. And Wilson's suggestion that this process is so complex that it is the same as if we have freedom, may serve some psychological need to avoid some sort of biologically induced fatalistic determinism – but fatalistic determinism via neurochemistry *is* the result. And any suggestion to the contrary is either: impossible, since it denies the logical force of the argument; or pointless, since the person could not argue otherwise due to their neurological determinism.[184]

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[183] Nichols, *The Sacred Cosmos*, 147.

[184] When applied to ethical theory, the inability to express free-will implies that moral responsibility is likewise an illusion. For if you literally can do no other than kill Jack, how are we to pass praise or blame for that action? You could not do otherwise. And thus, you should bear no guilt if you killed Jack in cold blood, nor should you be honored as a hero for killing Jack before he attempts to slaughter a group of orphans. Either way, moral responsibility – the ability to act or refrain from acting – is impossible. Your neural networks are simply responding to stimulae, "you" have no real control over your (in)actions. Of course, if one is prone to take moral responsibility as a given – that is, we actually have real moral responsibility, then it would seem strict physicalism would be a problematic position to adopt. Ibid., 149.

One surprising implication of this inability to reason is that it renders science impossible. If our brains operate according to impersonal physical and chemical laws, then argumentation, experimentation, and the like can play no role in determining what one thinks about some subject. Each person would be caught within their own subjective bubble, there could be no objective knowledge.[185] For under the physicalist paradigm, there is no "mental" causation there is only "physical" causation. As Nichols puts the challenge, "there must be room in the mind for ideas to cause other ideas. Yet if every idea is correlated with a particular state of a neural network, and that state is caused by a previous state of the same network, it is hard to see how ideas can cause other ideas."[186] The impact of this line of reason is not only can we not decide, choose, or deliberate arguments and evidence, but it eviscerates one's ability to do science, which is precisely the practice of deliberating between arguments and evidence.

2.4.2 Problems with Substance Dualism

Just because physicalism has multiple problems, it does not follow that dualism is therefore true. Indeed, substance dualism has issues of its own. Physicalists have often understood these problems with substance dualism to be so significant that it warrants dropping substance dualism from serious consideration. While that suggestion may be taking things too far, it does suggest that substance dualism may not be the correct view of human nature either. Whatever advantages substance dualism gains over physicalism

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[185] Ibid., 147.

[186] Ibid., 148. Nichols provides a helpful way of considering the problem of mental and physical causation. He says to suppose that N_1 applies to a neural network state that corresponds to some particular idea, I_1. Now, suppose N_1 is the cause of N_2, which corresponds to I_2. Even if the person claims that I_1 led to the idea of I_2, this would be incorrect. It was the neural network (not the idea) that caused I_2. As such, mental causation must be an illusion for physicalist, but this means that both reason and science are impossible.

by pointing out the "conceivability argument" or that physicalism "begs-the-question," it suffers a disadvantage in having difficulty explaining just *how* it is exactly supposed to work. Just because physicalists cannot *disprove* the existence of the soul, is not evidence that a soul *does*, in fact, exist. It is the existence of a thing that requires explanation, not its non-existence.[187] As such, the burden of proof falls on the one making the positive claim of existence. In this case, if the substance dualist claims there is a mind / soul that makes up persons, then this claim must be demonstrated and defended.

As above, we are considering four primary problems with substance dualism.[188] First, is the classic problem of accounting for exactly "where" the soul resides in body. Second, is the classic interaction problem. Third, is the criticism that the soul is simply unparsimonious as scientific advancement has done away with the soul. Finally, is the problem of identification.

2.4.2.1 *Problem #1: "Where" is the Soul?*

Physicalists reject all theories of a soul and body dualism and take the primary instance of this theory to be related to Descartes. Physicalists sees Descartes as the paradigm in which to understand all forms of dualism. But for physicalists like E. O. Wilson, Descartes made a blunder by trying to locate "where" exactly the soul interacts

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[187] "Existence requires an explanation; nonexistence doesn't. In a dispute about the existence of immaterial intellects, the burden of proof falls on the person affirming their existence, not on the person who denies their existence. The mere fact that materialistically-minded philosophers cannot presently *disprove* the existence of immaterial mind is not itself an argument in favor of immaterial minds." Machuga, *In Defense of the Soul*, 102 (emphasis in original).

[188] Terrence Nichols lists what he sees as the three main reasons substance dualism has been in decline: 1) the "rise of an evolutionary explanation for human origins" shows human souls are not "unique"; 2) advances in modern neuroscience "prove" the soul does not move the body, just the brain; and 3) the contemporary theory that humans emerge from a complex "social matrix," thus demonstrating humans are not isolated beings as substance dualism suggests. Nichols, *The Sacred Cosmos*, 136—137. These are certainly concomitant reasons for dualism's lack of appeal in modern society.

with the body.189 The inability of philosophers, theologians, and scientists to discover exactly "where" the mind is supposed to be in order to interact with the body is taken by Wilson and other physicalists to be strong evidence that perhaps there is no material mind to begin with.

The problem of identifying the "location" of the soul intersects with the interaction problem and has been a stumbling block for many. For example, Anthony Kenny calls Descartes' understanding of the interaction of the mind and body one of the most "puzzling features of the Cartesian system."190 The interaction problem is discussed below, but Kenny notes that Descartes' "solution" to this was to place the soul in the pineal gland. But this just puts the problem back one step. For as Kenny remarks, this just in effect, makes the mind a little homunculus. In other words, by placing the mind in the pineal gland, the "mind-body problem is not solved, but merely miniaturized."191

Though, Wilson and Kenny's remarks are specifically applied to Descartes, the general issue of the location of the soul in the body can be applied to *any* substance dualist. For if someone wants to say that humans are of two parts – one material and the other immaterial – then it is incumbent upon that person to explain how this sort of "two-tiered" system works. Indeed, one can look the body over quite thoroughly and find no "house" for the soul to reside. For the materialistically minded philosopher and scientist,

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189 "According to the great philosopher [Descartes], the noncorporeal mind and hence the immortal soul repose somewhere in the corporeal and moral body. Its location, he suggested, might be the pineal gland." Wilson, *Consilience*, 98—99. This is clearly false. The pineal gland secretes melatonin which helps regulate the body's "biological clock." It does not act as the conduit through which the mind interacts with the body.

190 Anthony Kenny, "Descartes to Kant," in *The Oxford Illustrated History of Western Philosophy*, ed. by Anthony Kenny (New York: Oxford University Press, 1994), 121.

191 Ibid.

there is literally no "place" for the soul in the body, and the inability of dualists to locate

that "place" is taken as evidence that there is no soul. Thus, the mind-brain dualism of

Descartes and others has been rejected by the majority of scientists and philosophers of

mind / brain.[192]

2.4.2.2 Problem #2: "How" Does the Soul Move the Body?

But it is not just the location of the soul in the body that is problematic. As Kenny

noted just above, it is also how the mind and the body are supposed to interact. This is the

classic "interaction" problem.[193] If the soul is separate from the body, then how can the

body provide any information for the soul, and how can the soul control the body?[194]

Descartes' understanding of how the body operates simply cannot allow for any outside

interference from a soul. Only the physical / material interacts with the physical /

material. How then can the immaterial soul affect the material body, or the body inform

the soul? It seems it cannot – hence, substance dualists have needed to opt for alternative

epistemologies.[195]

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[192] Wilson, *Consilience*, 98. "The brain and its satellite glands have now been probed to the point where no particular site remains that can reasonably be supposed to harbor a nonphysical mind. . . . But even as mind-body dualism is being completely abandoned at long last, in the 1990s, scientists remain unsure about the precise material basis of mind. Some are convinced that conscious experience has unique physical and biological properties that remain to be discovered." Ibid., 99.

[193] Terrence Nichols calls this the "great problem" Descartes' system must face. Nichols, *The Sacred Cosmos*, 136.

[194] Kenny highlights the difficulty well, "The transactions in the [pineal] gland, at the mind-body interface, are highly mysterious. Is there a causal action of matter on the mind or of mind on matter? Surely not, for the only form of material causation in Descartes's system is the communication of motion; and the mind, as such, is not the kind of thing to move around in space." Kenny, "Descartes to Kant", 121.

[195] I have in mind systems like Augustine's "divine illumination" theory and Godfried Liebniz's "pre-established harmony" though strictly speaking, Leibniz is not a substance dualist. For Augustine's treatment on "divine illumination" see above. For Leibniz's notion of "pre-established harmony" see his *The Principles of Philosophy Known as Monadology* 50—59; 77—80.

Along these same lines, Feser remarks that if something like substance dualism is true, then the person could never know if their experiences were real.[196] In some ways, this is worse than epiphenomenalism. At least with epiphenomenal approaches, any sensate experience one has is accounted for as happening *because* of a change to the body. But for the Cartesian it is impossible to "even *think* about our mental states"[197] or qualia. As Feser says, "For if your beliefs – including your belief that you have qualia – are physical states of your brain, and qualia can have no effect whatsoever on anything physical, then whether you really have qualia has nothing to do with whether you believe you have them. . . . if property dualism is true, then you cannot even be certain that your own conscious experiences exist."[198] Surely, this is strange. Substance dualism is based on the idea that one can be thought to exist apart from the body. But, if substance dualism is correct, then it would seem to also follow that one's mind (and self) cannot be affected by that same body. For whatever sensations (i.e., qualia) are experienced by the body, or whatever the mind experiences as a sensation, literally have no connection to each other. And thus, it further follows that one cannot be aware of what is happening (at least, directly) to the body. But since it seems obvious we do know what is happening to the body, it would follow that substance dualism (at least as currently described) is likely false.

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[196] Feser, *Philosophy of Mind*, 110—111 (emphasis in original).

[197] Ibid., (emphasis in original).

[198] Ibid.

*2.4.2.3 Problem #3: The Notion of "Soul" is Unparsimonious Since Scientific
Advancement has Displaced the "Soul."*

Nancy Murphy explains this criticism well. The basic idea is that scientific explanations of the world have been slowly eroding the older notions of spirit and soul. More recently, neuroscience has nearly thoroughly displaced any explanatory need for a soul, thus leaving the soul as an unsightly wart on the nose of theology and philosophy. In other words, physicalism can account for several philosophical problems without recourse to the "soul" as an explanation. For example, scientific advancement has shown the unreliability of "philosophical intuitions." And the notion of a "soul" is almost thoroughly based in a philosophical intuition – obviously there is no empirical evidence for a soul. But the problem is that if philosophical intuitions were true, then there should not be much disagreement over what is or is not an intuition. But there is. Hence, what Descartes takes as "clear and distinct" is "obscure and muddled" to someone else. Likewise, even the idea of dualism being an intuition is suspect since many do not have this intuition.[199]

Indeed, much of the way we think of ourselves is dependent on the language that we use. Thus a study of language and its sources is needed to understand the self. In this vein, dualism seems to have been employed to explain ethical problems. To better account for moral responsibility people were attributed with souls, so that punishment and blame could be dispensed even after much time had passed. Likewise, it was and is thought that justice must be done. Yet, since justice is not always distributed equally in

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[199] Murphy, *Bodies and Souls, or Spirited Bodies?*, 113.

this world, there must be some afterlife in which justice is served.[200] And an afterlife, seems to demand that there is some immaterial soul that can live without a body.

Further, Murphy notes that physicalism is doing very well in scientific research in regard to cognitive notions and emotional health. But these scientific advancements are under physicalist assumptions and not dualist assumptions. Indeed, dualism does not seem to allow for any scientific advancement in these areas.[201] This leads Murphy to say, "Thus, however inconclusive the philosophical arguments may be, we can say that *science* provides as much evidence as could be desired for the physicalist thesis."[202] While I am not necessarily impressed with physicalism as a system, it must be admitted that there is a significant "optics" problem for substance dualism in light of physicalism's success in the scientific arena. If dualism is essential to what it means to *be* human, *but* scientific study operates under a non-dualistic assumption about human persons, *and* science seems to be successfully describing the human condition, *then* it follows that dualism is superfluous to understanding human nature. As such, relying on the notion of a soul seems to violate Ockham's Razor – the idea that one should not multiply causes beyond necessity.[203] The existence of souls, thus, seem to be wholly superfluous to having a sufficient (complete?) understanding of human beings.

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[200] Ibid., 114.

[201] Ibid., 115—116.

[202] Ibid., 116. The pitting of science against philosophy seems problematic, since science itself is dependent on certain philosophical truths (e.g., logic; mathematics; morality; and science itself). Indeed, Murphy's conclusion here could be turned around and be just as compelling – 'thus, however conclusive the scientific arguments may be, we can say that *philosophy* provides as much evidence as could be desired for the dualist thesis.' Science and philosophy are not at odds, though scient*ists* and philosoph*ers* often are.

[203] See Ernest A. Moody, "William of Ockham," in Vol. 8 of *The Encyclopedia of Philosophy*, ed. by Paul Edwards (New York: Macmillan Publ. Co., 1967), 307.

2.4.2.4 Problem #4: Substance Dualism makes Identifying Persons Difficult (if not impossible)

There is an aspect to physicalism and substance dualism that both have in common. Both hold to a mechanistic view of material nature. Both affirm there are no "final" causes in material nature. This presents a unique problem to both physicalism and substance dualism – the problem of personal identity. The physicalist can either deny that a "person" really exists (understood as a unified something), or can say that the physical body just *is* the person. The substance dualist, however, has no recourse to either of these options. Mainly since substance dualism is employed to explain how the person exists – the person is primarily a soul. Second, the substance dualist denies that the person just *is* a physical body. Indeed, recall Moreland and Rae's contention above that the person is best understood as an "immaterial soul."[204]

So, what then is "the problem of personal identity"? Remember, one of the motivating factors for adopting substance dualism is supposedly its ability to account for stability through change. When a person grows from an infant into an adult, what is it that makes them the same person? Physically, they are wholly different. But the substance dualist can claim that what remains the same is their rational soul from infancy through adulthood. Thus, there is an unbroken chain of experiences had by the soul. This is all well-and-good, but it raises a different problem. Feser states it well, substance dualism "seems to make it impossible in principle ever to know that one is dealing with the same person from day to day, or even from moment to moment. A Cartesian immaterial

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[204] Moreland and Rae, *Body and Soul*, 168.

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substance is unobservable, devoid as it is of any physical properties."[205] Because you cannot observe a soul, how do you *know* if you are dealing with the same person (or anyone at all!) from moment to moment? It is important to note that the problem here is *not* whether you can have any confidence that the person you are talking to is a friend or spouse. If that were the case, then this would just be the philosophical problem of "other minds." Rather, what is significant for our purposes is the claim "that our inability to reidentify immaterial substances over time poses a challenge to the very coherence of the idea of an immaterial substance."[206] Because the soul has no *necessary* connection to any particular body, we are left guessing whether we ever deal with the exact *same* person on a daily basis. Above it was noted that some dualists claim that minds can (theoretically) enter other bodies (i.e., "mind switching"). It is the implications of this claim that are pertinent here. What assurances do we have under dualism that the person to whom I am talking to "right now" is the same person as who I talked to yesterday? The answer, is none.

Now, a substance dualist might reply that some psychological continuity shows that the soul is the same from day-to-day and moment-to-moment. Thus, memories, behavior, and personality all contribute to our identifying an individual as *that* individual. But, again, Feser points out, the "problem with these theories is that it seems conceptually possible that more than one person could be psychologically continuous with some earlier person."[207] Even if the substance dualist insists that the issue is not

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[205] Feser, *Philosophy of Mind*, 212.

[206] Ibid., 213.

[207] Ibid., 214—215.

continuity so much, but instead "non-branching" continuity, then the problem becomes that the solution seems just *ad hoc*. Worst of all, it seems to make identity based on external factors – how others perceive you. If someone does not make a psychological connection to you tonight, then how will they know if it is *you* tomorrow? Your thoughts may continue on in one continuous stream, but for the other person, how could they be convinced that you are *you*? Again, this just seems absurd. But since that is the case, it should be taken as evidence that substance dualism has significant problems.

2.5 Conclusion

This chapter has explored the both the historical and philosophical reasons for adopting a physicalist or substance dualist approach to human persons. Both were found to have strong points in their favor as well as significant challenges to their overall coherence. Physicalism was seen to have strong scientific backing from evolutionary theory and from that several philosophical positions developed to address the human phenomenon of "mind." Whether one opts for eliminativism or functionalism, physicalism provides an attractive position for empirically inclined individuals. Substance dualism finds its strength not so much in providing scientific arguments, but rather by the strength of the philosophical case for its position. Indeed, the "conceivability argument" alone is a powerful reason to think humans are more than mere physical parts.

The next chapter will offer a mediating position between the hard materialism of the physicalist thesis and the abstract spiritualism of the substance dualist. Following the systems of Aristotle and Aquinas, I will argue for a hylomorphic view of human persons – called "ensoulment." This position avoids the difficulties raised by both physicalism

and substance dualism, and as such, provides a substantive basis upon which we can understand the nature of human beings. The second half of the next chapter will also look at the theological basis for human uniqueness and sacredness. Hence, the notions of ensoulment tied to the theological framework that humans are the *imago Dei* provides a compelling foundation for any further consideration of what it means to *be* human.

Chapter 3

Anthropological Proposal: Ensoulment

Systems that are too spiritual and ignore bodily constraints and systems that are too materialistic and ignore spiritual realities, such as free will and the soul, both fail to reach a comprehensive view of the human person.
— Terrence L. Nichols, *The Sacred Cosmos*, 127

Whoever controls the definition of mind controls the definition of humankind itself, and culture, and history.
— Marilynne Robinson, *Absence of Mind*, 32

3.1 Introduction

Both physicalism and substance dualism have impressive upshots in their favor as well as significant difficulties. Physicalism provides a strong scientific basis for placing humanity firmly within the flow of biological history. Humans are one among many species vying for survival and domination, and physicalism has a compelling narrative to explain how humans have arrived on the scene in our current state. Indeed, given this information it is easy to see why this has become the dominant view among scientists and philosophers regarding human nature. Substance dualism, on the other hand, has a strong pedigree of philosophical reflection supporting it. When a position is held by such great minds as Plato, Augustine, Descartes, and indeed most of western philosophy, then even though substance dualism may not be able to strictly *prove* there is a soul to everyone's satisfaction, it should not be laughed off as simple folk psychology. As seen in chapter 2, the "conceivability argument" all by itself provides a powerful (even if not fully compelling) reason to think that humans are more than just their bodies and brains.

Of course the difficulties with each position falls along the same lines as their respective strengths. Physicalism appears weakest in answering the "conceivability

argument" and also seems to beg-the-question *against* the possibility of there being a soul. Substance dualism has difficulty in explaining exactly how a soul and a body interact, as well as providing certainty of personal identity for other people. Stated differently, physicalism simply has not ruled out the possibility of persons having souls, and substance dualism has not (indeed, cannot!) established basic knowledge of how the soul and body relationship operates. Are we then stuck in a stalemate? Are there no other alternatives to account for the body and soul relationship which acknowledges the successes of these two rival systems but avoids each systems' weaknesses? I suggest there is.

Physicalism and substance dualism are not the only options available to examine the metaphysical basis of human nature. There is a mediating position, one that attempts to take the "best of both" and combine them into one coherent package. This chapter will expound and defend this third option, attempting to walk the tightrope between the main competitors explored in chapter 2. "Hylomorphism" is taken from the Greek terms "hyle" meaning *matter* and "morphe" meaning *form*. It is matter and form, together. If physicalism sees humans as bodies without souls (matter only) and substance dualism sees humans as souls with bodies (form primarily), then hylomorphism sees humans as a body and soul unity (matter *and* form). This position finds its roots in Aristotle and then given its Christian formulation in Aquinas. This chapter will adopt the term "ensoulment" to describe this view.[1] While what follows will be a general defense of the classical position, the term "ensoulment" is adopted because it will sound more familiar to modern

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[1] The theologian Terrence Nichols takes a similar tactic in discussing the body and soul relationship. However, instead of calling the relationship "ensoulment" he prefers the term "holistic cause." *The Sacred Cosmos: Christian Faith and the Challenge of Naturalism* (Grand Rapids, MI: Brazos Press, 2003), 167.

sensibilities and "hylomorphism" tends to sound archaic and (perhaps) intimidating. Ensoulment, then, attempts to walk the line between physicalism and substance dualism, even as it "takes fire" from both sides. Nancy Murphy offers a nice critique of the common physicalist rejection of the ensoulment tradition as based in Aristo-Thomistic metaphysics. She first notes that the rise of atomism spelled the doom for Aristotelian physics.[2] Once atomism was adopted, the notion of a soul being the form of the body – as Aristotle held – no longer seemed feasible.[3] After atomism became *the* accepted position in academia, the perennial philosophical problem of the interaction of the mind-body problem arose.[4] Murphy notes the "last gasp" of the medieval notion of soul was in the 20th century debates between the "vitalists" and the "emergentists."[5] The end result, however, is that vitalism has essentially disappeared except for a few (mainly Catholic) circles. Emergentists are just another name for physicalists. Murphy sees this historical

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[2] Once the Earth was no longer seen as the center of the universe, an Aristotelian style hylomorphic / ensouled understanding of nature was untenable – particularly in regards to the nature of "matter." Nancy Murphy, *Bodies and Souls, or Spirited Bodies?* (New York: Cambridge University Press, 2006), 41. Harold W. Baillie notes the same critique. Namely, that any Aristo-Thomistic anthropology is based on an outdated metaphysic. Harold W. Baillie, "Aristotle and Genetic Engineering: The Uncertainty of Excellence," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 215.

[3] As Murphy says, "in this new worldview there simply is no such thing as form." Murphy, *Bodies and Souls, or Spirited Bodies?*, 44. Allen Buchanan remarks that "Darwinian theory obliterated any hopes that final causation would play an irreducible metaphysical role in the evolutionary process," Allen Buchanan, *Beyond Humanity?: The Ethics of Biomedical Enhancement* (Oxford, UK: Oxford University Press, 2011), 206n6. Of course a number of theologians and philosophers would disagree with this assessment, but Buchanan's observation cannot be simply brushed aside. If Darwinian evolution is true, this could pose a serious challenge to any teleologically based metaphysical system.

[4] Murphy, *Bodies and Souls, or Spirited Bodies?*, 47.

[5] The vitalists were Aristotelian and argued that there was some force to "direct the formation of an organism and to account for its being alive." While the emergentists affirmed all that was needed was the "proper functioning of a suitably complex entity" to achieve life – life emerges and depends on a complex organization, not some other thing like a soul. Ibid., 57.

narrative pointing positively in the direction of physicalism and against the flow any sort of dualism – substance or otherwise.6

What follows, then, are three sections. The first will establish the historical backdrop for ensoulment in the thought of Aristotle and Aquinas and a modern philosophical basis for the ensoulment view. The second section will look at the theological reasons for accepting ensoulment as compatible with the Christian faith. Of course, the argument will not be content to just leave the conclusion as "ensoulment is permissible," but rather that ensoulment should be the preferred theological position. The final section will summarize the preceding remarks and contrast ensoulment against both physicalism and substance dualism. This approach should establish ensoulment as a reasonable base metaphysical understanding of human nature.7 And from this basis we will then be able to turn to the moral implications of this viewpoint in chapters 4 and 5.

3.2 Philosophical Considerations

The following will expound two sub-sections. The first will be the historical grounding for the ensoulment position. This will be accomplished by looking at the relevant classical thought of Aristotle and Aquinas. The second section will look at the issues relevant to human cognition as mainly interpreted through the admirer of Aquinas,

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6 Ensoulment is, indeed, a form of dualism. However, it differs from substance dualism in that the soul is not a separate "thing" from the matter it informs. Again, substance dualism would say that the person *is* the soul. Ensoulment says the person *is* the soul *and* body unity.

7 Establishing the metaphysical basis of humanity is important for establishing a moral system, since the moral system should be congruent with the metaphysical. As Harold W. Baillie observes, while "the notion of personhood is an ethical concern, it must also have metaphysical roots. If genetic engineering gives rise to concerns that go beyond an evaluation of the consequences of an action or the political understanding of it, then it is because such a practice would be an alteration of the metaphysical nature of the human being. Thus, if there are to be effective arguments about genetic enhancement, they must represent a metaphysical discussion about human nature." Baillie, "Aristotle and Genetic Engineering," 211—212.

Edward Feser. Specifically, this section will look at issues related to qualia, consciousness, reasoning, and intentionality. A brief examination of these issues will show the difficulty that physicalism has in sufficiently accounting for these phenomena. Likewise, it will highlight the inadequacy of substance dualism to address physicalist criticisms.

3.2.1 Historical Considerations: Ensoulment – Aristotle and Aquinas

3.2.1.1 Aristotle – The Human Soul is the Form of the Person: The Soul Cannot Exist Apart From the Body

Of interest and relevance to this project is the idea that Aristotelian physics can be rejected, but one could still accept Aristotelian metaphysics. Though Aristotle did the best he could in understanding the physical world with what he had and worked it into a complete (and elaborate) system – it is clear (as Murphy noted above) his view of physics was / is wrong. But this does not necessarily spell the end of his metaphysical system. For the principles that are undergirding a system are more fundamental an explanation than those on the surface. By analogy, the concrete foundation of Aristotle's metaphysics is still useable, but the house of straw built by his physics has blown away.

Aristotle's approach to human beings must be placed in the context of how he views the world. Aristotle was operating in the early flow of western philosophy and was a student of Plato. As such, many of the terms and concerns that Aristotle sees as being essential to philosophical reflection can be derived from his historical situation. Briefly put, Aristotle as well as the pre-Socratics, Socrates, and Plato, are responding to the arguments of Parmenides.[8] Simply stated, they are searching for the nature of "being."

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[8] It should be noted that we do not have any writings from Parmenides directly. What we have that is attributed to Parmenides comes from other authors. As such, there is disagreement among scholars about

Parmenides put forward a simple, but profound, argument for Monism – that is, all reality and all being is *one*. He said that for two things to exist, they must differ in regards to either their being or non-being. Difference cannot be due to their being, since that is what they have in common, and it cannot be due to non-being since non-being is nothing. As such, there cannot be two things at all.9 For indeed, if the issue of "being" cannot be settled, then all reality really *is* one. There cannot be different things, motion, change, generation, corruption, etc. And yet, all of these events seem real. But if Parmenides is right, this is just an illusion.

To see specifically how Aristotle accounts for motion against Parmenides it is important to look at how Aristotle understands form, matter, and privation. These three notions are the "principles of change."10 For all change involves something going from one state into another. Change involves something remaining partly the same and partly

just what *exactly* can be attributed to Parmenides. However, it seems that the argument I sketch seems as though it accurately (if perhaps too simply) represents ideas commonly attributed to Parmenides. See Patricia Curd, ed. *A Presocratic Reader: Selected Fragments and Testimonia*, trans. by Richard D. McKirahan (Indianapolis, IN: Hackett Publ. Co., 1996), 43—44.

9 Simplicius attributes the following to Parmenides, "how could what is be in the future? How could it come to be? For if it came into being, it is not, nor if it is ever going to be. In this way, coming to be has been extinguished and destruction is unheard of. Nor is it divided, since it all is alike; nor is it any more in any way, which would keep it from holding together, or any less, but it is all full of what is. Therefore, it is all continuous, for what is draws near to what is. But unchanging in the limits of great bonds, it is without start or finish, since coming to be and destruction were banished far away and true conviction drove them off. . . . For neither is there what is not – which would stop it from reaching its like – nor is what is in such a way that there could be more of what is here and less there, since it is all inviolate; for equal to itself on all sides, it meets with its limits uniformly." *Commentary on Aristotle's Physics*, 145.1—146.25 (lines 18—28; 45—48) in Curd, *A Presocratic Reader*, 47—49. Frederick Copleston summarizes this argument well: "change is impossible, because being cannot come out of not-being (out of nothing comes nothing), while equally it cannot come from being (for being already *is*)" *Greece and Rome: From the Pre-Socratics to Plotinus*, vol. 1 of *A History of Philosophy* (1962; reprint, New York: Image Books, 1993), 311 (emphasis in original).

10 Henry B. Veatch, *Aristotle: A Contemporary Appreciation* (Bloomington, IN: Indiana University Press, 1974), 31.

different.11 For example, the tree in my front yard is taller now than it was last year. Or, the leaves that were on the tree a few months ago are now no longer there. What has changed in either case is the tree's matter. It grew taller and it lost its leaves. The form of the tree – as a tree – remained the same. As the tree grows taller, it does not *become* some other plant. Likewise, as its leaves fall and regrow, it does not suddenly become something else entirely, like an animal. Thus, the form of the tree remains the same throughout the change in its matter – however, the form of the tree limits the ways it can possibly change.

The operative principle at work here is the distinction between *act* and *potency*. And it "is through the distinction between potency and act that Aristotle answers Parmenides."12 The *actuality* of the thing *being* a tree limits the thing to its "type" of existence. This limitation of its *being* is its *potentiality*. Hence the tree has the potential to grow a foot a year, but not thousands of feet a year. Likewise, its potential allows it to be used for firewood, but not to turn into a whale. As Frederick Copleston remarks, even if Parmenides remarks that these possibilities are either: 1) the result of being; or 2) coming from nothing, then Aristotle can simply respond that the privation and potentiality exhibited by the tree derives *in a subject* and not just being *per se*.13 And from this we

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11 For Aristotle, the substance of something cannot exist in varying degrees. Something either *is* or it *is not*. Using the tree as an example: either the thing *is* a tree or it *is not* a tree. It makes no sense to talk as though the thing is "kind of" a tree. However, even though the substance of a thing cannot exist in degrees, it *can* allow for divergent qualities – contrary accidents. The tree may be at one time green and another time black. It could be at one time short and another tall. Whatever the quality under consideration, it does not affect the substance of the tree. Indeed, these qualities adhere in the substance in some way that makes them applicable to the tree so that it is the same tree that expresses contrary qualities (*Cat.*, 3b.32—4b.4).

12 Copleston, *Greece and Rome*, 311.

13 Ibid. The tree has the potential to become fire, but it is not actually on fire. The tree has the potential to grow taller, but it has not yet actually grown taller. These potentialities may or may not be actually achieved. The tree may be destroyed by a zealous lumberjack and hence not grow anymore. Or it

can see that for Aristotle form is related to actuality while matter is related to potentiality.14 Thus, the principles of form and matter, and act and potency, provide a response to Parmenides.15

This has everything to do with Aristotle's understanding of human nature. The starting point for Aristotle's metaphysics is conducting an analysis of change in response to Parmenides. For the principles that emerge from that analysis are applied to all other areas of his philosophy – including human biology and psychology. Now, by analyzing change Aristotle lands on four types of causes: material, formal, efficient, and final. The material and formal causes have already been discussed. The formal cause is the *whatness* of a substance – it is the unifying factor and what makes the substance *what* it *is*. The material cause is the *of which* a substance is – it is what the substance is made *of*. In a sense, these two causes can be thought to be the most obvious since they are the ones most directly observable by our senses.16 However, these two principles are incomplete as a full explanation of things. For what is missing is the agent of change – the efficient cause. Now, the efficient cause is the *who* or *what* brings about a certain change – it is the "moving" cause of the substance.17 That is, what creates or destroys the substance. Finally, there is the final cause – which is the *purpose* of the substance. The final cause is

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may not ever be turned into kindling. However, the potential for either future (or any other) is there due to the potentiality inherent *in the tree*.

14 "And it is such an ability or capacity or potentiality for being other and different that Aristotle calls matter." Veatch, *Aristotle*, 33.

15 The response to Parmenides put simply is that it is a substance that undergoes change because of the potential of its matter to be otherwise. Ibid., 34.

16 Though form is more remote than matter and is revealed by material reality.

17 Veatch, *Aristotle*, 46.

the most obscure and hidden of the four causes, but for Aristotle it is just as much a part of reality as the others.[18]

When these four causes are combined with the correlative principles of act and potency, a more complete understanding of reality is possible. For Aristotle, all of reality is understood by the various relationships these principles allow. For from them, flow various categories that provide further understanding.[19] Likewise, we can understand human beings. For humans can be understood according to these principles and causes. Thus, reflecting on the formal cause of humanity, the key question for Aristotle emerging from the preceding consideration is "what is the soul?" (*De Anima* 2.412a.5).

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[18] We can understand these causes working together to provide a complete explanation of a substance. Consider a chair. The material cause is the wood, nails, glue, screws, etc. whatever material things go into making it a chair. The formal cause is its *chairness* – its shape, conventional and ergonomical design, etc. The efficient cause would be the carpenter who builds it. The final cause is for sitting – the chair was made *so that* someone could sit. This conventional example can be useful for explaining Aristotle's four causes. However, as we move to "natural" substances formal and final causes have become difficult (though probably not wholly impossible) to identity. Thus, we see modern scientific theory abandoning formal and final causality as too hidden to the senses and inaccessible by scientific methodology. The trend, then has been to ignore formal and final causes or simply consider them as non-existent.

[19] "The categories, considered as a classification of the ways in which things may be determinate, are thus simply a classification of the formal determinations or forms of things" Veatch, *Aristotle*, 32. For Aristotle there are eight categories for determining being, though the same information can give ten categories. These are the traditional ten categories: substance; quantity; quality; relation; place; time; position; state; action; and affection. See Aristotle, *Categoriae*.

The body is material and potential, the soul is formal and actual.[20] The material body must be organized by some principle which is the soul / form.[21] The soul unifies the body under one substance, thus the soul is the substance of a thing's essence.[22]

As previously stated, western philosophers have tended to treat the soul as a separate substance on its own. But "such a way of conceiving of the soul or the psyche is seriously misleading in Aristotle's eyes."[23] The soul is intimately connected to the body as the form of the body, not as a wholly separate thing on its own. Rather, the soul provides the foundational principle that grounds change for the subject.[24] Now, this conception of the relationship of the soul to the rest of the body has a significant implication. If the form / soul is removed from a body / thing it is no longer that thing

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[20] As Veatch states it, "if for Aristotle the soul or psyche is to be regarded as no more and no less than that formal principle of determinacy, in virtue of which living things are the kinds of things they are, then such a formal principle requires a material principle as its correlative: there must be something that is thus made determinate, or that takes on its specific character, through the reception of a form – namely, matter" Veatch, *Aristotle*, 62.

[21] "That is why the soul is the first grade of actuality of a natural body having life potentially in it. The body so described is a body which is organized" (*De Anima* 2.412a.29—30). "διὸ ἡ ψυχή ἐστιν ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ δυνάμει ζωὴν ἔχοντος. τοιοῦτον δὲ ὃ ἂν ᾖ ὀργανικόν."

[22] "Unity has many senses (as many as 'is' has), but the most proper and fundamental sense of both is the relation of an actuality to that of which it is the actuality. . . . [the soul] is substance in the sense which corresponds to the definitive formula of a thing's essence. That means that it is 'the essential whatness' of a body of the character just assigned" (*De Anima* 2.412b.8—9; 12—13). "διὸ καὶ οὐ δεῖ ζητεῖν εἰ ἓν ἡ ψυχὴ καὶ τὸ σῶμα, ὥσπερ οὐδὲ τὸν κηρὸν καὶ τὸ σχῆμα, οὐδ' ὅλως τὴν ἑκάστου ὕλην καὶ τὸ οὗ ἡ ὕλη· τὸ γὰρ ἓν καὶ τὸ εἶναι ἐπεὶ πλεοναχῶς λέγεται, τὸ κυρίως ἡ ἐντελέχειά ἐστιν. . . . τοῦτο δὲ τὸ τί ἦν εἶναι τῷ τοιῳδὶ σώματι, καθάπερ εἴ τι τῶν ὀργάνων φυσικὸν ἦν σῶμα, οἷον πέλεκυς· ἦν μὲν γὰρ ἂν τὸ πελέκει εἶναι ἡ οὐσία αὐτοῦ, καὶ ἡ ψυχὴ τοῦτο· χωρισθείσης δὲ ταύτης οὐκ ἂν ἔτι πέλεκυς ἦν, ἀλλ' ἢ ὁμωνύμως, νῦν δ' ἔστι πέλεκυς. οὐ γὰρ τοιούτου σώματος τὸ τί ἦν εἶναι καὶ ὁ λόγος ἡ ψυχή." For Aristotle the soul is related as the actuality of the thing, and its body is the potentiality. Note well that Aristotle is *not* saying the soul is the substance of the *thing*, but just the *thing's essence*. It is the soul, as the form of the thing, which determines *what* it is. As Veatch puts it, "it would be far more correct simply to regard the soul as being the 'what' or the essential principle of a living thing" Veatch, *Aristotle*, 60.

[23] Veatch, *Aristotle*, 60.

[24] When a tree loses leaves, the "soul" of the tree remains the same, thus allowing us to say that "this tree" once had leaves, but now it does not.

(*De Anima* 2.412b.14). Hence, for Aristotle the form / soul is inseparable from the body, the soul cannot exist without the body and the body cannot exist without the soul.25

For Aristotle, anything that exhibits life has a soul (*De Anima* 2.413a.21). The soul itself is a ratio or essence, it is not a subject itself.26 The "subject" is the form and matter unity – the whole being.27 This can be confusing, since by "substance" Aristotle can sometimes mean: form, matter, or the composition of form and matter.28 "Things" are studied as the composition of form and matter for us. The soul is the actuality to the body's potentiality. Thus the soul is relative to a body, though it is not a body itself. Hence, Aristotle calls the soul the "substantial form" of the body.29

Henry Veatch summarizes Aristotle's view of the soul's relationship to the body well:

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25 "From this it indubitably follows that the soul is inseparable from its body, or at any rate that certain parts of it are (if it has parts) – for the actuality of some of them is nothing but the actualities of their bodily parts" (*De Anima* 2.413a.4—5). "ὅτι μὲν οὖν οὐκ ἔστιν ἡ ψυχὴ χωριστὴ τοῦ σώματος, ἢ μέρη τινὰ αὐτῆς, εἰ μεριστὴ πέφυκεν, οὐκ ἄδηλον· ἐνίων γὰρ ἡ ἐντελέχεια τῶν μερῶν ἐστιν αὐτῶν. οὐ μὴν ἀλλ' ἔνιά γε οὐθὲν κωλύει, διὰ τὸ μηθενὸς εἶναι σώματος ἐντελεχείας." Remove the "soul" from the tree and you have kindling. Remove the soul from the person and you have a corpse. Likewise, the souls of the tree and the person are so intimately tied to the body, that once the souls are separated, the souls are no more. If the body needs the soul to unify the substance, so too, do the souls need the body to perform their proper functions.

26 "Further, since it is the soul by or with which primarily we live, perceive, and think: — it follows that the soul must be a ratio or formulable essence, not a matter or subject" (*De Anima* 2.414a.13—14). "ἡ ψυχὴ δὲ τοῦτο ᾧ ζῶμεν καὶ αἰσθανόμεθα καὶ διανοούμεθα πρώτως-ὥστε λόγος τις ἂν εἴη καὶ εἶδος, ἀλλ' οὐχ ὕλη καὶ τὸ ὑποκείμενον."

27 Veatch, *Aristotle*, 64 (emphasis in original).

28 As Aristotle explains it, "the word substance has three meanings – form, matter, and the complex of both – and of these three what is called matter is potentiality, what is called form actuality. Since then the complex here is the living thing, the body cannot be the actuality of the soul; it is the soul which is the actuality of a certain kind of body" (*De Anima* 2.414a.14—19). "τριχῶς γὰρ λεγομένης τῆς οὐσίας, καθάπερ εἴπομεν, ὧν τὸ μὲν εἶδος, τὸ δὲ ὕλη, τὸ δὲ ἐξ ἀμφοῖν, τούτων δ' ἡ μὲν ὕλη δύναμις, τὸ δὲ εἶδος ἐντελέχεια, ἐπεὶ τὸ ἐξ ἀμφοῖν ἔμψυχον, οὐ τὸ σῶμά ἐστιν ἐντελέχεια ψυχῆς, ἀλλ' αὕτη σώματός τινος. καὶ διὰ τοῦτο καλῶς ὑπολαμβάνουσιν οἷς δοκεῖ μήτ' ἄνευ σώματος εἶναι μήτε σῶμά τι ἡ ψυχή· σῶμα μὲν γὰρ οὐκ ἔστι, σώματος δέ τι."

29 Veatch, *Aristotle*, 63.

When the soul is understood in this way as being the very whatness or quiddity or substantial form of the body—as that which makes a living thing to be just that, alive or living—then there is no longer a problem as to whether or how the soul and the body can be one. As Aristotle remarks, it is no more difficult to understand how the body and the soul can be one, than it is to understand how the wax and the imprint on the wax are one. Thus as no one mistakes the imprint of the wax for a separate substance existing apart from the wax, so likewise one ought never to mistake the soul or psyche for a separate substance existing apart from the living body, the latter being simply the matter which the soul animates or renders determinate as an actual living body.[30]

This is the basic insight that separates Aristotle's view of soul from that of the substance dualist and the physicalist. The soul really exists (contra physicalists), but it exists as the *form* of a substance, not as a substance all to itself (contra substance dualists).

Before moving on to Aquinas, one final note must be made about Aristotle's account of the soul. Because the soul is so intimately tied to the body and cannot operate properly without the body, Aristotle took this as evidence that upon death (i.e., when the soul separates from the body) the soul would cease to exist along with the body / soul union that was the organic being. That is, when a tree dies it is no long a "tree" it is kindling and when a person dies it is no longer "human" but a corpse – the body is just a pile of matter with virtual forms. Aquinas, will disagree with this notion (obviously influenced from the Christian tradition of life continuing after death), and finds philosophical justification for this belief rather than punting wholly to theological authority. Veatch summarizes Aquinas' complaint well by noting that Aristotle wants to hold to the dual belief that: 1) the soul is only related to the body and cannot exist apart from it; and 2) the human rational soul can exist without matter.[31] If Aristotle is correct,

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[30] Ibid., 65.

[31] Veatch, *Aristotle*, 92—93.

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then upon death the soul ceases to exist. Aquinas will say that this is inconsistent with the notion of the rational soul. That is, if the powers of the soul do not need the body to operate, then immortality is possible since the mind can theoretically exist apart from the body.

3.2.1.2 Aquinas – The Human Soul is the Form of the Person: The Soul Can Exist Apart From the Body

Sections 1a75—78 of the *Summa Theologiae* establishes Saint Thomas Aquinas' ontological position on the nature of human beings – this section is his treatise on what it *is* to be a human being. Aquinas normally follows Aristotle in establishing the essential components of what makes one human. Like Aristotle, Aquinas holds that humans are a body and soul composite. As just seen above, the soul is to the body as form is to matter. Now, for Aquinas "soul" is a broad concept and can be understood as animate, inanimate, or as a principle of life.[32] As in Aristotle, the soul functions as a substantial form which gives humans their particular mode of being – that is, it gives us a "human" mode of existence.[33] The soul, thus, is the principle of life for a being, and it determines what that being is to be (*ST* 1a75.1). Aquinas' account of human nature, however, is not unrelated to his overall project.[34] Humans are just one aspect of the grand tapestry of reality.

To see how Aquinas' account of humanity is relevant to this project, we will explore the various components of Aquinas' anthropology. Below are three sections. The

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[32] Norman Kretzmann, "Philosophy of Mind," in *The Cambridge Companion to Aquinas*, ed. by Norman Kretzmann and Eleonore Stump (New York: Cambridge University Press, 1993), 128.

[33] Ibid., 131.

[34] As Robert Pasnau notes, "Aquinas is arguing not just a particular account of soul but for a general metaphysical theory, one that will extend over all natural phenomena, living and nonliving." Robert Pasnau, *Thomas Aquinas on Human Nature: A Philosophical Study of* Summa Theologiae 1a 75–89 (New York: Cambridge University Press, 2002), 30.

first will look at the soul and its intellectual powers. For Aquinas, the human soul is unique among all animals, because it is the human soul alone that is capable of abstract reasoning. The second section will look very briefly at the importance of the body. Unlike substance dualists, Aquinas does not think human identity is found in the soul alone. The body is important, too. The final section will bring these two principles together to show that for Aquinas, the human person is a body and soul *composite*. Likewise, this section will explore some implications of Aquinas' anthropology – particularly as it contrasts with Aristotle.

3.2.1.2.1 The Soul and its Intellectual Powers

Given Aquinas' metaphysical bent towards Aristotelianism, he is already inclined to accept Aristotle's four causes as well as the correlative principles of act and potency. When these notions are applied to humans, it follows that the form of the human is not something that is superimposed or commingled into a lump of matter. Rather, because matter cannot exist at all without some form, it follows that the beginning of the human person is when the form and matter unity begins. The soul is not like a hermit crab inhabiting the shell of the body. Without the form there *is* no body.[35] But the significance of the soul is not simply limited to giving shape to the body (though that is part of it). Depending of what type of soul informs the body will follow the various powers and capacities of that being.[36]

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[35] "The human soul does not modify something that already exists, but brings a human being into existence." Ibid., 82—83.

[36] For Aquinas, generally speaking, there are five powers of the soul: vegetative (ability to grow); sensitive (ability to feel); appetitive (ability to want/desire); locomotive (ability to move); and intellectual (ability to reason). These powers are listed in order from the lowest to the highest. Among living things we can distinguish lower souls from higher ones. For example, plants grow but do not sense in any extensive way (certainly not in the way insects and animals do), thus they have a vegetative soul. Some sponges grow

For Aquinas, the intellectual principle is the form of the body.[37] Thus, souls are the forms of bodies and give the body life. Now, humans are unique among terrestrial creatures for Aquinas, because humans alone use reason. But humans are not unique in their ability to use reason, *per se*. God and angels are also reasonable beings, but they are clearly not the same type of beings as humans are. The human intellect is the lowest of the rational souls (God is the highest, then angels, and lastly humans). Aquinas then defines human beings by mirroring the Aristotelean definition of humans as "rational animals."[38] That is humans are "sensing" animals that produce "rational" thought. And it is in this combination that Aquinas thinks properly defines humanity's place in the universe. In contrast to other animals, humans use reason. In contrast to spiritual beings, humans have a material component – bodies.

The intellect is more than physical, it is a power of the soul, and the soul is the form of the body. Because the human soul is rational, Aquinas views the human soul as subsistent – in particular the internal power of intellectual activity allows for this

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and sense but do not really show desires, thus their soul is vegetative and sensitive. Some shellfish grow, sense, and desire but do not really have powers of locomotion. Other animals exhibit all of these lower powers of the soul without intelligence. Only humans seem to reason and thus have the highest souls among corporeal beings. Humans are the highest corporeal beings, but the lowest spiritual beings. "Moreover, the only fundamental difference between the soul of a human being and the soul of a nonrational animal is that the former contains mind or intellect: 'our soul differs form the soul of an animal only with regard to mind' (3a 5.4c)." Ibid., 58.

[37] "We must assert that the intellect which is the principle of intellectual operation is the form of the human body. For that whereby primarily anything acts is a form of the thing to which the act is to be attributed. . . . Nothing acts except so far as it is in act. . . . Now it is clear that the first thing by which the body lives is the soul" (*ST* 1a76.1). "*Respondeo dicendum quod necesse est dicere quod intellectus, qui est intellectualis operationis principium, sit humani corporis forma. Illud enim quo primo aliquid operatur, est forma eius cui operatio attribuitur . . . quia nihil agit nisi secundum quod est actu . . . id quo primo operamur unumquodque horum operum vitae, est anima.*"

[38] Pasnau, *Thomas Aquinas on Human Nature*, 47.

judgment.39 For Aquinas, while the human soul utilizes a body for perceiving the world, it does not use the body to "process" that data.40 Reflecting on the nature of triangularity can be accomplished apart from a body, but *seeing* a triangle or *touching* triangular shaped things requires a body. However, if the intellect were wholly a material process, then the intellect could be "biased" in its perceptions – but it cannot be wholly biased.41 Perceptions cannot be wrong, but the judgement of what is perceived can be. As such, it appears that the distinctively vital human activity is our ability to use our intellect – our ability to reason. For Aquinas, intellectual activity is a spiritual, not a corporeal, process. Thus, the intellect does not rely on any corporeal organ to function *per se*.42

Basically, for Aquinas, the soul is not *and cannot be* corporeal, for if it were it could not consider universals. But since one of the powers of the soul, the intellect, can consider universals, it follows that the intellect (and the soul of which it is a power) is

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39 Kretzmann, "Philosophy of Mind," 132-133.

40 The powers of the soul are distinguished according to their operation as directed by the transcendent soul; "for the whole corporeal nature is subject to the soul, and is related to it as its matter and instrument. There exists, therefore, an operation of the soul which so far exceeds the corporeal nature that it is not even performed by any corporeal organ; and such is the operation of the rational soul" (*ST* 1a78.1). "*Tota enim natura corporalis subjacet animae et comparatur ad ipsam sicut materia et instrumentum. Est ergo quaedam operatio animae quae intantum excedit naturam corpoream quod neque etiam exercetur per organum coporale, et talis est operatiio animae rationalis.*"

41 For example, if I am wearing rose tinted glasses the world takes on a faint reddish hue, and certain items that are the same color as the glasses become invisible. Now, if the intellect could be deceived in a similar manner as my eyes, then the mind would not be able to perceive the deception. But if that is the case, then the mind could literally not know certain material things due to this bias. Just like my inability to see shades of red, the mind would not be able to discern aspects of physical reality. But the mind *is not* limited in this way – the mind can attend to all material natures and abstract various concepts from material nature. But if the intellect can do this, then the intellect itself is not dependent on a bodily organ. When "a sensory organ is 'biased' in its perceptions in a certain direction, there are certain things it is incapable of perceiving. . . . But if the intellect depended on some material organ for its operation, then it would be 'biased' in the direction of that kind of matter . . . in that case there would be certain material things whose natures it could not grasp. . . . But the intellect is not limited in the sorts of material natures it can grasp. Therefore, it must not depend on the operation of any material organ." Feser, *Aquinas*, 152—153.

42 Kretzmann, "Philosophy of Mind," 136.

immaterial. Corporeal things have determinate natures, but intellect does not, thus it follows the intellect (i.e., power of the soul) cannot be corporeal. For a physical mind results in absurdity.43

Since a physical mind results in absurdity, the only alternative is to affirm that the mind is non-physical – it is immaterial. Because of this conviction a couple of implications follow. First, "knowledge" is the mind's possession of the forms of various things. This is because the form / matter unities that make up the world of experience can only have one substantial form.44 Material bodies can only have one substantial form informing it, but the immaterial mind can consider many forms without being any of them.45

The second implication is the answer the question: what makes my thoughts *mine*? Pasnau notes that the most "straightforward" response would be to follow Plato and say that the human being just *is* an "intellective soul." The problem for Aquinas,

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43 If "the intellect were material and thus became a cat when thinking about cats, it could never think about anything else ever again (whether triangles or whatever) since it would in that case not exist anymore – the parcel of matter composing it, having now become a cat, would no longer be an intellect at all. . . . Similarly, if the intellect were material it could never think about cats and triangles *at the same time*, for in taking on their forms (as it does in grasping them) it would then *become* both a cat and a triangle at the same time, which of course nothing can be. . . . The point is not so much that the intellect can know *all* material things, but rather that it can know enough of them to justify us in inferring that it cannot be material. . . . Insofar as it can take on the forms of multiple things, both over time and at a particular moment, the intellect has a potency that nothing material has or can have." Feser, *Aquinas*, 154—155 (emphasis in original).

44 If material bodies had more than one substantial form then there would be conflicting powers of operation, and it would violate the law of non-contradiction – something cannot be both *A* and *not-A* at the same time and in the same sense. But if a material body could have two (or more) substantial forms, then it would follow that that material body would be both *A* and *not-A* at the same time and in the same sense. The immaterial mind, however, does not have this limitation – it can possess "a thing's form without itself being that thing."Ibid., 157.

45 Feser remarks that this shows the intellect has "potencies" material bodies lack. "The force of the argument depends instead on the way in which . . . the intellect takes on the form of the thing it understands in the very act of understanding it. This capacity shows that the intellect has 'potencies' which material things do not have (*In DA* III.7.680), and in particular that the intellect can, unlike material things, take on the form of other things . . . without losing its own form (*SCG* II.49.3)." Ibid., 153.

however, is that he has already rejected Plato's answer (*ST* 1a75.4). Aquinas accepts that the mind needs the body for sensitive experience of the world – the body supplies the mind with content for it to consider. Thus, the body *must* be part of what it means to be human.[46] As such, to answer the question of what makes my thoughts *mine*, the answer is that it is the mind / body composite being that is thinking.[47]

3.2.1.2.2 The Body

In developing a complete understanding of human beings, Aquinas certainly prioritizes the role of the soul. It is, after all, the substantial form of the person and the determiner of a thing's essence. However, concentrating on the soul alone would be a mistake, the body is important as well. Aquinas is trying to identify what it means to *be* human. Since Aquinas thinks the definition of humans being "rational animals" as appropriate, it follows that the fact that humans are *animals* presupposes certain qualities. Namely, humans have sensory capacities as well as the potential for local motion. But this is only possible if humans have bodies. Remember, for Aquinas, humans are a body and soul *composite*.[48]

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[46] Pasnau concludes, "because I engage in intellective cognition, and yet am not identical with my intellect, my intellect must be part of me; this is the only plausible way in which *I* could engage in intellective cognition. So I have a bodily part and an intellective part; to speak of them as parts of me entails that they are somehow unified, coming together as parts of a single thing, me." Pasnau, *Thomas Aquinas on Human Nature*, 75 (emphasis in original).

[47] You (as a mind / body unity) have your own thoughts, and I have mine. If humans were souls only, there would be no way to separate the thought from the person, and thus if two souls believed the same proposition (i.e., thought), there would be no way to tell one soul apart from the other. If two souls had no difference in their thoughts, then there would be no principle of differentiation between them – thus there would only be one soul, not two. If those two souls, however, are unified with a body, then it would not matter if there were no difference in their thoughts for each soul would retain its own unique identity because of its body.

[48] "Yet although material causes take a back seat to formal causes, still no definition of human beings would be complete without reference to the bodies from which we are composed." Pasnau, *Thomas Aquinas on Human Nature*, 8.

The body, for Aquinas then, is unified by the soul. For it is the soul that makes

something *be* what it is. Likewise, souls need bodies as a principle of differentiation,

bodies only accommodate one substantial soul at a time.[49] It follows, therefore, that there

can only be one subsistent form for each body.

Likewise, human souls need the body in order to operate naturally and properly.[50]

Aquinas remarks, the human soul:

> holds the lowest place among intellectual substances [i.e., God and angels];
> inasmuch as it is not naturally gifted with the knowledge of truth [i.e., the mind is
> originally without any content], as the angels are; but has to gather knowledge
> from individual things by way of the senses . . . . Now the action of the senses is
> not performed without a corporeal instrument. Therefore it behooved the
> intellectual soul to be united to a body fitted to be a convenient organ of sense (*ST*
> 1a76.5).[51]

Put simply, it is proper for the human soul to be united to the body which can provide

sensory information about its environment. The operations of the mind may not be tied to

bodily organs, but the content of what the mind considers certainly is. Because sensation

is so intimately connected to the body – indeed, it is impossible without a body – there is

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[49] As Aquinas says, "it is quite impossible for several essentially different souls to be in one body. . . . [For] an animal would not be absolutely one, in which there were several souls. For nothing is absolutely one except by one form" (*ST* 1a76.3). "*omnino impossibile videtur plures animas per essentiam differentes in uno corpore esse. . . . quia animal non esset simpliciter unum, cuius essent animae plures. Nihil enim est simpliciter unum nisi per formam unam.*"

[50] Though Aquinas prioritizes the soul as the substantial form for the being, as well as the principle of life, the human soul would be impoverished without the body. For though the soul and its intellectual powers are far "grander" than anything the body can do, the intellect cannot properly function without content. If the mind has no content (i.e., forms or images) with which to consider, it cannot function. And the mind cannot retrieve content on its own, it must be given objects of consideration. These objects could be given by God, but mostly it is supplied by sensory experience. Humans need the senses to gain knowledge, unlike angels which do not. Further, God cannot be properly said to "gain" knowledge. Thus, if humans are to gain knowledge, then the human mind needs to experience the world around it. And this is done through a sensing body.

[51] "*infimum gradum in substantiis intellectualibus tenet; intantum quod non habet naturaliter sibi inditam notitiam veritatis, sicut Angeli, sed oportet quod eam colligat ex rebus divisibilibus per viam sensus, . . . Actio autem sensus non fit sine corporeo instrumento. Oportuit igitur animam intellectivam tali corpori uniri, quod possit esse conveniens organum sensus.*"

a strong materialistic component in Aquinas' anthropology.52 Thus, in a very real sense, Aquinas would have no quarrel with the modern day physicalist who wants to explain the neurological implications of sensory experience. For this, indeed, is a physical process. What he would object to is the insinuation that this analysis would comprise the entirety of human cognition.

In examining the nature of "human beings" Aquinas is specifically asking a *theological* question, and thus "supposes that an answer must be given in terms of the human soul, focusing on the human body only as it relates to soul."53 The soul is primary for Aquinas, the body is secondary. This, however, should not imply that the body is unimportant, for as shown above, the body is essential to human knowing and human *being*. We can now summarize Aquinas' position on the body. To begin, Aquinas notes that things which do not have the principle of life within themselves can be generated and corrupted. The body can be generated or corrupted, because it does not have the principle of life in itself. But things that have the principle of life within themselves can only be generated or corrupted *per se*. For things that can be generated or corrupted *per se*, are substances. And substances either *are* or they *are not*. As such, the soul either exists, or it does not exist – for Aquinas, it makes no sense for the soul to "sort of" exist. From this it follows that accidents can be generated and corrupted since accidents exist only in

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52 This component is so strong that Pasnau calls Aquinas a "semimaterialist." "Aquinas thinks of sensation as an operation consisting entirely of various bodily parts undergoing change in various ways. There is no further, nonbodily or spiritual operation involved. Aquinas is what I call semimaterialist, in that he believes *some* intentional states, and *some* forms of conscious experience, can have explanations that are, in our modern sense, wholly physical." Pasnau, *Thomas Aquinas on Human Nature*, 59 (emphasis in original). Upon seeing a book on the table, my senses are bombarded by the physical realities of the book on the table. Its smell, color, shape, feel, etc. is a purely physical process. For without the physical senses I could not be cognizant of a book on the table.

53 Ibid., 26.

substances. Likewise, the souls of plants and animals can be corrupted because they are tied so closely to their matter. Plant and animal souls could almost qualify as accidental substances. Human souls, however, are subsistent within themselves. And as discussed above, subsistent forms cannot be separated from themselves. The body is important, because the body is the principle of differentiation between substantial souls and it provides sensory experience of the world. The body is essential to what it means to *be* human. Even though Aquinas believes the soul can exist without the body, the soul is *incomplete* without the body. But if the soul is incomplete without the body, then likewise the body is incomplete without the soul – indeed, there is no "body" at all without a soul. As such, the body is not all that is needed to have a *complete* understanding of what it means to *be* human. Humans are a body and soul composite.

3.2.1.2.3 The Unity of Soul and Body

Contrary to the thesis expounded by J. P. Moreland and Scott Rae in chapter 2, Aquinas "explicitly and vehemently denies that human beings should be identified with their souls."[54] Human persons are the unity of a body and soul, they are not to be equated with either *just* the body or the soul. In general, humans are souls, but any particular human is a body and soul unity. The relationship between the soul and body can be stated this way: the soul and body are united, but the body needs the soul to exist in a way that the soul does not need the body. The body without a soul is a corpse. As such, Aquinas is not a substance dualist, but he shares a "key assumption" with them. That is, he does think the soul is an incorporeal substance. This seems to "amount to a kind of dualism: a

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[54] Ibid., 46.

commitment not to dual substances, exactly, but to dual properties, perhaps, or to dual

kinds of entities."55

The "soul" is the first principle of life. For the soul is responsible for giving *life* to

the person, and it also "contributes to the *purpose*" of the person.56 As the principle of

life, the soul is understood as the act of the body, but the soul is not a body itself. Rather,

the soul is subsistent in itself since the act of the intellect is itself incorporeal. The soul

has multiple powers that inform the body with the primary power being reason.57 For

Aquinas, the soul / mind / intellectual power is the substantial form of the body. It gives

the body life, but it also has an operation that allows it to survive the body. Namely,

rationality itself – the principles of intellectual thought – are not bound to matter *per se*.58

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55 Ibid., 70.

56 Ibid., 29 (emphasis in original).

57 For Aquinas, reason is the definitive difference that separates humans from other animals. It is why he takes it as sufficient the definition of human as "rational animal." "Animal" is the genus, and "rational" is the species (*De Ente et Essentia* [*On Being and Essence*] 3.1—2). As Aquinas puts it elsewhere, "the principle of intellectual operation which we call the soul, is a principle both incorporeal and subsistent. . . . by means of the intellect man can have knowledge of all corporeal things. Now whatever knows certain things cannot have any of them in its own nature; because that which is in it naturally would impede the knowledge of anything else. . . . Therefore, if the intellectual principle contained the nature of a body it would be unable to know all bodies. . . . Therefore, it is impossible for the intellectual principle to be a body. . . .
Therefore, the intellectual principle which we call the mind or the intellect has an operation *per se* apart from the body. Now only that which subsists can have an operation *per se*. For nothing can operate but what is actual: . . . We must conclude, therefore, that the human soul, which is called the intellect or the mind, is something incorporeal and subsistent" (*ST* 1a75.2). "*quod est principium intellectualis operationis, quod dicimus animam hominis, esse quoddam principium incorporeum et subsistens. . . . enim quod homo per intellectum cognoscere potest naturas omnium corporum. Quod autem potest cognoscere aliqua, oportet ut nihil eorum habeat in sua natura, quia illud quod inesset ei naturaliter impediret cognitionem aliorum. . . . Si igitur principium intellectuale haberet in se naturam alicuius corporis, non posset omnia corpora cognoscere. . . . Impossibile est igitur quod principium intellectuale sit corpus. . . .*
Ipsum igitur intellectuale principium, quod dicitur mens vel intellectus, habet operationem per se, cui non communicat corpus. Nihil autem potest per se operari, nisi quod per se subsistit. Non enim est operari nisi entis in actu. . . . Relinquitur igitur animam humanam, quae dicitur intellectus vel mens, esse aliquid incorporeum et subsistens."

58 "The rational soul is fundamentally different from other human powers, including the sensory soul, in that it alone is entirely immaterial. The other powers are part of the material world and their explanations are material explanations. Aquinas infers from the rational soul's strict immateriality that it could not be derived from the heavenly bodies.

Since the intellect is not bound to matter *per se* it can exist apart from matter. Also, since humans exhibit this type of intellectual capacity it follows that the human mind can exist apart from the body – even though the state of a soul without a body hampers the mind's ability to perceive.59

The soul and the body are not two substances working at cross purposes. They are two metaphysical principles that comprise the human person. These two principles, however, do have their own functions. The soul is the unifying, intellectual, directive, and willful principle. The body is the instrument of sensation and physical aspect of the person. Sensation is not merely a bodily act, it is in harmony with the soul. Sensation is an aspect of the whole person, not just either of the constitutive principles.60 However, just because a body and soul unity is able to sense its environment, it does not follow that the soul of that being is subsistent and able to exist on its own.61 Intellect and reason is

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Aquinas thinks that phenomena like magnetism, nutrition, and sensation cannot be explained by earthly corporeal is making an irreducibility argument of the sort that modern dualists often make. The qualities, much like some now think that consciousness cannot be explained by neuroscience or computer algorithms . . . . It must have seemed simply inconceivable that any combination of mere heating, cooling, and so on, could result in, say, sensation." Pasnau, *Thomas Aquinas on Human Nature*, 64.

59 This is a reason why Aquinas finds the doctrine of the resurrection so important. The human soul may be able to exist apart from the body, but it is incomplete until reunited with the body (*ST* Supp.75.1).

60 "Soul and body do not share in the activity of sensation in the way that two distinct agents cooperate in doing one thing. Sensation is not like many men pulling a boat; instead, the soul and the body together make up on agent performing one activity." Pasnau, *Thomas Aquinas on Human Nature*, 61.

61 "The fact that the sensory soul of an animal is not subsistent entails that the sensory part of the human soul is not subsistent, which means that its operations involve the body. (If this entailment did not hold then it would be absurd for Aquinas to insist on the fundamental similarity between human and animal sensation.) So by studying the way in which sensation involves the body, in both human beings and animals, we can understand the degree to which Aquinas accepts materialism with regard to human sensation. And this in turn sheds light on the sense in which Aquinas rejects materialism with regard to the human mind.
I believe that Aquinas takes sensation to be wholly bodily process." Ibid., 58—59. Sensation is possible only for beings with physical bodies, and souls oriented to perceiving sensation. Rocks have forms, but no sensitive soul. This is why Pasnau notes that Aquinas rejects strong forms of materialism / physicalism – these philosophies disregard the role of a soul in sensing physical reality. For if materialism is correct, then if animals can sense a tree, then so can rocks, for both are physical. The only difference is

needed to rise to the level of subsistence. The soul needs the body to perceive the world,

and the "closer" the soul is to the body in its operations, the further that soul is from

subsistence.62 For rational souls, however, subsistence is practically assured because the

rational soul has its own *per se* operation, namely the ability to reason. The soul is a form

that "surpasses matter" and, thus, "can potentially exist apart from matter."63 For it is the

soul that is the principle of life, but the body is the principle of differentiation for the

soul. It is *this* particular body that sets *this* soul apart from *that* soul with *that* body. Thus,

the soul can be separated from the body and still exist, but it will remain incomplete until

(or unless) reunited with the body. That is, the human being is a body and soul unity, but

the human soul can survive the death of the body.64

Aquinas is neither a substance dualist nor a strict physicalist, even though he

develops elements central to both of these positions. Similar to the substance dualists,

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the complexity of the physical parts. For Aquinas, it is not the complexity that is at issue so much, but rather sensation is different in *kind* than two material things coming together. The baseball bat does not feel pain upon hitting the ball, but the batter does when hit by a pitch.

62 As Aquinas (following Aristotle) puts it, ". . . of the operations of the soul, understanding alone is performed without a corporeal organ. On the other hand, sensation and the consequent operations of the sensitive soul are evidently accompanied with change in the body; . . . Hence it is clear that the sensitive soul has no *per se* operation of its own, and that every operation of the sensitive soul belongs to the composite. Wherefore we conclude that as the souls of brute animals have no *per se* operations they are not subsistent (*ST* 1a75.3). "*quod solum intelligere, inter opera animae, sine organo corporeo exercetur. Sentire vero, et consequentes operationes animae sensitivae, manifeste accidunt cum aliqua corporis immutatione; . . . Et sic manifestum est quod anima sensitiva non habet aliquam operationem propriam per seipsam, sed omnis operatio sensitivae animae est coniuncti. Ex quo relinquitur quod, cum animae brutorum animalium per se non operentur, non sint subsistentes*."

63 "In saying that the human soul is subsistent, Aquinas means that the soul is a form that somehow surpasses matter, meaning that it can potentially exist apart from its matter – that is, apart from the body. This requires . . . that the soul has an operation that transcends matter." Ibid., 57. It must be stated also, that even though the human soul is a form, it is not like an "angelic form." Angelic forms have their own rational existence, but are not tied to a body in the way that *human* souls are. To paraphrase Aquinas, human souls know by bodily senses, but angelic forms know directly and intuitively (*ST* 1a75.7). Remember, for Aquinas, it is part of the definition of "human" to be bodily.

64 Kretzmann, "Philosophy of Mind," 135.

Aquinas holds to the notion that humans do, in fact, have immaterial souls. He disagrees with substance dualists, in that the soul is not a different kind "of property or entity."[65] Similar to the physicalist, he grants an essential role to the body – humans are essentially bodily creatures. But he disagrees with physicalists that wish to reduce humans to simply their material parts. Humans are more than their matter. The fact humans have a rational soul is proof, for Aquinas, that humans have an incorporeal and subsistent aspect to their being.[66] Interestingly enough, neither incorporeality nor subsistence alone would be necessarily incompatible with strict physicalism. For depending on how one understands the term "forms" it follows that all forms are incorporeal – and if the term is understood in a metaphorical sense, this is compatible with physicalism. Likewise, subsistence is not necessarily incompatible with physicalism either, since "anything with its own operation is weakly subsistent."[67] Under these considerations a contemporary physicalist could say that the "soul" is really just a particular brain structure or neural function. This conception of the soul is incorporeal, but not subsistent. Further, the "mind" since it would be an operation of the brain, would not be incorporeal, but it would be subsistent. Thus, we can now see why Aquinas' view that the soul is both incorporeal and subsistent is incompatible with contemporary physicalism. For Aquinas, it is the *soul* that performs the functions of *mind* – the mind is an aspect / power of the soul. Likewise, the soul is the substantial form of the body. Hence, there can be no real separation between the "soul" and "mind" and "subsistence." To separate these is to court incoherence as far as Aquinas

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[65] Pasnau, *Thomas Aquinas on Human Nature*, 72.

[66] Ibid.

[67] Ibid.

is concerned.68 Thus, Aquinas wants to hold a middle-ground between substance dualism

and physicalism, since to fall one way or the other is to end in incoherence.69

Again Aquinas' position entails that the intellect has an "act" apart from the body,

but this is possible only if it can subsist on its own – thus the intellect (i.e., soul) can

subsist apart from the body. Souls naturally unite to bodies but can be separate from

them. Each human being is individuated by their matter and their intellect, and these

intellects differ because each informs its own matter (*ST* 1a76.2). Likewise, since reason

can operate *per se* without the body, it grants the human soul the ability to exist apart

from the body (*ST* 1a77.8). These notions of the soul separating from the body,

functioning apart from the body, and ultimately being reunited with the body coincide

with Aquinas' theological convictions of an afterlife. In traditional Christian theology,

souls that depart from the body await the day of redemption (Dan. 12:2-3; John 5:28-29;

1 Cor. 15:12-23; 2 Cor. 4:14; 1 Thess. 4:13-18). As such, Aquinas' position allows for a

traditional understanding of the role of a soul in the economy of salvation and

redemption.70 A substance dualist allows for this as well, but the doctrine of the

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68 "So Aquinas is not a dualist, not even when dualism is understood along the lines of property dualism rather than substance dualism. Human beings are not the composite of two fundamentally different kinds of properties or entities. But of course Aquinas is not a materialist, either. He rejects materialism because he believes the rational soul is both incorporeal and subsistent. Its incorporeality alone is not inconsistent with materialism, because all forms are incorporeal . . . . Its subsistence alone is not inconsistent with materialism, because anything with its own operation is weakly subsistent . . . . A modern materialist, for instance, might identify the soul with a certain brain structure or functional disposition. So defined, *the soul* would be incorporeal but nonsubsistent (inasmuch as structures and dispositions exist in a subject), and *the mind* would be corporeal and subsistent (inasmuch as the mind would be corporeal organ, the brain, actualized by soul). Aquinas would reject this form of materialism because he believes that the soul alone performs the functions of mind: the mind is a form, a subsistent form, and hence and incorporeal substance." Ibid., (emphasis in original).

69 "Aquinas believes not just that the form-matter relationship offers the *best* explanation of this unity, but that it offers the *only* workable explanation. The challenge he extends, then, is not to show that his Aristotelian account is wrong, but to offer a coherent alternative." Ibid., 75 (emphasis in original).

70 "Aquinas believes that the relationship between the human soul and the human body is fundamentally the same as all form-matter relationships. Soul actualizes body, with respect to both

resurrection remains mysterious. For if the person is identified with *just* their soul, what is purpose of reuniting the soul with a body? Further, Aquinas' position stresses the importance of the body for the person to be identifiable to others as well as naturally interact with the world. Physicalists allow for this as well, but their denial of a soul causes both theological and philosophical problems as far as Aquinas is concerned. Hence, by taking this middle path, Aquinas believes he can appropriate the strengths of both substance dualism and physicalism, but avoid their weaknesses.[71]

3.2.2 Philosophy of Mind – A Modern Interpretation

As discussed in chapter 2, the "conceivability argument" holds that if the mind and brain are identical, then it is not just physically impossible for the mind to exist apart from the brain, but it is also *metaphysically* impossible.[72] A number of considerations can be explored demonstrating the varying degrees of this metaphysical impossibility. Specifically, four areas are commonly examined: qualia; consciousness; rationality; and intention. Each of these progresses from being most explainable in physicalist terms to least explicable in physicalist terms. That is, while qualia can provide good reasons for

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existence and the various operations of life. The only distinctive feature of this relationship in the human case is that the rational soul has an operation that surpasses matter, an operation that need not (and indeed cannot) be performed by the human body. This difference has the important consequence of making it possible (or so Aquinas believes) for the rational soul to survive when separated from the body. But the difference is not a deep metaphysical one. The human soul is a form just like other forms, and is different only in the extent of its operations. Moreover, because form or actuality is what is fundamental in nature, there is nothing peculiar or unnatural about a form's existing on its own, independently of matter." Ibid., 72.

[71] "Aquinas's hylomorphism aims to replace materialism with a more adequate metaphysics, while at the same time avoiding any sort of mind-body dualism. Far from being an embarrassment to this hylomorphic analysis, his conclusions about the rational soul's status are an immediate consequence of the analysis." Ibid.

[72] Edward Feser, *Philosophy of Mind: A Beginner's Guide* (Oxford, UK: Oneworld Pub., 2006), 31.

thinking the mind and brain are not identical, it falls short of sufficient "proof."

Consciousness seems to be more difficult to explain than qualia, but it is still insufficient to disprove physicalism. Rationality and intentionality, however, provide strong reasons for doubting the physicalist's narrative. This is of central importance in the transhumanist debate, since a number of transhumanists hold that rationality is strictly a physical phenomenon. This has implications for artificial intelligence research as well as a common transhumanist program to be explored in chapter 6 called "mind uploading."[73] But, if *in principle* mind as expressed in rationality and intention *cannot* be "described by the laws of physics," then this would be grounds for questioning the wisdom of pursuing certain technologies – especially if those technologies cannot achieve their desired outcomes without rationality being accounted for in a physicalist paradigm.[74] While qualia[75] and consciousness[76] are interesting in their own right and point to the immateriality of mind, it is rationality and intentionality to which we turn our focus.

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[73] Transhumanist Ralph C. Merkle in discussing the possibility of "mind uploading" makes the logic of this position explicit: "Your brain is a material object. The behavior of material objects is described by the laws of physics. The laws of physics can be modeled on a computer. Therefore, the behavior of your brain can be modeled on a computer. Q.E.D." Ralph C. Merkle, "Uploading," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 157.

[74] This is not to say that the end-goals could not or should not be pursued, but rather that the proposed method would need to change. For if *in principle* mind cannot be expressed in only physical terms, then any technology based on that premise (and however impressive it may be!) will *never* be successful in holding mind in a purely physical form. For example, if mind cannot be fully physical, there could never actually be a *true* artificial intelligence in the strong sense. At best we would only be able to achieve very advanced virtual intelligences (or weak AI).

[75] Qualia are those experiences that make up the "*something that it is like to be in that state*." It is to be aware of some being. It is the experience one has upon one of the bodily senses being activated. Jaegwon Kim, *Philosophy of Mind*, 2nd ed. (Cambridge, MA: Westview Press, 2006), 207 (emphasis in original).

[76] Jaegwon Kim says that to be conscious is to be awake or aware. For Kim, "consciousness is, presumptively, a central and crucial feature of mentality – or at any rate the kind of mentality that we

3.2.2.1 Reasoning and Thought[77]

The arguments put forward regarding reason and intentionality – both under a physicalist understanding and ensoulment understanding – are independent of the conclusions derived from considering qualia and consciousness, *per se*. Indeed, part of the argument that ensoulment puts forward is that *human* consciousness is largely comprised of reason and intentionality – which is inherently non-physical. Intentionality will be considered in the next section, below will be a brief examination of how reason is different than causes, the computational and representational theory of thought's (CRTT) inability to account for reason and logic, and how computation cannot be mind-independent.

3.2.2.1.1 The Difference Between Reasons and Causes

The issue at hand is that physical causes produce physical effects and these effects are different than what happens at the rational level.[78] The question, however, is if

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possess and value." Likewise, he holds that consciousness is indicative of one being aware of one's own mental state. A conscious mind *knows* it is conscious. Ibid., 205—207.

[77] It seems that most contemporary philosophers of mind think qualia and consciousness pose the most devastating challenge to the physicalist narrative of mind. The ability to reason via logic and the capacity for intention are somehow relegated to a status that is more "easily" explicable in physicalist terms. However, not only does this seem somewhat backwards, it appears "perverse."**Error! Main Document Only.** Contemporary "philosophers of mind typically take the problems of qualia and consciousness to pose the most serious challenge to a materialist concept of the mind, with intentionality and rationality being more readily explicable in naturalistic terms. . . . The suggestion that what we share with the beasts is scientifically puzzling, while what appears to be unique to us is merely one, relatively unproblematic material capacity among others, would have struck Plato and Aristotle, Augustine and Aquinas, Descartes, Leibniz, and Kant as odd, even perverse." Feser, *Philosophy of Mind*, 144. For it is strange that those qualities that we share with brute animals is deemed more problematic than those specific characteristics that separate us from other animals. It seems to be that by proving this lower capacity has a physical basis, the higher capacity will be proved to have a physical basis as well – and a more easily proved physical basis. I suggest this should be reversed, for a physical basis for qualia and consciousness may indeed be possible (though I think unlikely), yet this would do nothing to prove that reason and intentionality are physically based.

[78] For example, that I stub my toe and experience the subsequent pain is (mostly) explicable in physicalist terms. Upon my toe ramming into the table leg, nerve cells send a signal to my brain that

physicalism can account for *rational* thinking, and it is at this point physicalism seems to encounter a significant problem, but it is the only possible way allowed given the physicalist paradigm.[79] As the standard physicalist model of mind operates, the following is what occurs:

(1) At neurological event N_1 a certain idea I_1 results (i.e., upon the C-fibers firing the thought "My toe hurts" occurs)
(2) At neurological event N_2 another certain idea I_2 results (i.e., the C-fibers stop firing "I feel no immediate pain" occurs)

Under this consideration, it is clear why I_2 follows from I_1 – it is based on the physical state of the brain. Neurological event N_1 resulted in I_1, and N_2 resulted in I_2. However, notice that I_1 does not affect I_2 in any way, for it is only the neurological events that have any effect on thoughts – thoughts do not (indeed, *cannot*) interact.[80]

While this scenario may be able to account for the physical causes of our reactions, it seems wanting in explaining rational processes. As noted above, it is unclear what physical processes are involved that allow I_1 to affect I_2, but in rational thought this

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damage may be occurring in that part of my body. The subsequent reaction and shriek of pain, again, may be explainable in physical terms. However, suppose that I sit down take off my socks and examine the area for any further damage. Why would I do this? Because I want to see if I can evaluate the extent of my injury, and I believe that this could be more easily accomplished by observing the area directly. Something very different is going on in this act of observing the toe as opposed to what happened when the toe was injured. As already stated, the toe being injured and the resulting (largely involuntary) reaction is an example of physical *causes*. However, removing the sock to observe any further damage is an example of *reasoning*. Can physical reality account for the mental belief that: my toe hurts and I do not want it injured further, as such I need to see if there is any observable damage so that I know what the best course of action to take (i.e., go to the hospital; put ice on it; walk it off; etc.), but I cannot observe the area without removing my sock, therefore I will remove my sock after I sit down so as not to fall and further injure myself? Now, this string of varying thoughts have a logical flow to them all with the end goal of wanting to observe the injured area.

[79] "The trouble is that giving a materialistic or naturalistic explanation of any phenomenon seems somehow to require fitting it into the causal network described by physical science." Ibid., 146.

[80] "For A to be *the cause of* B is one sort of relation; for A to *be a reason for* B is another. The first concerns the impersonal realm of meaningless material forces; the latter concerns the personal sphere of rational deliberation" Ibid.

is what happens. For example, the classic deductive argument "all men are mortal, and Socrates is a man, therefore Socrates is mortal" is an example of *thoughts* affecting each other, not physical causes.[81]

3.2.2.3.2 The Computational and Representational Theory of Thought (CRTT)[82]

The British mathematician-logician Alan Turing, developed a thought experiment whereby we could "test" whether a computer or any machine had become indistinguishable from a real intellect relying on a purely physical basis for "thought."[83]

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[81] "How can the wholly contingent tendency of certain neural processes to trigger certain other ones account for our ability to think in accordance with the utterly inflexible laws of logic?" Ibid., 147. Terrence Nichols states the problem well, "there must be room in the mind for ideas to cause other ideas. Yet if every idea is correlated with a particular state of a neural network, and that state is caused by a previous state of the same network, it is hard to see how ideas can cause other ideas." (Nichols, *The Sacred Cosmos*, 148). Nichols provides a helpful way of considering the problem of mental and physical causation. He says to suppose that N_1 applies to a neural network state that corresponds to some particular idea, I_1. Now, suppose N_1 is the cause of N_2, which corresponds to I_2. Even if the person claims that I_1 led to the idea of I_2, this would be incorrect. It was the neural network (not the idea) that caused I_2. As such, mental causation must be an illusion for physicalist, but this means that both reason and science are impossible.

The above example should now more clearly establish the problem for physicalism. I remove my sock to further examine the damaged toe, but I have *reasons* for wanting to observe the toe (i.e., to evaluate the extent of damage), when I observe the toe (i.e., after I sit down, so as not to further injure myself), and how best to observe the toe (i.e., by removing obstructions to evaluating the toe – by removing the sock). These reasons are not physically *caused* even though there is an attending brain state with them. The point is that these thoughts *cause* each other, but are not *caused* by some neurochemical event – even though there is an attending neurochemical event. Feser summarizes the complaint well, can "the vast network of beliefs, desires, thoughts, and other propositional attitudes as a whole, which largely constitutes the mind, can [these] plausibly be explained in terms of the network of causal processes that constitute the brain"? Feser, *Philosophy of Mind*, 144. It seems they cannot.

[82] While this is the first time I am using the term CRTT, the position was largely alluded to in chapter 2 by Jerry Fodor. CRTT is a "functionalist" view of how the mind works. Examining CRTT is important for this project because this is the primary way most transhumanists view how the mind operates. See Susan Schneider, "Future Minds: Transhumanism, Cognitive Enhancement and the Nature of Persons," http://repository.upenn.edu/cgi/viewcontent.cgi?article=1037&context=neuroethics_pubs (accessed February 4, 2016), 6.

[83] Alan M. Turing, "Computing Machinery and Intelligence" (1950) in *Introduction to Philosophy: Classical and Contemporary Readings*, ed. by John Perry and Michael Bratman (New York: Oxford University Press, 1986), 375. The Turing Test was passed recently for the first time. "Turing Test Success Marks Milestone in Computing History," http://www.reading.ac.uk/news-and-events/releases/PR583836.aspx (accessed January 13, 2016). A computer program by the name "Eugene Goostman" created by Vladimir Veselov and Eugene Demchenko, acted as though it were a thirteen year old boy. Hence, the computer (intentionally!) misspelled words, used pop-references, and made juvenile comments. 33% of the judges were fooled and deemed they were talking with a human – thus the Turing test was passed. I think this actually exposes a flaw in the Turing test. The programmers had the program

This purely physical basis for "thought" has become a standard paradigm for how the mind operates. For physicalists, thought is a series of causes and effects illustrated as a set of inputs, outputs, and transitional states.[84] By applying an algorithm to these inputs and outputs, almost any complex task can be achieved – or so the argument goes. Many tasks we perform are so basic that a simple machine can mimic the behavior. The question then is if we can achieve success at basic levels, why not have a machine mimic human reasoning at more complex levels?[85] If the brain operates on this type of algorithm, why can we not program a machine to do something similar? Some have suggested that this is precisely how the human mind should be understood: as "the implementation of a set of algorithms constituting a program."[86] Indeed, the transhumanist agenda of creating AI and uploading human minds is based on this specific understanding that the brain (algorithmically) functions in a particular way that gives rise to "mind."[87] If we should be able to emulate the human brain, then (in theory) we would

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"intentionally" mislead the judges by introducing errors in grammar and spelling. It would be far more compelling that the Turing test has been passed if a computer that operates at full capacity and without "trickery" can get judges to believe it is a sentient being.

[84] Feser, *Philosophy of Mind*, 148. I am indebted to Feser for the following discussion.

[85] We already have basic machines that can carry out complex tasks more efficiently and accurately than humans – even if the machine's skill set is limited. For example, think of a pocket calculator – it can perform complex math functions faster and more accurately than humans, but is limited to just math. In a similar manner, because the calculator can properly interpret "4" as the correct answer to "2" "+" "2" why cannot a slightly more complex machine be able to interpret "Socrates is mortal" from "all men are mortal" and "Socrates is a man"?

[86] Feser, *Philosophy of Mind*, 149.

[87] See Randal A. Koene, "Uploading to Substrate-Independent Minds," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 147. Also see Ben Goertzel, "Artificial General Intelligence and the Future of Humanity," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 128—129.

have a fully synthetic and operational brain which would give rise to a mind of its own. The assumption here is that the human brain is susceptible to the same cause and effects as that are utilized in computers.[88] And if this is the case, then there is "in principle, no problem in explaining our capacity for rational thought in purely materialistic terms."[89]

3.2.2.1.3 Reason, Logic, and Some Problems with Physicalism / CRTT

There are a number of problems associated with CRTT.[90] The first is to point out that symbols have no causal efficacy – symbols have the "same causal properties" no matter what their meaning is, or even if they have no meaning at all.[91] It literally does not matter what the symbols *are*, if they are "programmed" to operate according to some algorithm then the algorithm will achieve its output regardless of what the symbol "means". But if this is the case, then symbols *per se* have no causal powers. The only causal factor at work is the algorithm which is operating by physical necessity.

Of course, if this is how CRTT operates, then the symbols of our language play no causal role in what follows. All that matters are the neurochemical properties

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[88] "Just as the implementation of a computer program is ultimately reducible to the network of causes and effects instantiated in a piece of computer hardware, so too would the implementation of the program that is the human mind be reducible to the network of neuronal firing patterns constituting the brain" Feser, *Philosophy of Mind*, 149.

[89] Ibid., 150.

[90] Interestingly, Francis Fukuyama thinks that a main problem with CRTT is *not* that it cannot replicate human thought, but that it will not be able to replicate human emotion. Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnological Revolution* (New York: Picador, 2002), 168.

[91] "The meanings of the symbols are, in short, completely irrelevant to their causal efficacy, for they would have the same causal properties whatever meanings they had, or even if they had no meanings." Feser, *Philosophy of Mind*, 151. To borrow an example from Feser, when a calculator computes "2 + 2 =" it performs a basic electrical algorithm in which it is programmed to output "4". However, if the programmers wanted to, they could have the calculator output some other number, or even the statement "math is fantastic." Now, while we recognize that these outputs would be curious (as well as the wrong answer to "2 + 2") the calculator would be functioning the *exact same way* as when it output "4" as when it said "math is fantastic".

implementing thought.92 Under CRTT, the symbols are divorced from their meaning. But this odd outcome highlights a problem with CRTT, namely that the causal process transferred by various brain states are wholly divorced from the meaning of the symbols they express. CRTT can only be considered because it takes a mind *outside* of the algorithm to determine the meaning of symbols.93

The problem with CRTT then is that mental states are irrelevant to thought – an odd consequence indeed. For whatever mental states are under CRTT, they must supervene on the physical states of the brain's processes. But again, if this is the case, the only "causal" power involved are the physical states of the brain. It does not matter what some proposition or conclusion *means* for CRTT to function, all that matters is that the physical process is completed. As such, if all of this follows as a consequence of the truth about CRTT, then a painful conclusion follows – CRTT is self-refuting. It is counter-intuitive to say that thoughts cannot affect each other, for if they cannot then we would be quite unable to *reason*.94 Why then give arguments for CRTT? The brain functions out of

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92 "If this is true of the symbols processed by a calculator it would be true also of the symbols 'processed' by the brain – it would be true, that is to say, of the contents of our thoughts as they are characterized by the CRTT [computational/representational theory of thought]. . . . The electrochemical properties of the neural process implementing the thought are all that matter to its causal efficacy, just as the electronic properties of the symbols in a calculator are all that matter to their causal efficacy." Ibid., 151—152.

93 The number "2" only has the meaning it does because of the conventional meaning given to it by society, there is nothing inherent to the number two that it must be represented by the symbol "2". Just as there is nothing inherent to the statement "Socrates is mortal" that it could not mean "it is snowing today". The fact that CRTT divorces meaning from the symbol so easily gives one pause as to whether CRTT is the best way to construe human rationality.

94 "It is only in virtue of the meaning or content of thoughts that they can serve as a rational justification for other thoughts . . . . Yet if the meaning or content of a particular thought plays absolutely no role in bringing about any other thought, it would seem to follow that it can provide no rational justification for any other thought. . . . Even worse, advocates of the CRTT obviously think they have a rational justification for their own belief in the CRTT; but if the theory is correct, it would seem that they can't! The theory appears to undermine itself." Ibid., 152—153.

a physical necessity not tied to any meaning. Per CRTT, your beliefs and "rational justifications" are wholly accountable by a physical process. Thus, beliefs, ideas, thoughts, concepts, and arguments do not interact nor affect each other. But to hold this view is to do away with rational thought, logic, mathematics, philosophy, and science. In its attempt to explain rational thought, CRTT wholly undermines rational thought.

3.2.2.1.4 Computation and Mind-Dependency

Conventional symbols of language and mathematics are inherently meaningless. There is nothing inherent in the shape of the letter "S" that determines it must make the sound that it does, nor is there any particular reason why the shape "S" could not stand for the meaning of an entire thought or phrase,[95] or it could mean literally nothing at all. "S" has the meaning it does in modern English because of sheer conventional use. But what applies to "S" applies to all conventional symbols – it is *we* who give the symbols meaning. But if these symbols have no intrinsic meaning, what about symbols derived from electrical impulses in the brain? It would seem they do not. Whether it be neural firings or electrical inputs in a computer, these are inherently meaningless physical events – they have significance only because we give them significance.[96]

Remember, CRTT is based on the assumption that the human brain operates on a type of biological algorithm that is analogous to algorithms run on computers. This analogy is so strong that CRTT is essentially saying that the human brain is a type of

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[95] For example, think of the dialogue between Superman and Lois Lane, when she asks what the "S" stands for on his chest. His reply was that it is not an "S" it was his people's symbol for "hope." *Man of Steel*, directed by Zach Snyder, Warner Bros., 2013.

[96] Feser, *Philosophy of Mind*, 160.

biological computer.97 One problem with this type of reasoning, however, is that algorithms and the rules they follow are not mind-independent phenomena. Rather, they need to be interpreted.98 It is insufficient to explain the human mind by an algorithm since an algorithm itself can only be interpreted by some mind. That is, mind precedes any algorithm – biological or synthetic. But if an algorithm is used to explain the existence of mind, but cannot itself exist without a mind, then it follows that mind cannot be fully accounted for by attributing to it some inherent algorithm. And if this is the case, then CRTT would appear to be false.99

What this all means is that algorithms and computation are all *observer-relative* phenomena.100 Any "computation" in the world *must* be interpreted by someone. A basic calculator or abacus only "make sense" because *we* recognize the symbols from these tools as making sense. There is nothing inherent about the electrical impulse in the

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97 Searle reminds us that a standard CRTT slogan is "the mind is to the brain as a program is to a computer." Seale takes it that this slogan must ask three distinct questions: 1) is the brain a digital computer?; 2) is the mind a computer program?; and 3) can the operations of the brain be simulated on a digital computer? Now Searle takes it that the answers to 1) and 2) are "no" but the answer to 3) is "yes." The brain is *not* a digital computer, nor the mind a program. However, neural operations could (theoretically) be replicated by a computer. John R. Searle, *The Rediscovery of the Mind* (Cambridge, MA: The MIT Press, 1992), 200—225. Given Searle's response to these questions, it is easy to see why many physicalists think that mind is just a program. For even Searle acknowledges that a computer could duplicate the *functions* of the brain, and thus for many physicalists this is sufficient to show that mind could exist not just in brains, but computers as well. Searle's response, however, is that these physicalists are reducing the mind to mere function – a warrantless leap since properties of the mind cannot be reduced to physical operations.

98 As Feser puts it, so "the fact that a computer is following some basic set of algorithmic rules cannot fully account for its behavior, because that the set of rules . . . is to be understood in *this* way rather than *that* requires some interpretation to be put on those basic rules; and since there is, by definition, no more basic set to appeal to in order to fix the interpretation, we need to appeal to something outside the computer – a mind that interprets the rules. Feser, *Philosophy of Mind*, 162 (emphasis in original).

99 By analogy, what CRTT is trying to do is explain the way George Washington (i.e., human mind) looked by describing his picture on the one dollar bill (i.e., algorithm), and then taking the dollar bill (i.e., algorithm) as the *standard* for Washington's appearance, when the true standard of Washington's appearance was Washington himself (i.e., human mind).

100 Feser, *Philosophy of Mind*, 161.

calculator that necessitates "2 + 2" equal "4". *We* are the ones that programed the

calculator to solve that equation – and once it is programmed properly, it will carry out

that function very well. *We* are the ones that determined which electrical impulses would

result in which symbol to be manipulated. The algorithm functions properly only because

some *mind* above it determined the rules it would follow. But given the reality that

computation is observer-relative, a significant consequence follows – CRTT would

appear to be incoherent.101 At bottom, thought cannot be explained in terms of a program

– it can only be accounted for in terms of intentionality.102

3.2.2.2 Intentionality

Intentionality means to be about something else.103 It points to something beyond

itself. Intentionality is the "mark of the mental" and is the "essential feature of all mental

phenomena."104 It is by intentionality that the mind recognizes things and is about other

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101 "Computation . . . is an *observer-relative* phenomenon. There is nothing intrinsic to the nature of anything in the material world that makes it a computer, or that makes it true that it is implementing a program. It is all a matter of interpretation: our interpretation. . . . If computation is observer-relative, then that means that its existence presupposes the existence of observers, and thus the existence of minds; so obviously, it cannot be appealed to in order to explain observers or minds themselves. . . . [It] is computation that must get explained in terms of the human mind, not the human mind in terms of computation. The brain is not intrinsically a digital computer, because nothing is. So the mind's ability to think in accordance with the laws of logic cannot be explained in terms of the brain's running a certain kind of program. The computational/representational theory of thought [CRTT] thus seems incoherent." Ibid., 161—162 (emphasis in original).

102 The "argument from reason implies that the standard materialist attempts to explain human rationality fail to account for the effect intentional mental states *qua* intentional have on the physical world; and . . . the categories these materialist theories appeal to – computation, representation, language and elements . . . – *presuppose* intentionality and the point of view of the conscious subject, and thus cannot form the basis for a theory *explaining* the rational intentional processes of the subject. . . . There is an inherent link between consciousness, intentionality, and subjectivity, and that one cannot account for one of these without accounting for the others." Ibid., 168 (emphasis in original).

103 The term "intentionality" derives from the Latin term *intendere* which means to "to stretch; extend; to aim at; to direct; focus."

104 Feser, *Philosophy of Mind*, 171.

things. Knowledge itself is an intentional act, since to say "I know the grass is green" is to mean that my mind turns its attention to the object grass, recognizes it as such, and overlays the concept "green" to the object to which the mind is attending. Note, that I do not need to be looking at grass to have this thought. I could be thinking this while incarcerated in some dungeon. The question is, how can a mind *be* about something else, especially if there is no object presently being presented to it?

Physicalists take this phenomenon to be a puzzle that neuroscience will one day answer. Nancy Murphy, for example, seems to take it that "knowledge" is the brain recognizing patterns and, thus, the key question in neuroscience is *how* the brain recognizes these patters.[105] In this conception, intentionality is just a series of neural patterns. But under this conception it is indeed, mysterious how the brain – as a physical thing – "recognizes" anything at all! How can something physical be about *something else* that is also physical? This is the mystery of intentionality for physicalists. It is why Daniel Dennett preferred the "Intentional Stance" as discussed in chapter 2. For Dennett, intention is not real but we must act as though it is to make sense of the world. But this is a curious position. The main reason Dennett drops the existence of intentionality is because it conflicts with his physicalism, but if intentionality seems to be real, then physicalism will need serious reevaluation.

But, why think intentionality is real? Certainly, it *seems* to be real, since we are able to communicate meaning. Perhaps, the physicalist is correct and by studying the neural processes more carefully we will be able to unravel the mystery of intentionality. However, this project argues that this scenario is unlikely *in extremis*. Why? Because as

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[105] Murphy, *Bodies and Souls, or Spirited Bodies?*, 62.

will be argued below, intentionality is *inherently non-physical*. If intentionality is non-physical and real, then it cannot be accounted for in physicalist terms. Aquinas, for example, took intentionality to be the "distinctive feature of the mind" and "impossible to explain" *in principle* in materialistic terms.[106] Hence, the argument sketched below is basically saying that "Whatever intentionality is, it isn't physical."[107]

John Searle notes that there are three types of intentionality: intrinsic, as-if, and derived.[108] To borrow Searle's example, we can compare these three types of intentionality by the following sentences:

1. I am now thirsty, really thirsty, because I haven't had anything to drink all day.
2. My lawn is thirsty, really thirsty, because it has not been watered in a week.
3. In French, "j´ai grand soif" means "I am very thirsty."[109]

The second sentence uses the term "thirsty" in a metaphorical sense. The lawn does not *really* thirst, but is in a condition that if we were parched *we* would be thirsty. As such, we identify that state with the lawn and apply it to the lawn. Hence, this is an "as-if" type of intentionality. The lawn is thirsty "as-if" it could really experience *thirst*, but it cannot. The third sentence is a "derived" intentionality. It is like the first sentence in that "it ascribes intentionality," and it is like the second sentence "in that the intentionality described is not intrinsic to the system."[110] In other words, people can be intrinsically

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[106] "Aquinas instead takes what is now called 'intentionality' to be the distinctive feature of the mind, and the one that it is in principle impossible to explain in materialistic terms." Edward Feser, *Aquinas: A Beginner's Guide* (Oxford, UK: Oneworld Pub., 2009), 131. This can be seen in the way Aquinas treats knowledge and intellect (*ST* 1a14.1).

[107] Feser, *Philosophy of Mind*, 207.

[108] Searle, *The Rediscovery of the Mind*, 78—82.

[109] Ibid., 78.

[110] Ibid.

"thirsty" – they can experience thirst and their thoughts can be directed toward that

experience – however, there is no necessary connection between that experience and it

having to be expressed in any particular language (French, English, German, or

otherwise). As Searle puts it:

> I literally ascribe intentionality to the French sentence, that is, the French sentence
> literally means what I say it does. But the intentionality in the French sentence is
> not intrinsic to that particular sentence construed as a syntactical object. That very
> sequence might have meant something very different or nothing at all. . . .
> Linguistic meaning is a real form of intentionality, but it is not intrinsic
> intentionality. It is derived from the intrinsic intentionality of the users of the
> language.[111]

As such, for intentionality to be intrinsic, there must be a connection of some sort that

necessitates that meaning point to some specific reality. For the purposes of this project,

it is the first and third sentence that will be important.

The first sentence is an intrinsic intention if it is spoken truly. *If* it is the case that I

am really thirsty, and I experience thirst, and I think the first sentence, then it can be said

that this is an intrinsic intention. The thought is directed towards the subjective

experience of thirst. I desire a drink, and my thoughts are toward that end. Now, Searle

takes it that intrinsic intentionality is something that humans and other animals

experience as part of their biological nature.[112] For him, it is just a plain fact that animals

get thirsty or hungry or tired, and have mental events about those various states. It is

important to remember that for Searle the key issue is not that some system merely

behaves as-if it is thirsty or hungry, but that it must really *be* thirsty or hungry to exhibit

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[111] Ibid., 79.

[112] Ibid.

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intrinsic intentionality.[113] A robot that *acts* thirsty or hungry but really is not, does not

have *intrinsic intentionality* – even if it were very convincing in its thirst or hunger. The

robot only has "as-if" intentionality.[114] Thus, Searle wants to maintain a real connection

between the biological experience of being in some condition and the mental state that is

directed toward it.

The third sentence is a derived intention and it shows that "we often do literally

endow nonmental phenomena with intentional properties."[115] The third sentence is not

as-if, it is quite literally true – the French phrase *means* the English phrase (and vice

versa). In a similar way, road maps literally represent various areas to help facilitate ease

of travel. Portraits of famous dignitaries and celebrities really point to their name sake.

Notice, however, that even though the road map points to a *real* place, and the portrait

could be about a *real* person, these examples are all *derived* from some human agent.[116]

Someone *made* the map. Someone *made* the portrait. That is, someone had a direct

experience of some reality and recorded it in a format that could be expressed to other

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[113] Ibid.

[114] Note how Daniel Dennett would object to Searle. Whereas Searle wants to uphold different types of intentionality, Dennett's "intentional stance" reduces all intention to what Searle calls "as-if" intention. Indeed, Searle finds the notion of the "Intentional Stance" problematic, and he uses the following example to make his point. The intestinal tract is sometimes said to be a "highly intelligent organ" with a "developed decision making ability" and can be called the "gut brain." Searle takes this to be a clear case of "as-if" intentionality – the gut *acts* as-if it were intelligent, but it is really not. Now, if Dennett were to come along and say that this is just an example of the "intentional stance" and no different than the human brain, then Searle would reply "just try in real life to suppose that the 'perception' and the 'decision making' of the gut brain are no different from that of the real brain." Ibid., 81. Can we *really* say that the "gut brain" and the "brain brain" are equivalent? For Searle the answer is "no" and it surprises him that Dennett would have to answer "yes." For Searle, to deny this distinction is to face a *reductio ad absurdum*. To deny the *intrinsic* vs. *as-if* distinction in the way that Dennett does is to make everything in the universe intentional.

[115] Ibid., 79.

[116] Ibid., 79—80.

persons. There is no necessary connection to make a road map look a specific way, nor for a portrait to look *this* way rather than *that*.[117]

And here is the rub: brain processes are a series of inherently meaningless neurological firings – brain states seem inherently empty of any intentional content. In a way, brain states are the neurological versions of portraits and road maps. For the firing of certain neurons creates a particular brain state, but does that brain state *necessarily* need to correspond to some reality? It seems not. In the same way that sentences, whether French, English, or German, could have any number of different structures, so too can brain states. Brain states do not *have* to be the way that they are. Hence, if there is any intentionality it cannot be attributed to the brain – it must be attributed to something else: mind. The "mind is the source" of intentionality – the mind has *intrinsic* intentionality.[118] Thus, we can now see the difference between the first sentence and the third sentence. The first sentence is directly and necessarily connected to the experience of the person (irrespective of the language in which it is put). The third sentence is indirectly and contingently connected to the relationships between different language groups. The first sentence is *about* the current experienced state of the person (i.e., they are thirsty). The third sentence is *about* the expression of a mental state of persons (i.e., how to say "they

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[117] Maps can be super realistic (i.e., satellite imagery) or cartoonish (i.e., a kid's placemat at some restaurant), yet the level of detail may be sufficient to get us to our destination. Portraits can be photos, photo-realistic drawings, or cartoonish, and yet we know who the portrait represents. But in all of these cases, there is no necessary connection for why one thing is made this way rather than that – hence, this shows that it is a *derived* intentionality.

[118] Brain "processes, composed as they are of meaningless chemical components, seem as inherently devoid of intentionality as soundwaves or ink marks. Any intentionality they have would also have to be derived from something else. But if anything physical would be devoid of intrinsic intentionality, whatever does have intrinsic intentionality would thereby have to be *non*-physical. Since the mind is the source of the intentionality of physical entities like sentences and pictures, and doesn't get its intentionality from anything else . . . it seems to follow that the mind has intrinsic intentionality, and thus is non-physical." Feser, *Philosophy of Mind*, 172.

are thirsty"). The "meaning" of the first sentence is found in the one experiencing thirst.

The "meaning" of the third sentence is found in the conventional expression between

language groups. Physical things cannot inherently *mean* something else (they just *are*

what they are), hence, any *meaning* that is applied to reality must be non-physical.

Therefore, the reality of intentionality is a strong reason to think physicalism is false.

3.2.3 A Brief Word on the Advances in Neuroscience

Neuroscience has rapidly become one of the more exciting fields in medical

research. With the development of technologies such as the CAT scan, MRI, and PET

scan, scientists and doctors are able to investigate the neural world as never before.

Likewise, these developments allowed neuroscientists to isolate "particular mental

functions in particular brain areas."[119] And due to these developments "most

neuroscientists believe that mental events are directly explainable by brain processes."[120]

This has led to the conviction that brain processes demand that one deny the existence of

a soul.[121] Likewise, other facets of human psychological life – emotions, morality,

religious belief, etc. – will be fully explained as brain processes.[122]

Advances in neuroscience has fueled "reductionistic naturalism" – the belief that

all of reality can be understood by "reducing" it to its most fundamental parts. Under this

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[119] Nichols, *The Sacred Cosmos*, 141.

[120] Ibid.

[121] Neuroscientist Mario Beauregard agrees with this assessment, though he thinks the evidence favors the reality of a soul. "The discipline of neuroscience today is materialist. That is, it assumes that the mind is quite simply the physical workings of the brain" Mario Beauregard and Denyse O'Leary, *The Spiritual Brain: A Neuroscientist's Case for the Existence of the Soul* (New York: Harper One, 2007), x.

[122] Nichols, *The Sacred Cosmos*, 141.

assumption, if we want an "accurate account of consciousness" then philosophical and theological reflection and introspection must be rejected. Rather, the only appeals can be made to what brain science tells us.[123] Neurons, and how they are organized, provide all we need to properly understand humans.[124] Modern neuroscientists generally say that the ability to judge, believe, think, and so forth is a product of the whole brain, not just one particular part. But as Nichols observes, this is just to say that the brain functions as a holistic cause.[125] Our thoughts can affect the release of hormones, which in turn, affects how genes are expressed.[126] The rub is that having a complete neuroscientific understanding of the mind will simply be inadequate to fully understand the *whole* mind. Neuroscience will be invaluable moving forward, and it will surely continue to expand its knowledge base on how the human brain works. It seems likely that neuroscience may in the near future actually be able to achieve breakthroughs in memory enhancement – not only from curing Alzheimer's, but in actual technical enhancement to the brain.[127]

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[123] Culture commentator Tom Wolfe, puts the issue poetically, "Since consciousness and thought are entirely physical products of your brain and nervous system—and since your brain arrived fully imprinted at birth—what makes you think you have free will? Where is it going to come from? What 'ghost,' what 'mind,' what 'self,' what 'soul,' what anything that will not be immediately grabbed by those scornful quotation marks, is going to bubble up your brain stem to give it to you? I have heard neuroscientists theorize that, given computers of sufficient power and sophistication, it would be possible to predict the course of any human being's life moment by moment, including the fact that the poor devil was about to shake his head over the very idea. I doubt that any Calvinist of the sixteenth century ever believed so completely in predestination as these, the hottest and most intensely rational young scientists in the United States at the end of the twentieth." Tom Wolfe, "Sorry, But Your Soul Just Died," http://www.orthodoxytoday.org/articles/Wolfe-Sorry-But-Your-Soul-Just-Died.php (accessed January 19, 2016).

[124] Nichols, *The Sacred Cosmos*, 143.

[125] Ibid., 173.

[126] Ibid., 174.

[127] Laura Y. Cabrera, "Memory Enhancement: The Issues We Should Not Forget About," *Journal of Evolution & Technology* 22, no. 1 (2011): 97—109.

However, it is unlikely that neuroscience will be the only discipline needed to completely understand the working of the human mind. The above considerations on reasoning and intentionality should be sufficient for showing that *mind* includes more than just scientific (i.e., empirical) consideration. Indeed, Neuroscientist Mario Beauregard explicitly states that materialism has "stalled" in neuroscience when it addresses "spiritual" issues, and it "neither has any useful hypotheses for the human mind or spiritual experiences nor comes close to developing any."[128] This is due to the fact that for materialistically-minded neuroscientists, the spiritual realm is not empirical (and thus illusory). By extension, any aspect of the "mind" that is unempirical is assumed to be false. As such, many modern neuroscientists deny the existence of meaning / intentionality, free-will, and feeling (as discussed above and in chapter 2).[129] However, it is important to note that neuroscience is not inherently materialistic, and neuroscience *is* compatible with non-physicalist notions of human persons.[130] Hence, simply appealing to neuroscience (or neuroscientists) as "proof" that there is no human mind / soul is unwarranted.

3.3 Theological Considerations

While this project has spent considerable time establishing a philosophical position for ensoulment, it is important to remember that ensoulment has a theological dimension as well. The basic proposal for this project is that the theological data relevant

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[128] Beauregard and O'Leary, *The Spiritual Brain*, xiv.

[129] Ibid., x—xi.

[130] For a couple of examples of contemporary neuroscientists who are non-physicalists regarding the human mind, see: Beauregard and O'Leary, *The Spiritual Brain.*; Jeffrey M. Schwartz and Sharon Begley, *The Mind and the Brain: Neuroplasticity and the Power of Mental Force* (New York: HarperCollins, 2003).

to ensoulment is found in two notions: 1) the *imago Dei*; and 2) being loved by God. The *imago Dei* operates as a baseline theological concept that establishes the sacredness of human life. Humans are beings in God's image. And since God is priceless, so too are humans as a reflection of God's image. Likewise, being loved by God further establishes the importance of human life since humans are deemed as valuable by God. It is not, and cannot be, the *imago Dei* alone that establishes human worth, for God's image may be found in many places in creation – even if, there is something special shared just with humans. As such, the argument is that we should value those things that God values, and since God values human life, so too should we. Thus, the conjunction of the *imago Dei* and being loved by God, provides a powerful theological basis for establishing the moral value of human persons.

3.3.1 On the *Imago Dei*

The concept of the *imago Dei* (Lat. "the image of God") plays a significant role for Christian anthropological theological speculation.[131] The *imago Dei* is often considered the locus of human dignity, human rights, human sanctity, and human worth. For our purposes, we will mostly be considering human dignity as a "catch-all" for the issues related to rights, sanctity, worth, value, etc. The problem that presents itself, however, is that the notion of human dignity is not agreed upon. Socio-biologists (pace E. O. Wilson) tend to collapse humans into just some class of mere animal – and to suggest

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[131] Francis Fukuyama acknowledges this fact, "Christian doctrine emphatically asserts that all human beings possess an equal dignity, regardless of their outward social status, and are therefore entitled to an equality of respect." Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnological Revolution* (New York: Picador, 2002), 89.

that humans have some quality greater than other animals is to engage in "speciesism."[132]

Under this view, human dignity (whatever that is) does not signify a special sort of status.

Human dignity – at best – would be whatever society generally designates as being

important to humans. The opposite pole of saying that humans are mere beasts is to make

humans nearly divine. That is to say that humans are the *highest* and *most worthy* beings

(i.e., they have the most dignity) in the universe.[133]

Gilbert Meilaender takes a middle path and says humans are "neither beast nor

God" but are somewhere in-between.[134] Because humans fit this in-between status the

tendency is to focus on one or the other. Hence, some see humans as mere beasts (i.e., the

socio-biologists) while others see humans as nearly divine (i.e., some transhumanists).[135]

Orthodox theologian John Behr notes that the idea of humans having dignity is in a real

sense a matter of faith.[136] This notion of dignity is so intimately wrapped within one's

religious viewpoint that were one's religion to "whither away" so too would one's notion

of human dignity.[137]

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[132] Thomas Albert Howard, "Introduction," in *Imago Dei: Human Dignity in Ecumenical Perspective* (Washington, DC: The Catholic University Press of America, 2013), 3.

[133] I am not taking into account the idea of *theosis* at this point. All this is doing is establishing the spectrum of positions regarding human dignity. That is, on one end humans have no dignity and on the other end, only humans have dignity.

[134] Gilbert Meilaender, *Neither Beast Nor God: The Dignity of the Human Person* (New York: Encounter Books, 2009).

[135] Howard, "Introduction," 5—6.

[136] As he puts it, "we would nevertheless surely still want to say that there is something about every human being *as a person* that is absolute, equal, and irreplaceable. But because this conviction is not an empirical conclusion, nor even empirically verifiable, it is an a priori assumption, or, in other words, a statement of faith." John Behr, "The Promise of the Image," in *Imago Dei: Human Dignity in Ecumenical Perspective* (Washington, DC: The Catholic University Press of America, 2013), 17.

[137] Ibid., 21. Indeed, David Bentley Hart comments that "If . . . the 'human' as we now understand it is the positive invention of Christianity, might it not also be the case that a culture that has become truly post-Christian will also, ultimately, become posthuman?" David Bentley Hart, *Atheist Delusions: The*

Given the importance of religious conviction for establishing human dignity, it should be no surprise that the modern notions of human dignity are deeply indebted to the Judeo-Christian notion of the *imago Dei*.138 The reality is that much of the notion of human dignity is due to religion in general and the Judeo-Christian tradition in particular.139 And it is because of human dignity's close association with certain religious traditions that some (more skeptically minded) thinkers have taken the notion of human dignity to be essentially worthless, or if dignity is to be preserved, then it must be grounded in some rational capacity.140 As we will see however, placing human dignity (or the *imago Dei*) in some form of capacities approach proves problematic.

There are different interpretations of what the *imago Dei* entails simply because there is no *clear cut* definition of what it is and exactly what it involves.141 The *imago Dei* is scarcely mentioned in Scripture, but plays a large role in Judeo-Christian anthropology.142 The phrase "image of God" appears only ten times in the entire Bible

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Christian Revolution and its Fashionable Enemies (New Haven, CT: Yale University Press, 2009), 215, quoted in Behr, "The Promise of the Image," 21.

138 Howard, "Introduction," 2.

139 Ibid., 4.

140 Ibid., 5.

141 James Peterson identifies three different ways that the *imago Dei* has been interpreted. The first is that humans have unique "God-like" capacities, like the abilities to reason and make free choice. The second is that humans are directed by God to have dominion over the world in a way that God would have dominion. The third sees the *imago* as a type of relationship between God and other human beings. James C. Peterson, *Changing Human Nature: Ecology, Ethics, Genes, and God* (Grand Rapids, MI: William B. Eerdmans Pub., 2010), 19. Following Gregory of Nyssa, John Behr notes that while humans may be made in the image of God, *how* this is the case may remain an eternal mystery. Behr, "The Promise of the Image," 30.

142 C. Ben Mitchell, "The Audacity of the *Imago Dei*: The Legacy and Uncertain Future of Human Dignity," in *Imago Dei: Human Dignity in Ecumenical Perspective* (Washington, DC: The Catholic University Press of America, 2013), 86. John Kilner makes the same point, and further notes that the reason for this is thoroughly intentional – it may provide "a model for how to think and communicate about the divine image appropriately," John F. Kilner, *Dignity and Destiny: Humanity in the Image of God* (Grand

(including apocryphal texts).[143] John Kilner remarks that the infrequency of the "image of God" suggests that the text is trying to "affirm a core idea or two" about the relationship between humans and God rather than showing that they are alike in "particular ways."[144] No wonder there are various interpretations.

For example, various views of "liberation" are often directly tied to the idea of God's image in the person, since the image of God ideally respects and protects "the dignity and life of all human beings."[145] Indeed, a robust idea of the *imago Dei* combined with a strong notion of the importance of Christian service in conforming to the image of Jesus, provided the impetus in the early Church to help the poor, the sick, and the oppressed.[146] Prominent philosopher Nicholas Wolterstorff agrees that human rights are most often associated with humans being associated with the image of God, but the attending speculation on what constitutes the *imago Dei* has promoted "fruitless

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Rapids, MI: William B. Eerdmans Pub. Co., 2015), 42; cf., 37. That is, there is little explanation *because* it needs to remain somewhat mysterious.

[143] The verses where the phrase "image of God" applies to all humans appear are: Gen. 1:26; 5:22; 9:6; Wis. of Sol. 2:23; Sir. 17:3-4; Rom. 8:29; 1 Cor. 11:7; 2 Cor. 3:18; Col. 3:9-10; James 3:9. Highlighting specifically Genesis 1, 5, and 9, John Kilner notes that these are three of the more important statements. Genesis 1 simply because this is the "statement about who human beings are," Kilner, *Dignity and Destiny*, 38. Genesis 5 because this instigates the genealogies and reiterates that there is something about the "image of God" that is "irremovable from who human beings are." Ibid. Even adding to that the statement in Genesis 9 shows that the "image of God" – whatever it *is* – is to be valued because it somehow connects us to God (Ibid). In a real sense, the "image of God" carries an inordinate amount of theological "weight" considering its infrequent appearance in the text. Kilner remarks, "Some people, then, attribute less significance than they should to humanity's creation in God's image simply because the divine image seems to receive relatively little attention in the Bible" (Ibid., 40—41).

[144] Ibid., 39. He goes on to say that this is a "strategic attempt in the Bible to use the image of God concept as a 'gravitational force' or 'seedbed' to anchor and stimulate some understanding of humanity." Ibid.

[145] Ibid., 6.

[146] Ibid., 8—9. Kilner further notes that Christian reflection on the image of God was a driving force for the abolition of slavery in the Western world. It also provided a theological perspective for the protection of women against traditional patriarchal cultures. Ibid., 10—14.

controversy."[147] As it is, the notion of the *imago Dei* has had far-reaching implications for Christian theology – particularly in regard to the creation of humanity and its renewal. Indeed, as Kilner notes, the idea of "God's image plays a pivotal role in a Christian understanding of God and all of life."[148] The importance of the *imago Dei* is demonstrated by the fact that relational justice between humans is based in God's image and *not* God's character.[149] It is evil to murder a person primarily *because* they are made in God's image (Gen. 9:6), not because of some abstract moral principle.[150] The image of God, therefore, confers a worth to whoever bears that image.[151]

C. Ben Mitchell says that "As creatures, human beings belong to God in a special way."[152] However, Mitchell notes that the Bible nowhere actually spells out in what the *imago Dei* consists.[153] So the *imago Dei* needs to establish the dignity of *all* humans, but nowhere in the biblical text does it *actually* state how this is to be accomplished. Despite

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[147] Nicholas Wolterstorff, *Justice: Rights and Wrongs* (Princeton, NJ: Princeton University Press, 2008), 342.

[148] Kilner, *Dignity and Destiny*, 5.

[149] Mitchell, "The Audacity of the *Imago Dei*," 87.

[150] Abstract moral principles may still be relevant, but only provide supplementary support for the primary motivation to value human life.

[151] "I dare say no argument has to be offered for the thesis that being in the image of God . . . gives great worth to those creatures who bear the image." Wolterstorff, *Justice*, 347.

[152] Mitchell, "The Audacity of the *Imago Dei*," 85. As Kilner phrases it, "Human beings are connected with God in a profoundly significant way: they are created in God's image. God has a very personal stake in the life of a human being. When one destroys (or badly damages) a human being, one is affronting God." Kilner, *Dignity and Destiny*, 116.

[153] Mitchell, "The Audacity of the *Imago Dei*," 88. He does note some various possibilities that theologians have developed over the years, but the Bible does not explicitly state any of them. He says that the *imago Dei* has been thought to be: 1) the erect human bodily form; 2) human dominion over nature; 3) the ability to reason – a favorite among scholastic theologians; 4) human prelapsarian righteousness; 5) various capacities; 6) distinction between man and woman; 7) being responsible and moral conformity to God; or 8) some combination of the above.

the lack of biblical data on what the image of God actually entails, the implications of the *imago Dei* are so attractive that Christian theologians are simply compelled to develop this concept.

One way to develop the *imago Dei* is to highlight that the Bible is clear that humans are (*in some way*) in God's image. Kilner opts for the position that humans have the *imago Dei* but not yet in the way Jesus shares in God's image. That is, Jesus is the exemplar of what it means to be human and through God's sanctifying power, people are ever being conformed to Christ's image – which is God's image.[154] Orthodox theologian John Behr takes an eschatological perspective on the *imago Dei*.[155] Because of this future looking perspective, Behr comes to the intriguing position that we are not *quite* human just yet – not until we are redeemed. For Behr, this is the case because Jesus was the first *true* human (not Adam), and until we fully reflect Christ at the final redemption we are not fully human.[156] It is by following Christ that we become human.

It is better to see the *imago Dei* as being part of the human nature itself, all humans have worth and dignity because all humans are the image of God – regardless of attending capacities.[157] The importance of the *imago Dei* in describing the worth of

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[154] People "are not God's image now the way that Christ is; however, they are intimately connected with God because God's image is the very blueprint for humanity. . . . The distance is great now, but because God is transforming people into the very image of God in Christ (2 Cor. 3:18), that distance will eventually decrease substantially. The basic idea here is that God has a likeness-image, and God has created people with that in view." Kilner, *Dignity and Destiny*, 92.

[155] The "human being in the image of God to Christ as the image of God, and to place this in eschatological perspective—we are created looking forward to, in anticipation of, as a type of Christ." Behr, "The Promise of the Image," 29.

[156] Behr, "The Promise of the Image," 31. This leads Behr to make an astute observation: if we are not *yet* human because we have not been redeemed, then a post-Christian world cannot become post*human*. However, a post-Christian world may not desire to even *become* human. Ibid., 37.

[157] Wolterstorff, *Justice*, 350. Likewise, they are in God's image despite their gender. It may be an easy criticism to say that the *imago Dei* applies only to men (and indeed, historically some have understood

human being is explained well by Nicholas Wolterstorff, "Yes, a human being in whom human nature is functioning properly is of great worth, truly admirable. But why would one think that a being in whom human nature us seriously malfunctioning is still of great worth just because it has that [human] nature?"[158] If the *imago Dei* is tied solely with function, or if there is no *imago Dei* at all, then humans are only as valuable as their capabilities allow. A fully functioning human may be considered to have great "worth." But what about the child with Down's Syndrome? What about the person suffering from Parkinson's or ALS?[159] If this approach is taken seriously, then humans who have less functionality are of less worth, and may be treated accordingly as beings of less worth. The Christian tradition has historically abhorred this idea. Humans are not disposable simply because they have lessened capacities. The whole person is in the image of God, not just some part.[160] The whole human reflects God's image regardless of functionality

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the "image" to mean "men only"), however, John Kilner is quick to point the difficulty of such a view – especially in light of the "image's" connection with "glory." He says, to avoid the conclusion that the *imago* applies only to men "some commentators have suggested that he [Paul] is talking here [1 Cor. 11] about Adam or Christ only — or not really about God's image. However, there is no need to circumvent the straightforward connection of men and God's image in this text. Paul does affirm that men are God's image; but he does not say that *only* men are involved in the image and glory of God. He affirms this status of men and then makes a different affirmation of women — that a woman is a glory of a man.

The contrast here between men and women involves glory only, with the understanding that God's image encompasses both male and female being so obvious from Genesis 1:27 that Paul does not need to restate the woman's image status here. . . . There is nothing surprising about men and women being God's glory in different ways." Kilner, *Dignity and Destiny*, 93—94 (emphasis in original).

[158] Wolterstorff, *Justice*, 351.

[159] If worth is found in capacity and ability, then these persons have less "worth" than a normally functioning human. The same implications apply to the very young and the very old – limited capacity equals limited societal "worth."

[160] "We would do well then not to locate the *imago Dei* in some component of our identity, but in the created whole." Mitchell, "The Audacity of the *Imago Dei*," 92.

or capacity. However, even though humanity is supposed to be like God and reflect God, because of sin this is rarely the case.[161]

Kilner summarizes well the preceeding consideration about the impact and extent of the *imago Dei* for this discussion. Kilner is quoted at length:

> Humanity's creation, then, in the "likeness-image" . . . means the following. All people are created according to God's image, which the New Testament identifies as Jesus Christ. . . . from before the beginning of creation, God intended that humanity should conform to the divine image, to Christ. So God created humanity well along the way toward that end. Even before the Fall, humanity had a further way to go before becoming a full reflection of Christ, having a transformed spiritual body and imperishability (not able to die). However, after the Fall people lost most of their ability to reflect God. . . . they continue to be in God's image, unique among creation as those whom God intends to become conformed to the divine image. No image has been damaged, for God's image is Christ — it is the standard of what God intends humanity to become. Nevertheless, sin has severely damaged people, who desperately need renewal according to the image of Christ.
> Only Christ, then, currently is God's image in the complete sense of what it means to be the image of God: embodying a special connection with God and a glorifying reflection of God. People are created *in* (according to) that image. Simply by virtue of being in God's image, people do have a special connection with God. But it is not a connection of identity, as Christ (who *is* God) has. Rather, it is a connection of similarity. . . . Simply by virtue of being in God's image, people can manifest some reflection of God; but it is far from all the reflection that God intends. Only after death will people's transformation into the image of God in Christ be complete. Until then they are in (according to) that image, accountable to God to develop increasing likeness to God.[162]

3.3.2 On Being Loved by God

The *imago Dei* goes a long way in establishing the moral worth of persons, but there is one significant problem – it cannot establish a basis for guaranteeing universal human rights. As Wolterstorff notes, *even if* the *imago Dei* is viewed as being inherent in

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[161] Kilner, *Dignity and Destiny*, 131.

[162] Ibid., 132 (emphasis in original).

our very being then "while all human beings possess the image, possessing it does not, as such, give its bearers a very exalted status; among those who possess the image will be human beings who are seriously lacking in capacities on account of human nature being malformed in their case. The image of God is not adequate, all by itself, for grounding natural human rights."[163] What is needed is a way to convey the worth of human beings without that worth being grounded in human capacities. Above it was argued that this capacities approach is insufficient for a proper view of the *imago Dei*. Wolterstorff takes a slightly different tact and says that the most appropriate place to ground the worth that the *imago Dei* conveys is in the fact that God loves human beings. It is the love of God that bestows dignity to humans.[164] Only humans are specifically said to be in the image of God (Gen. 1:26-27; 5:1; 9:6; Col. 3:9-10; James 3:9). Modern thinkers may try to place human dignity in some notion of human autonomy and / or respect for "persons," but this is not how Christians have (historically) viewed what grants humans dignity.[165] Christians are to love others as they love themselves (Lev. 19:18; Matt. 22:37-40) because it is God who first loved us (1 John 4:19).

Now, being loved by God is an example of having *bestowed* worth.[166] But, how can "bestowing" worth give value? We can look at some human examples to answer this

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[163] Wolterstorff, *Justice*, 352.

[164] As Wolterstorff puts it, "if God loves equally and permanently each and every creature who bears the *imago dei* [*sic*], then the relational property of being loved by God is what we have been looking for [to ground moral worth]." Ibid., 352.

[165] Behr, "The Promise of the Image," 16.

[166] Wolterstorff, *Justice*, 353.

question. Humans give (i.e., bestow) worth to paintings and relics.167 As Wolterstorff

notes, the worth of a painting or relic "is purely instrumental to the worth of the person –

or, more precisely, purely instrumental to honoring the worth of the person."168

According to Wolterstorff (who is, himself, following Augustine) there are three

types of love: 1) love as attraction; 2) love as benevolence; and 3) love as attachment.169

In *love as attraction* there is something in the object that the subject finds pleasurable –

the subject is *attracted to* the object.170 In *love as benevolence* there is a desire to increase

the well-being of the other – whether it be a person or a thing.171

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167 There is nothing *inherently* valuable about Leonardo Da Vinci's, *Mona Lisa*, that makes it valuable. Indeed, higher quality materials could be purchased at a local craft store. Nor can it be the case that the artist, Da Vinci, gives the *Mona Lisa* worth. For *even if* Da Vinci did give the painting value while he was alive, since he is dead he cannot be the one giving the painting value *now*. The reason the *Mona Lisa* has value today is because *we* give it value as an exemplary piece of Da Vinci's artistic genius. In a similar manner, historical relics generally have no inherent value. The *Declaration of Independence* is not "materially" special – without proper care it will continue to decompose – and like the *Mona Lisa*, better materials could be purchased from any craft store. It cannot be the words of the *Declaration of Independence* that are valuable, for while their specific combination may be powerful and inspirational other powerful and inspirational writings are produced with great regularity. So, like the *Mona Lisa*, the *Declaration of Independence* has value because *we* give it value as a powerful political statement of this country's historical conflict with Great Britain. In both cases, we may admire Leonardo Da Vinci and Thomas Jefferson for their artistic, philosophical, and political genius, but again this has value only because *we think* it has value.

168 Ibid., 358.

169 Ibid.

170 A young lady may find a particular diamond breathtaking, or a young man may be "smitten" by the beauty of his betrothed. In both cases there is something in the one that the other finds irresistible. Interestingly enough, however, this type of love does not add any worth to the object. You may be attracted to the diamond or the young lady, but your attraction to the item or person bears no relevance on the *worth* of the item or the person. They retain their properties whether you find them attractive or not. Ibid., 359.

171 Often *love as benevolence* is associated with love as attraction or attachment, but it retains its own distinct notion. That distinction, again, is found in wanting to improve a person or thing's state. But as with *love as attraction*, *love as benevolence* does not convey worth to the object either. It may improve a person or thing's lot in life, but it cannot be said that it inherently makes the person or thing *worthy*. It may be good to give food to a starving person, thus making their life better, but it does not follow that they now have worth *because* you gave them food. Ibid.

Finally, with *love as attachment*. Here the love that is expressed is markedly different than either attraction or benevolence – for here, one just loves the other because it is to that object one has bonded. Wolterstorff gives the example a young child's attachment to their (hideous!) stuffed animal. Why does the child love this raggedy toy? It is supremely ugly and mostly broken. There is seemingly nothing that the stuffed animal offers that could not be better served by a newer, better conditioned toy. Yet, as nearly any parent can attest, children can become attached to a singular toy to the point that it is that toy – and only *that specific toy* – that the child has any interest. In other words, the stuffed animal has worth *because* the child *attaches* worth to it.172

In a similar vein, God loves humans in a way that the child loves the stuffed animal. For if love can bestow any worth, it must be a love by way of attachment. Both love as attraction and benevolence are insufficient to bestow any relevant sense of worth. As such, if humans are worthy of honor and respect it is because God has attached Himself to humans in such a way that His love makes all bearers of the *imago Dei* valuable – irrespective of capacities. In the same way the child's stuffed animal is busted and unlovely (i.e., it has lessened capacities; it is "broken") but the child loves it anyway, so too are humans often busted and unlovely – humans have lessened capacities (i.e., down syndrome; ill-formed limbs; sin; etc.) – but God loves humans anyway. Indeed, God thinks humans are enormously valuable (Psalm 8:4-6; 144:3; Job 7:17; Heb. 2:6-8). Thus, humans have value even if their capacities are diminished or if others do not find them attractive. As such, Wolterstorff concludes, "if God loves a human being with the love of attachment, that love bestows great worth on that human being; . . . I conclude

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172 Ibid.

that if God loves, in the mode of attachment, each and every human being equally and permanently, then natural human rights inhere in the worth bestowed on human beings by that love. Natural human rights are what respect for that worth requires."[173] Just as God loves humans, so too are Christians commanded to love others (Lev. 19:18; Matt. 22:37-40). And this love for others is a means of seeing the dignity that all humans possess.[174]

3.4 A Working Proposal for Understanding Human Persons

Gilbert Meileander noted that persons – human persons, that is – are replete with dualities. It is the *human person* that is the locus of both freedom and finitude, body and spirit. These notions can no more be separated in reality than words from sentences. However, it is the fact that these realities are distinct by way of *reason* that we often perceive that they are truly different. Though these dual aspects of human persons are rationally distinct – and thus can be examined individually by rational reflection – they are not *really* distinct and so cannot be actually separated without failing to consider the *whole* person.[175] Hence, we can see the importance of maintaining the different *causes* of human persons as Aristotle observed. To only consider the mechanical and material aspects of human persons is to neglect half of their nature – namely, the formal and

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[173] Ibid., 360.

[174] Behr, "The Promise of the Image," 20. Behr points to Irenaues *Against the Heresies* (2.7, 19; 4.6.6; 5.6.1) as an example of this thought. Christina Bieber Lake notes that "love is what gives beauty" or in this case worth or dignity. Christina Bieber Lake, *Prophets of the Posthuman: American Fiction, Biotechnology, and the Ethics of Personhood* (Notre Dame, IL: University of Notre Dame Press, 2013), 101.

[175] "The person simply is the place where freedom and finitude are united. Body and spirit cannot be separated in our understanding of human beings; yet, because of the two-sidedness of our nature. We can look at the person from each of these angles." Gilbert Meilaender, *Bioethics: A Primer for Christians* (Grand Rapids, MI: William B. Eerdmans, 1996), 4.

teleological.[176] Thus, there is a significant difference between mechanistic functionalism found in physicalism and Aristotelian hylomorphism represented by ensoulment. "The crucial difference is that, like other forms of materialism, functionalism is implicitly committed to a 'mechanistic' conception of the material world on which it is devoid of Aristotelian formal and final causes."[177] And what applies to mechanistic functionalism also applies to substance dualisms like that of Descartes. Descartes' error was assuming that all causes were simply materialistic and efficient, for he too neglected the formal and teleological causes of human persons.[178]

The mechanistic assumption by both physicalists and substance dualists creates problems for fully comprehending the nature of human persons. Under a physicalist conception of mechanistic causes the human person "disappears." That is, under physicalism "you" are not you – at least not in the self-reflective manner you think you are. However, under a substance dualist conception of mechanistic causes the human person "disappears" also, but in a different way. That is, under substance dualism, "there appears to be no way, in principle, to identify anything as an immaterial substance."[179] The only way we are able to identify who people *are* is by physical and psychological

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[176] Bernard E. Rollin notes the importance of telos as a basic metaphysical category for understanding living things. See his Bernard E. Rollin, "Telos, Value, and Genetic Engineering," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 318.

[177] Feser, *Aquinas*, 172.

[178] "The mistake of Cartesian dualists and materialists alike, according to the hylomorphist, is to think of all causation as efficient causation." Feser, *Philosophy of Mind*, 223.

[179] Ibid., 216—217.

characteristics, but because the mind of a person is so radically divorced from their body, we can (in no principled way) ever know with whom we are interacting.180

Ensoulment, as defended in this chapter following Aristotle and Aquinas, holds that material substances are "inherently purposive composites" of form and matter.181 There is no *real* separation between them and, as such, there cannot be any purely mechanistic and efficient causes (in the physical realm at least). Both physicalism and substance dualism abandon the composite understanding of material substances and in doing so introduce a number of conundrums that serve as the hallmarks of modern philosophy: the mind / body problem; the problem of personal identity; the interaction problem; etc. Ensoulment may seem an unhappy half-way house between physicalism and substance dualism, but it does have the distinct advantage of *not* succumbing to these modern paradoxes.

So, how then would ensoulment account for answering these classical puzzles? The answer is by exposing the assumption in each and realize that ensoulment operates on an understanding of a "holistic cause." Physicalists (particularly those that are functionalists) say that human persons are *nothing but* a collection of biological parts

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180 "The upshot of both Cartesian and reductionist theories of personal identity seems to be the complete disappearance of persons as such, and for similar reasons: in the case of Cartesian dualism, there appears to be no way, in principle, to identify anything as an immaterial substance, and thus (in this view) as a person, since no appeal to the only plausible criteria for making such an identification – bodily and psychological characteristics – can suffice; in the case of reductionist theories, such characteristics are all that really exist in the first place, so that talk about the persons who have the characteristics comes to seem otiose or even empty. The reason for this consequence, some would suggest, is identical to the reason why there is an interaction problem: the mechanistic conception of the human body that Cartesian dualism shares with materialism." Ibid.

181 "Materialism and Cartesian dualism alike eliminate formal and final causes from the explanation of material things, replacing the classical hylomorphic conception of material substances as inherently purposive composites of matter and form with a conception of them as collections of particles or the like devoid of either intrinsic purpose or objective, irreducible form, and explicable entirely in terms of efficient causation." Ibid., 221.

arranged in such a way that they have some "functional organization" – if the parts are in the proper order, then they function in a proper way. For the proponent of ensoulment, human persons are "*irreducible* to their component parts."182 The soul unifies the body, gives it direction, and gives it life.183

Even though the soul is the unifying factor of the body and the source of life, it is affected by the body since the soul is part of a composite substance. For humans, this means that damage to the body affects the soul in some way – especially damage to the brain which has a special relationship with the soul.184 Nichols prefers to think of the soul

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182 Feser, *Aquinas*, 172—173 (emphasis in original). Feser summarizes this position well. He says, "The whole is also ordered to a certain natural end or final cause, and the various parts are themselves ordered to various ends that are subordinate to this overarching final cause. Accordingly, the parts are related by final causality as much as by efficient causality; and the unity between the parts is therefore *organic* and *necessary*, not 'mechanical' and contingent" (Ibid., emphasis in original). It is for this reason that Feser (among other Aristo-Thomistic minded thinkers) doubt the possibility of a true artificial intelligence. As Feser puts it, "for the Aristotelian, a machine could not possibly count as a living thing, precisely because it is an artificial construct whose parts are *naturally* ordered to various other ends, rather than to the flourishing of the system into which they have been configured for human (and thus *external*) purposes" (Ibid., 173, emphasis in original). A machine may give the similitude of life, but it cannot *actually* be alive – there is no holistic unity as the parts are ordered to *external* rather than *internal* ends. Terrence Nichols agrees with Feser's assessment, "the soul is the ultimate organizing principle of the body. It is not a separate, independent substance, as Descartes thought. Rather, it is an active, internal principle that acts to keep the whole functioning as an integrated unit. We could think of it as a field of active information, which informs the whole, keeping it in order." Nichols, *The Sacred Cosmos*, 167.

183 Ric Machuga makes the point that the mechanistic view of nature found in physicalism and substance dualism is often contradicted by our observations of nature. We may pride ourselves on discovering the mathematical formulas that dictate how clouds form the shapes that they do, and it may be possible (someday) to accurately predict the shape they take (pending the relevant conditions), *but* it will still be the case that the causes involved in shaping the clouds are of a different sort than those of a finely tuned time-piece. They operate on different principles of motion. A cloud must take a shape, but must it look like a bunny? A properly functioning clock on the other hand, must keep a specific time. The problem for mechanistic minded thinkers is that they take nature – *all* of nature – to be like a clock. The point is, says Machuga, that "clouds are not clocks, and our universe contains many more cloud-like events than clock-like events. Therefore, the fear that modern science might one day prove that humans are really nothing more than complex machines is unfounded. Even if we limit our discussion to events whose causes are wholly physical, there will always be a crucial distinction between mechanistic and nonmechanistic causes, or what Aristotle and Aquinas called *per se* efficient causes and *per accidens* efficient causes." Machuga, *In Defense of the Soul*, 144. A cloud only *accidentally* looks like a bunny, even though it must take *some* form *necessarily* to be a cloud.

184 "As an information field, the soul is embodied, and is therefore affected by any damage to the body, especially to the brain." Nichols, *The Sacred Cosmos*, 167.

as both a "holistic cause" and a "field of active information." This means that the soul is able to direct the parts of the body to their natural end and affects the whole person. But because he thinks of humans in these terms, it follows that humans have a sort of dual causality – physical and formal. "The parts affect the whole, but the whole also affects the parts."[185] This is a two-way street, not a one-way alley – the soul affects the body and the body affects the soul (in different ways). As such, there is no conflict with the notion of ensoulment and current studies in neuroscience or biology, for ensoulment affirms that affecting the body or brain affects the mind / soul.[186] What ensoulment holds in distinction to physicalist studies in neuroscience and biology is that the mind / soul also affects the body – a supposition often denied. How is this done? Nichols suggests that the soul may affect the physical body at the quantum level. He takes it, that because states of electrons and subatomic particles exhibit an element of indeterminacy, that this could be a way for the immaterial soul to affect the physical body. As he puts it, an "input of information could cause a change in the state of a quantum system, and so, possibly, in the state of a neuron network."[187] But this could not just happen once, it would have to happen many times to be a viable account. In other words, for this to work any changes at

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[185] Ibid., 174.

[186] "If the human soul is a holistic cause, whose effect as a field of active information is to order and direct the whole person, this would be a complementary cause to the part-whole causality that is investigated by the sciences. In the human person, then, there would be dual causality. The parts affect the whole, but the whole also affects the parts. The hypothesis of a holistic cause need not conflict with any of the work being done in contemporary neuroscience, which is principally focused on the influence of the parts on the whole." Ibid.

[187] Ibid., 168. I tend to shy away from this type of speculation, for it seems to collapse the discussion back into the issue of nature just being mechanically ordered. It seems to revert to the idea that matter can exist apart from some form – which of course the ensoulment approach denies.

the quantum level would have to be holistic, not particular.[188] But this is just to say that the soul affects the *whole person*.

3.4.1 Advantages of the Ensoulment Perspective of Human Persons

The primary advantage of ensoulment over physicalism and substance dualism is the fact that ensoulment does not limit reality to only efficient and material causes.[189] Regarding the human person, this is significant. First, it values the body and the soul of the individual – it does not privilege one to the neglect of the other. This is important for ethical considerations. If a body has the principle of life, then a soul is present (even if it is not functioning at peak capacity), and it follows that a living being is present and should be treated with respect. This has obvious importance for issues related to beginning and end of life ethical questions, such as abortion and euthanasia. Second, it recognizes the close relationship between the body and soul. It recognizes that to harm the soul or the body is to harm the person. Any view that says it is acceptable to torture the body because the soul is not affected is despicable. Any view that says the body is all there is and ignores the soul is mistaken.[190] Third, an ensoulment view of reality leads to

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[188] Nichols notes four areas that science generally suggests that "holistic" causes exist: 1) "entangled" particles operate as though they are connected to the same information field; 2) the Pauli exclusion principle, which holds that no two electrons can share the same four quantum numbers in an atom, indicates some holistic organizing principle for atoms – electrons, after all, do not "decide" which spin they should adopt, or which atomic shell they should occupy; 3) "directed mutations" in biological systems suggest that under certain conditions, organisms can affect which mutations take place – but this seems impossible if all mutations are random. The fact this happens is taken as evidence that there is some overarching (i.e., holistic) principle guiding the organism; and 4) holism appears in the brain sciences as well, as discussed above. Ibid., 168—172.

[189] Feser, *Philosophy of Mind*, 223.

[190] There is a particularly pernicious viewpoint among the religiously minded that is of special concern. Some religious believers value the soul so much, that they neglect the body – whether their own or someone else's (i.e., "What matters is salvation of the soul, not bread for today."). The other, equally incorrect view, is that the body is all that needs to be tended to and not the soul (i.e., "Here is some bread,

the position that there are objective moral values. This follows from the fact that objects have natures (forms and final ends). To act contrary to the form and / or its final end is to bring objective harm to the object. However, to enhance its form or help it towards its final end is to do objective good. For example, animals need food. As such, to give them food is to do them good, but to deny them food is to do them harm. Determining what is or is not objectively good or evil is not always easy, but it is possible. Thus, it follows that any view (like physicalism) that does not hold that objective right and wrong exists (to some degree) is ignoring a significant part of reality.

Ensoulment recognizes the richness of reality and is willing and able to express that reality in its fullness.191 Both physicalism and substance dualism remove formal and final causes from consideration in material things. These views replace the unity of things with the conviction that all material things are nothing more than a collection of their respective parts. These material objects, reduced to no more than their parts, are said to be completely explainable in terms of efficient causality. As shown above, this is hardly the case.192 To clarify, below are listed some specific advantages of ensoulment over physicalism and substance dualism.

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now go your own way."). I think the Christian approach should account for both the body and the soul (i.e., "Here is some physical bread, now let me tell you about the 'bread of life.'").

191 Harold W. Baillie comments that ensoulment (in the Aristo-Thomistic tradition) can offer a promising argument against certain genetic enhancements for two reasons: 1) ensoulment "avoids the Scylla of the abstract comfort of freedom in the face of the material rootedness of the discussion of genetic enhancement," and 2) it avoids the "Charybdis of a materialism that issues in a genetic determinism that undercuts the very idea that there is a moral dilemma in this discussion." Harold W. Baillie, "Aristotle and Genetic Engineering: The Uncertainty of Excellence," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 215. That is, ensoulment both sets limits against an unmitigated desire to wholesale change human nature, and it recognizes the moral reality that genetic modification conditions.

192 Feser, *Philosophy of Mind*, 221.

3.4.2 Advantages of Ensoulment Over Physicalism

The obvious advantage ensoulment has over physicalism is that it is able to account for our lived experiences of our conscious self-reflection.[193] It can account for qualia, consciousness, rationality, thought, and intentionality. It can also account for how the mind affects the body *and* how the body affects the mind. Ensoulment resists the temptation to strip teleological explanations away from reality. Rather, it embraces teleology along with its other causes. One regrettable result of physicalism is that its view of reality is voluntarily shallow.[194] By limiting all inquiry to areas that only explore efficient and material causes, materialistically minded philosophers and scientists miss out on the richness of reality.[195]

Physicalism (understood as philosophical naturalism) further cannot adequately explain religious experience. Whereas ensoulment allows for – and can endorse – such a position. The argument runs as follows: if physicalism is true, then religious experiences are simply natural phenomena; but religious experiences are more than natural phenomena; therefore, physicalism must be false. Now, this argument does not depend on the notion that the vast majority of humans alive today are religious. Rather, the argument moves along the lines of *any* religious experience(s). And it is here where the data is

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[193] Terrence Nichols wryly remarks that the implications to reductionist physicalism are so repulsive that many adherents "would probably want to disclaim" it. Nichols, *The Sacred Cosmos*, 150.

[194] Jeffrey P. Bishop connects physicalism to technological mastery explicitly and notes that this "shift in emphasis to efficient causation changes the relationship among other causes, such that the *telos* or final cause no longer enters into scientific description, but becomes a political ideal." Jeffry P. Bishop, "Transhumanism, Metaphysics, and the Posthuman God," *Journal of Medicine and Philosophy* 35 (2010): 707—708. Transhumanists tend to eschew formal and final causes in favor of efficient and material ones. Thus, the most efficient way implement technological systems into society is by political means.

[195] By relegating formal and final causes as a myth of a bygone era, these thinkers deny themselves true wisdom. The real tragedy is that in their quest for an ever increasing knowledge of physical reality, they propagate a view that is inherently and intentionally impoverished.

interesting. People claim to have true religious experiences – personal, transcendent

experiences. The difficulty for the physicalist is that they must show how *each individual*

instance of a religious experience is explicable in naturalistic terms. General

pronouncements about delusion, hallucination, drugs, etc. are insufficient to dismiss all

instances of religious experience. Many experiences simply defy explanation in

naturalistic language – as many people really believe they have a personal relationship

with God.[196]

Another issue with various forms of physicalism is its inability to account for

free-will. As stated previously, under physicalism, all beliefs, thoughts, and actions are

materially caused. They are not (and cannot be) caused by previous beliefs or thoughts.

Simply declaring that freedom is a useful heuristic because the physical causes are so

complex – ala E. O. Wilson – does not solve the problem. For, even if it seems I am free,

then under the dictates of physicalism I am not, and can never be, *really free*. The key

issue here is that we are free not just because there are no external constraints, but that we

are also free from *internal* constraints.[197] If our thoughts and beliefs are simply the result

of neurochemical reactions, then our beliefs are never our own. They necessarily come

about by the demands of chemistry and physics. However, freedom "has an element of

intentionality about it."[198] Electrons and chemicals operate according to fixed laws, and it

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[196] Ibid., 157. Nichols notes that this experience of God's presence is not limited to mystics, but also many sincere lay persons. Further, these experiences span multiple religions, in multiple countries, over multiple ages. Religious experience is a persistent occurrence in human lives. William James makes a similar observation in his *The Varieties of Religious Experience: A Study in Human Nature* (New York: Touchstone, 1997). Neuroscientist Mario Beauregard has developed a similar argument. See Beauregard and O'Leary, *The Spiritual Brain*.

[197] Nichols, *The Sacred Cosmos*, 158.

[198] Ibid.

is this rigidity to their reactions that allow us to have scientific advances. Yet, no matter how complicated these interactions are, no matter how unpredictable the outcomes may be, it would be absurd to say that electrons and chemicals were "free." Humans, on the other hand, can *choose* to behave in certain ways undetermined by prior influences. As Nichols summarizes it, "Material systems, even chaotic systems or highly complex systems (like computers) might exhibit randomness (and therefore unpredictability), but they do not exhibit freedom."[199]

3.4.3 Advantages of Ensoulment Over Substance Dualism

Ensoulment has the distinct advantage of not neglecting the bodily processes in favor of the non-physical mind. Both are needed. Brian Davies rightly reminds us that it "is not my soul which understands and wills. I do."[200] Descartes made the mistake of identifying people with only their souls to the neglect of the body. By making the body a mere biochemical machine he set the stage for the rejection of supernaturalism in the modern era. It is ironic that Descartes, a deeply spiritual man, developed a philosophy that was used to block discourse of the spiritual. The Cartesian reduction of matter to mechanical laws paved the way for the rejection of teleology in the sciences and ultimately to the philosophical rejection of all non-physical realities (i.e., the mind / soul, angels, and God).[201]

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[199] Ibid., 158—159.

[200] Brian Davies, *The Thought of Thomas Aquinas* (Oxford, England: Cambridge University Press, 1992), 214.

[201] Feser, *Philosophy of Mind*, 216-217. Commenting on Descartes mechanistic philosophy and its implications, Timothy K. Casey states, the "ideal of a clockwork universe implied [by Descartes], among other things, the denial of any natural teleology as anthropomorphic; the positing of unobservable entities such as corpuscles or atoms as real and the demotion of perceptual qualities to, at best, useful illusions generously provided by nature to aid in our survival; and in general an idea of the natural as dead,

A second advantage of ensoulment over substance dualism is in being able to identify persons via their body. Remember, under the dictates of ensoulment there is only one substantial soul to a body, and any body that soul inhabits will take on the shape as determined by that form. As such, for the proponent of ensoulment, souls cannot inhabit other bodies and that body remain the same. The eminent philosopher, Alvin Plantinga (who readily acknowledges his indebtedness to platonic metaphysics), very famously stated that Socrates could have inhabited an alligator's body.[202] He can hold this position because he identifies the person as being coextensive with just their soul. As such, Socrates *could* inhabit not just an alligator's body, but *any* body whatsoever.[203] The proponent of ensoulment denies this possibility, for part of what makes a person be who they are is determined in large part to the experiences of a specific body. That body provides the mind / soul with content from the world and the mind / soul provide form and structure to the body. One cannot be wholly separated from the other without great violence being done to the person. Hence, while the soul may exist without a body, any matter that it informs would take on the shape as determined by the soul. The ensoulment

mechanical stuff emptied of any religious, aesthetic, or moral qualities. The mind (and with it all the meanings and values not amenable to quantification) was simply locked up in a small part of the brain, surrounded, if not yet engulfed, by an alien and alienating universe that could not but weaken previous convictions concerning the reality of freedom and by implication moral choice." Timothy K. Casey, "Nature, Technology, and the Emergence of Cybernetic Humanity," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 42.

[202] Alvin Plantinga, *The Nature of Necessity* (New York: Oxford University Press, 1974), 65—69.

[203] Plantinga makes it clear that this is the case only if Socrates is essentially *immaterial*. For if Socrates is essentially immaterial, then Socrates can inhabit any body as neither Socrates nor the body would be really affected by Socrates inhabiting the body. Ibid., 69. This notion is called *haecceities* and can be understood as "a thing's individual essence . . . it is a property such that . . . [*x*] has it in the actual world and in every world in which he exists and nothing different from . . . [*x*] has it in any possible world. It is a property essential and necessarily unique to [*x*]." Michael J. Loux, *Metaphysics: A Contemporary Introduction*, 2nd ed. (New York: Routledge, 2002), 210.

position thus states, that if we can identify the person via a body, then this is good *prima facie* evidence that we are dealing with that person's soul as well – given the unity of soul and body. Under substance dualism, the confidence in this connection is severely undermined.

3.4.4 A Key Objection to Ensoulment: When Was the First Human Soul?

The strength of this objection is that it essentially asks how one can one avoid arbitrarily saying that today's humans have immortal souls, but past human ancestors along the evolutionary tree of life do not? Stated differently: when did humans first have souls? Famed Oxford biologist, Richard Dawkins, criticizes John Paul II's anthropology along these lines.[204] Modern theologians (at least those who adopt some form of evolutionary theory) often believe that modern *homo sapiens* have immortal souls, but earlier proto-humans like *homo erectus* did not. It thus seems theologians have a dilemma: either, modern humans – and all of humanity's ancestors – have immortal souls, or if proto-humans did not have immortal souls, then neither do modern humans. Some theologians (like Nancy Murphy) adopt the second horn of the dilemma and simply deny that any human (or proto-human) has ever had a soul. These theologians say that the notion of "souls" is all wrong and needs to be abandoned. I am unaware of any theologians that take the first horn of the dilemma seriously. Rather, it seems most

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[204] In describing (or more accurately, mocking) John Paul II's comments on evolution delivered to the Pontifical Academy of Sciences in October 1996, Dawkins comments, "[according to the Pope] there came a moment in the evolution of hominids when God intervened and injected a human soul into a previously animal lineage. (When? A million years ago? Two million years ago? Between Homo erectus and Homo sapiens? Between "archaic" Homo sapiens and H. sapiens sapiens?) The sudden injection is necessary, of course, otherwise there would be no distinction upon which to base Catholic morality, which is speciesist to the core," Richard Dawkins, "Obscurantism to the Rescue" *The Quarterly Review of Biology* 72, no. 4 (1997): 398.

theologians (or at least those that askew a special creation of Adam) must assign an

arbitrary time to the creation of the human soul. If a theologian wants to hold that humans

develop along evolutionary lines, and want to hold the position that early hominids did

not have souls but later hominids did, then this is the only option available.

The most common way to respond to this difficulty and still retain a notion of a

soul is to say that the human body developed via evolutionary means, but that God

implanted a unique soul in "Adam" at some point in the past.[205] This solution has the

benefits of retaining the notion of a soul and maintaining the semblance of a creation

account. This belief often entails the conviction that God creates a unique soul at (or

shortly after) each human conception, for the pattern has been established that the only

way to have a soul is for God to create one.[206]

The most severe limitation of this account from an ensoulment perspective is that

this view of soul has more in common with substance dualism than the version of the soul

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[205] This seems to be approach taken by John Paul II. He says, "With man, we find ourselves facing a different ontological order—an *ontological leap*, we could say. But in posing such a great ontological discontinuity, are we not breaking up the physical continuity which seems to be the main line of research about evolution in the fields of physics and chemistry? An appreciation for the different methods used in different fields of scholarship allows us to bring together two points of view which at first might seem irreconcilable. The sciences of observation describe and measure, with ever greater precision, the many manifestations of life, and write them down along the time-line. The moment of passage into the spiritual realm is not something that can be observed in this way—although we can nevertheless discern, through experimental research, a series of very valuable signs of what is specifically human life. But the experience of metaphysical knowledge, of self-consciousness and self-awareness, of moral conscience, of liberty, or of aesthetic and religious experience—these must be analyzed through philosophical reflection, while theology seeks to clarify the ultimate meaning of the Creator's designs," John Paul II, "Message to the Pontifical Academy of Sciences: On Evolution," https://www.ewtn.com/library/PAPALDOC/JP961022.HTM (accessed January 30, 2016, emphasis mine). This "ontological leap" seems like John Paul II is saying God implanted a soul in an ancestor making them essentially "Adam."

[206] See for example Aquinas, "Therefore, everything else acts by producing a change, whereas God alone acts by creation. Since, therefore, the rational soul cannot be produced by a change in matter, it cannot be produced, save immediately by God" (*ST* 1a90.3). The *Catholic Catechism* affirms the same, "The soul . . . can have its origin only in God" (33). Likewise, it says, "The Church teaches that every spiritual soul is created immediately by God" (366). Also, "The doctrine of the faith affirms that the spiritual and immortal soul is created immediately by God" (382).

expounded in this chapter. Thus, it appears ensoulment faces a significant dilemma: on one hand, it cannot allow for God to create a new soul for each conceptus as this appears to sever the connection of the form and matter unity ensoulment demands;[207] on the other hand it does not seem consistent for ensoulment to affirm that God implanted a soul in some proto-human in the past as this would mean that proto-humans had capabilities supplied by souls even though they did not have a soul.[208] Ensoulment cannot affirm the second horn of the dilemma and hold that God never implanted a form in some proto-human, which in effect just denies that modern humans have souls. This position cannot be taken since, after all, this view is called en-*soul*-ment. But ensoulment does not seem able to affirm the first horn of the dilemma either since that would be inconsistent with the principles set forth by the position. Is there then a plausible alternative?

Terrence Nichols offers an intriguing account of how the proponent of ensoulment can maintain both beliefs that modern humans have souls *and* modern humans are derived biologically from proto-humans that also have souls. The distinction that Nichols draws on, in good Aristotelian fashion, is not to deny that proto-humans have souls. Indeed, per Aristo-Thomistic metaphysical principles all material reality must have some form (i.e., soul) to be actualized. Thus, *homo erectus* had a soul, though the powers of that soul may have been closer to modern animals that modern humans. Likewise, the offspring of proto-humans are also ensouled, and this chain of ensoulment continues to this day. The difference between modern humans and proto-humans then

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[207] In other words, if God implants a soul, then this means there is a body present *before* the soul / form is present, thus invalidating the conviction that no physical bodies can exist without some form being present.

[208] This would, likewise, imply that there was some physical being (indeed a biological being!) that did not have a soul / form.

might seem then to be just physical differences – but while the body expresses the soul's holistic information on the body, this is not the key distinction.

Remember, for Aristotle, the soul is so united to the body and that upon the body's death, the soul dies too. Aquinas modified this to say that the soul, being subsistent, could survive the body, but would be incomplete. Nichols' suggestion is that ensoulment accounts for both of these convictions. And the key difference that determines if a soul is immortal or not is whether it has a personal relationship with God. Under this conception, the soul develops naturally (there is no special implantation of a soul), but at some point in the past, God decided to develop a special relationship with a proto-human – thus making them the "first" human. God initiates a relationship with every soul since then, and it is this (potential) relationship that makes the soul immortal. As Nichols puts it, "My hypothesis is that the human soul is not naturally transcendent or immortal. It becomes transcendent and immortal through a divinely initiated gift of a personal relationship with God."[209] Evolution does not naturally lead to transcendence – even if it increases complexity of an organism. This is because transcendence and immortality lie outside of the "natural" realm. For the soul to be transcendent, it is God who must make it so.

Thus, at some point in the distant past, God developed a relationship with a proto-human making them the "first" human person – the first "Adam" if you will. Just as grace perfects nature, so too does the relationship with God elevate the natural soul to a transcendent and immortal soul.[210] Nichols favors *Cro-Magnon* man as about the time

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[209] Nichols, *The Sacred Cosmos*, 174—175.

[210] Ibid., 175.

when God initiates this relationship, for it is at that time that burial practices seem to begin – and along with it an apparent belief in an afterlife.[211]

Therefore, Nichols' account offers an intriguing answer to the objection of "when" the soul of modern humans began. His answer is that the question is ambiguous on what we mean by "begin." If you mean "begin" in the sense that proto-humans did not have souls, then he answers this is the wrong view of souls – proto-humans *had* souls as evidenced by their various capacities. For we can imagine a proto-human with the ability to use a rudimentary language and comparatively significant intellectual ability, but still not have a transcendent soul.[212] If you mean "begin" in the sense that the soul had a proper relationship to God, then this is the correct approach even if we cannot identify the exact date of when this relationship began. In general, ensoulment in the relevant sense began when God first nurtured a relationship with humans, elevating their concerns to the transcendent and immortal. Thus, it appears the soul "began" about the time humans became concerned with burial practices. This approach maintains a general evolutionary view of humanity, but also explains why modern humans have a unique role in creation – God develops relationships with these beings, thus elevating their souls to the divine. Stated differently, to the beings that God develops this relationship of elevating the soul, we can say that these beings exhibit the *imago Dei*.

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[211] Ibid.

[212] Ibid., 176.

Chapter 4

Moral Alternatives: "Personhood Only" and "Human Nature Only"

> If we say that certain capacities that we believe (perhaps wrongly) are peculiar to human nature are important for our well-being, all the normative work is being done by the idea that they are important for well-being, not by the claim that they are part of our nature.
> — Allen Buchanan, *Beyond Humanity?*, 138

> Aristotle, together with his immediate predecessors Socrates and Plato, initiated a dialogue about the nature of human nature that continued in the Western philosophical tradition right up to the early modern period, when liberal democracy was born. While there were significant disputes over what human nature was, no one contested its importance as a basis for rights and justice.
> — Francis Fukuyama, *Our Posthuman Future*, 13

4.1 Introduction

The Judeo-Christian tradition believes that human lives are sacred. However, as the notion that humans are nothing but biological machines has become the dominant position, the sacredness of human life has slowly evaporated. It is now believed by a large swath of society (scientists, philosophers, etc.) that there is nothing sacred, special, or unique about any living creature – much less human beings.[1] As Francis Fukuyama has pointed out, modern society has severed the connection between human beings and "human rights."[2] That is, conventional wisdom is currently that "rights" are established independently of "being." Historically, there was widespread agreement that knowing human nature was important as a basis for knowing rights and justice. Fukuyama reiterates, however, that this historic approach is dying. Indeed, "the concept [of human

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[1] Ben C. Mitchell, Edmund D. Pelligrino, Jean Bethke Elshtain, John Kilner, and Scott B. Rae, *Biotechnology and the Human Good* (Washington, D.C.: Georgetown University Press, 2007), 41.

[2] "The connection between human rights and human nature is not clear-cut, however, and has been vigorously denied by many modern philosophers who assert that human nature does not exist, and that even if it did, rules of right and wrong have nothing whatever to do with it." Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnological Revolution* (New York: Picador, 2002), 101.

nature] has been out of favor for the past century or two among academic philosophers and intellectuals."[3]

What a human *is* is not easily defined, as the previous two chapters have demonstrated. Often "humanity" is considered to be a "cluster concept" composed of "a set of necessary and sufficient conditions."[4] For example, humans can be considered under *physical* traits such as bipedalism or having opposable thumbs, etc. Likewise, they can exhibit *psychological* traits like the ability to use language, higher reasoning skills, exhibit a high level of sociability, etc. Or, one could consider *phylogenetic* traits like being of the biological species *homo sapien*. Any number of other traits could be added to this list, and it is not even agreed upon that having these traits make one a human being, some beings may have these traits and *not* be human and others may be human and lack these traits.[5] How then can a notion of "human nature" be of any use in our contemporary setting?

This challenge is heightened for the theologian who must provide a holistic account according to multiple disciplines reporting on what it means to be human. For example, the theologian must assess the philosophical, theological, anthropological, scientific, as well as any other discipline that says something about human beings. This holistic approach endeavors to avoid reducing human beings to simple technological individuals as well as avoid constructing an individualistic morality without taking into

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[3] Ibid., 13.

[4] David Resnik, "The Moral Significance of the Therapy-Enhancement Distinction in Human Genetics," *Cambridge Quarterly of Healthcare Ethics* 9 (2000), 369.

[5] Ibid.

account the social nature of human beings.6 Humans are certainly individuals, but we are

not solely individuals – we live in a particular historical and social context. How we view

ourselves is by necessity somewhat individualistic and self-interpretative, but it is no less

contextualized by society.7 Thus, the challenge is to neither deny our individual

autonomy, nor excise it from its historical and social context. We are individuals, but

individuals *within* a society. We are encultured creatures. By extension, our technology is

to be neither worshiped nor feared. Those who shy away from embracing enhancement

technology sometimes do so because of the assumption that if something is "natural" then

it is "good," and to alter what is "natural," would then be interpreted as doing something

"bad."8 This viewpoint, while retaining a valid insight, is ultimately too limited be of any

real use. Sometimes, it may be *good* to alter our nature, just as it may sometimes be *good*

to leave our nature as it is.

Allen Buchanan takes it that critics of transhumanism have two overarching

concerns enhancement entails for human nature. First, that enhancement may alter or

destroy human nature itself – and given transhumanism's tendency to foresee a

"posthuman" future, this concern is not unjustified. Second, that the alteration or

destruction of human nature will impede our ability to know what is "good" since this is

6 Stephen Garner, "Christian Theology and Transhumanism: The 'Created Co-creator' and Bioethical Principles," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 235.

7 John Behr, "The Promise of the Image," in *Imago Dei: Human Dignity in Ecumenical Perspective* (Washington, DC: The Catholic University Press of America, 2013), 23.

8 Allen Buchanan, *Beyond Humanity?: The Ethics of Biomedical Enhancement* (Oxford, UK: Oxford University Press, 2011), 143.

determined by our nature.9 Both concerns have a key assumption that Buchanan challenges. To the first, it is the assumption that altering human nature is inherently wrong. To the second, it is that it is impossible to judge what is "good" apart from human nature.10

Buchanan challenges the critic of enhancement directly, and states that there is nothing inherently wrong with changing human nature. First, humans are a mixture of good and bad, so why not increase the good and remove the bad? Second, even if humans were eventually eliminated, perhaps a posthuman future actually *is* just objectively better than one with just mere humans. Thirdly, he argues that the alteration of human nature does not affect our *judgment* of what is "good." Finally, he thinks that discussions about "human nature" obscure, rather than clarify, the key issues.11

In what follows we will examine two broad approaches to establishing human dignity in light of technological enhancements. The first section will look at the claim that the only morally relevant criteria for the debate is by examining "personhood." This position is exemplified by Allen Buchanan, and this section will expound his argument. The second section argues that the relevant moral issues are primarily found in "human nature" and this banner is taken up by Francis Fukuyama. The last section will briefly evaluate both positions, but ultimately determine that despite their insights, neither are ultimately sufficient for establishing a proper moral system to engage enhancement technology.

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9 Ibid., 115.

10 Ibid.

11 Ibid.

4.2 Common Claim: "Personhood" is the Only Relevant Moral Factor

This section will focus primarily on the arguments put forth by Allen Buchanan, as he has developed a powerful position prioritizing personhood over human nature. Buchanan wants to ground any discussion about humanity in the scientific evidence. That is, any discussion of humanity *must* start with a proper view of biology and Darwinian evolution.[12] He says, no valid (much less compelling) account of humanity can afford to mishandle this essential point. There must be an insistence on using the proper scientific evidence. Because of this approach and given our knowledge of how species come to be and pass away, "human nature" will need to adapt to changing environments by relinquishing or gaining new characteristics.[13] The notion of a "fixed" essence, thus, must be dispensed. Darwinian evolution simply does not allow for any type of a stable essence. Thus, quite literally, posthumanism cannot be inherently bad as *all* creatures are "post" some previous creatures.[14] Modern *homo sapiens* are in a sense, post-*homo habilis*. The term "*homo-sapien*" allows for a broad range of characteristics, but if this is the case, then the emergence of the posthuman simply cannot be dismissed as inherently wrong.[15]

Human nature is a mixture of both good and bad traits – we have powerful brains for great comprehension, but we are fairly fragile creatures. Given that these sorts of good and bad traits could be multiplied, Buchanan asks the obvious question: what is so

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[12] Ibid., 116.

[13] Ibid., 119.

[14] Ibid., 120.

[15] Ibid., 121.

wrong with removing the bad traits?16 Likewise, what would be wrong in enhancing the

good traits? These two questions highlight the problem for critics of the transhumanist

project, there seems to be nothing wrong – indeed, it seems to be morally required – to

remove humanity's bad traits and enhance their good traits. Hence, Buchanan takes it that

appealing to some "biological essentialism" or "innate human dignity" as reasons *not* to

pursue this agenda is inadequate. Indeed, by accepting even common medical

interventions we already admit to some level of alteration to our biological selves.

Likewise, given the acceptance of Darwinian evolution, there appears to be no such thing

as "innate dignity."17 And even in light of Darwinian evolution, Buchanan is not at all

convinced that the emergence of a posthuman future would necessarily dispense with

"human rights." For indeed, Buchanan notes that depending on what features or

capacities ground "human rights" *now*, may also be applied to posthumans tomorrow.

And if his argument proves to be successful, then *both* humans and posthumans would

accrue some sort of rights on that common basis.18

4.2.1 Human Rights and Personhood – Allen Buchanan

For Buchanan, "human rights" are a "threshold" concept – once the conditions are

met, all rights are attributable to that being. And if rights are accorded by the capacity of

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16 Ibid., 136.

17 As Brent Waters states, this "appeals to biological essentialism and innate human dignity are ineffectual objections to the self-transformation imperative driving posthuman discourse, because in the former instance no substantive claims can be made once the efficacy of medical intervention per se is admitted, and in the latter case the central claim loses any substantive content, given evolutionary change." Brent Waters, *This Mortal Flesh: Incarnation and Bioethics* (Grand Rapids, MI: Brazos Press, 2009), 127.

18 Buchanan puts it this way, "the emergence of posthumans, even if this were accompanied by the extinction of human beings, would *not* entail that the concept of human rights would no longer be applicable. The concept of human rights would still be applicable if posthumans had the capabilities or interests that ground (what we now call) human rights." Buchanan, *Beyond Humanity?*, 214 (emphasis in original).

a being, then the level of that capacity should not affect that being's moral status. For example, a normal functioning human adult is accorded certain moral worth due to some capacity met by that person – i.e., ability to reason, ability to feel pain or empathy, etc. Whatever the criteria is, if the person fulfills said criteria, then they are of moral worth. Likewise, this moral worth is not affected *even if* the person is not able to fully use their capacities. A severely brain damaged individual may still have moral worth even though their capacity for reasoning is greatly diminished – but the capacity is still there, and that is Buchanan's point.[19] If a person has a capacity for some relevant criteria, then their respective ability to utilize that capacity matters not.

Now, in regards to the enhancement debate, the concern is often put that the enhanced will have a greater moral status than the unenhanced. This discrepancy will result in comparative injustice between the enhanced and the mundane. The enhanced will enjoy greater freedoms and privileges not available to the unenhanced. Thus, the unenhanced will be perceived as less morally worthy than their enhanced counterparts. That is, the worry is that the unenhanced will have a lower moral status than the enhanced.

Buchanan is not ignorant of this concern. Indeed, he thinks the notion of "human rights" plays a significant role in light of this possibility. For Buchanan, "human rights" (or "person's rights") are best understood as a threshold concept, and our current understanding of "human rights" is based on the types of beings we are *now* – not what we were nor what we may become.[20] But as a threshold concept, no matter *how* enhanced

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[19] Ibid., 215.

[20] Ibid., 214.

some person is – even to the point of a full-blown posthuman – you cannot violate the rights of another *person*. In this way, Buchanan believes that he can alleviate the concern of the enhancement critic. The critic is concerned that the unenhanced will be undervalued, but Buchanan states that the enhanced will have a moral obligation not to violate the rights of the unenhanced. Problem solved. Right? Not quite. Even Buchanan acknowledges that it will not always be possible to protect the rights of those that are not as privileged.[21] Indeed, even in today's world we already have a discrepancy between the enhanced and the unenhanced. We understand this difference as that between the benefits enjoyed by the first-world (technologically advanced and largely economically free) and those missing in the third-world (technologically stunted and largely in economic bondage). So, the question that arises, is how would the introduction of truly enhanced persons be any worse than the situation we have now? For even today, the notion of "human rights" plays an important role in the civilized world for the allocation of resources and as a language of speaking about economic (in)justice. As Buchanan notes, this language of "rights" conveys moral entitlements that grounds the duties of others.[22] What today's society fails at being able to accomplish in light of the relevant moral demands, an emotionally and morally enhanced being would be in better condition to meet those demands for the good of the unenhanced.

After consideration, Buchanan comes to three conclusions: first, enhancement technologies can, and should, be pursued *even if* such enhancements altar "human nature." The upside to enhancement technology may simply be too beneficial to preserve

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[21] Ibid., 215.

[22] Ibid., 215—216.

some outdated and incorrect concept what it means to be "human." Second, even when expressing concerns about enhancement technology, one does not need to resort to terms about "human nature" to make their point. Instead, Buchanan finds concerns about enhancement technologies apart from "human nature" more compelling and appealing. Finally, we can make sufficient judgments about what is "good" without appealing to "human nature." As such, even if "human nature" were to change, we should still be able to discuss what is or is not "good."[23] Moral order, therefore, should not be impossible just because we change what it means to be human.

4.2.2 Moral Status and the Moral Equality Assumption

One of the key concerns in the enhancement debate is whether the introduction of enhanced beings means that a segment of society (i.e., the enhanced) would have a "higher" Moral Status than the unenhanced.[24] What seems to be the worry is that the assumption that whatever it is that makes one a "person" and thus making all of them "morally worthy" is demeaned if someone should appear on the scene who is thought to be *more* "morally worthy." Buchanan calls this the "Moral Equality Assumption." Which is "the assumption that all who have the characteristics that are sufficient for being a person have the same moral status."[25] As such, if person P has certain traits associated with retaining moral value, and person P_2 has those same traits, then both P and P_2 are said to have the same Moral Status as they share the same moral value.

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[23] Ibid., 138—139.

[24] Ibid., 209.

[25] Ibid.

Buchanan argues that since Moral Standing is a threshold concept, once you have met the appropriate "conditions" one's Moral Status as an equally worthy being is established regardless of whatever "inequalities" may be present.[26] As he puts it, "Merely augmenting the characteristics that make a being a person doesn't seem to be the sort of thing that should confer higher moral status."[27] As far as Buchanan is concerned, it is difficult to see how someone being enhanced, grants them a higher Moral Status than a "person." The arrival of posthumans would not spell the end of mere human rights. In the same way it is morally wrong for humans to torture animals, so too it would be morally wrong for a posthuman to torture a mere human just for fun. The fear that Buchanan wants to allay is that the arrival of posthumans would not automatically spell "doom" for non-enhanced humans. For the non-enhanced would still retain certain moral rights in virtue of their Moral Standing as persons and not as human beings.[28]

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[26] Ibid., 217.

[27] Ibid.

[28] I find Buchanan's argument here inadequate and borderline incoherent. On one hand, he wants to maintain that the arrival of posthumans would likely introduce a set of additional post-person rights in addition to those already attributed to persons. On the other hand, he wants to maintain that posthumans maintain the same Moral Status as mere humans. But if posthumans have *more* rights than mere humans, it seems difficult to maintain that posthumans and mere humans have the *same* Moral Status. Even using Buchanan's example of the three groups representing the moral structure of the world seems to argue against his position – as he admits. "The moral universe already includes the inequality of moral status" between groups A and B. Ibid. He even states that we grant a higher Moral Status to humans rather than rats. We often sacrifice group A for the benefit of group B. Now, if this is the case, it is only a small step to envision a time with the rights of group C *outweigh* those of groups A or B. Again, this seems a natural concern for the anti-enhancement crowd and it seems disingenuous on Buchanan's part to assert that this apprehension is either: a) overblown, since post-persons will be more morally aware than us and thus will not violate our rights; or b) wholly incorrect, as this multi-status moral structure of the world is inadequate. First, there is no guarantee that post-persons *will* be more morally aware than us, nor does it address the cruel calculus that post-persons may conclude which determines it is *best* for posthumans to eliminate (or restrain) mere humans – *for their own good*. Second, given how humans justify their treatment of rats *even in light of a Moral Status hierarchy*, it seems absurd that posthumans would not consider mere humans "beneath" them (in a moral sense) even if they acknowledge mere humans have certain rights. As such, I am not bullish on Buchanan's suggestion that moving the discussion into the realm of "person's" rights will actually solve the problem.

It is important to note that Buchanan's assumption on what "personhood" *is* here is a fully Kantian approach. And the concept that is the central theme of Buchanan's project is in assuming that the key trait that makes one a "person" is rational capacity.[29] One criticism that will reoccur here is that if someone retains some different account about what makes one a "person" apart from rational capacity or if Moral Standing is not granted based on rational capacity, then Buchanan's optimism for a relatively peaceful human and posthuman coexistence may be unwarranted.

Finally, it is important to keep in mind the distinction between Moral Standing and Moral Status. Moral Standing is understood as an essential non-transferable quality, while Moral Status is a comparative condition. Buchanan takes it that something has Moral Standing if it counts morally "in its own right."[30] That is, the thing has moral value due to some quality or characteristic "essential" to that thing. Moral Standing then is a non-comparative quality – you either have it or you do not. Whereas Moral Standing is more-or-less an "essential" quality of a thing, Moral Status is a comparative quality between multiple things that have Moral Standing.[31] That is, it may be the case that when two objects which have Moral Standing are compared, one object may have a higher Moral Status than the other. Both a lab rat and a human child have Moral Standing, but we consider the human child to have a higher Moral Status.

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[29] Nicholas Agar, *Truly Human Enhancement: A Philosophical Defense of Limits* (Cambridge, MA: The MIT Press, 2014), 159.

[30] Buchanan, *Beyond Humanity?*, 209.

[31] Ibid., 210.

4.2.3 "Personhood" Defined as a Functioning Set of Capacities

Gilbert Meileander acknowledges a trend over last several decades to "define personhood in terms of certain capacities."[32] It has become fashionable to hold that a person is a being who is conscious, self-aware, and productive. The problem as Meileander puts it is that it is obvious that the class of human beings is wider than the contemporary notion of "personhood" allows. Under this definition, there are quite literally human beings who do not qualify as "persons."[33] For Meileander, this is a disturbing trend.

We humans routinely create moral groupings that include some beings and exclude others. Likewise, we frequently imbue some groups with special privileges that others do not have. This is generally how we make moral distinctions between mere animals and humans, and why we are willing to sacrifice animals for the "good" of humans. We regularly use animals as biological test subjects for various experiments before we move to human trials. Whether this is actually moral or not is beside the relevant point. The relevant point is: *we use animals in ways we do not use humans*. This practice points to the *de facto* reality that we (generally) recognize humans as having some special Moral Status that mere animals *do not* have.

Now, the main reason we distinguish between animals and humans is because we recognize some key distinction between humans and animals in which we judge one to be

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[32] Gilbert Meilaender, *Bioethics: A Primer for Christians* (Grand Rapids, MI: William B. Eerdmans, 1996), 6.

[33] "To be a person one must be conscious, self-aware, productive. The class of persons will widen or narrow depending on how many such criteria we include in our definition of personhood. But, in any case, the class of human beings will be wider than that of persons. Not all living human beings will qualify as persons on such a view and, we must note, it is persons who are now regarded as bearers of rights, persons who can have interests that ought to be protected." Ibid.

more valuable than the other. Humans have a greater moral worth (on the whole) than some particular animal. The trend in ethics is to place moral worth with the expression of some relevant capacity. Hence, to the greater degree a being exhibits the relevant capacity, the greater moral worth that being has. Now, Buchanan wants to say that the relevant moral capacity is rationality, but he also wants to hold that once the threshold is met for rational capacity it does not matter *how* rational one is. A super-genius is no more morally worthy than a dullard who just passes the threshold of rationality. Thus, while he wants to mitigate his approach to Moral Status as being equitable to all who meet the criteria, this by necessity means that he holds to a capacities based approach of morality. "Persnohood" is quite literally defined as having sufficient rational capacity. Thus, "personhood" is denied to any being that does not meet this nebulous rational threshold.

Below we will see how Buchanan argues that morality should be understood in an Intrinsic-Based sense rather than an Interest-Based sense. He takes this position because he sees an Intrinsic-Based approach to morality as a way to properly decide what should or should not be done. He argues that an Interest-Based approach is simply too vague to be of any real use. Likewise, we will look at Buchanan's defense of an Intrinsic-Based morality against a couple of objections. His position will then be summarized.

4.2.3.1 Interest-Based Morality vs. Intrinsic-Based Morality

Buchanan is not unaware of the difficulties this capacities based morality causes. He thus seeks for a solution to this moral disparity.[34] To that end, he notes that there are basically two different ways that philosophers have attempted to explain moral reality.

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[34] The following discussion summarizes Buchanan's account. Buchanan, *Beyond Humanity?*, 218—219.

Philosophers resort to either an Interest-Based account of morality, or an Intrinsic-Based account of morality. An Interest-Based account appropriates Moral Status centered in how much "good" the life of the being involves – this is assumed in, say, virtue theory. As Buchanan takes it, "good" here means the well-being of the individual. If a moral action negatively affect the well-being of the individual more so than refraining from that action, then the action is immoral (or vice versa). An Intrinsic-Based account of morality holds that all beings with certain capacities have an inviolable worth (at least in some sense). Under this consideration, there are no "degrees" of moral separation.

Buchanan finds the Interest-Based account of morality problematic. The main problem as far as he is concerned is that an Interest-Based account seems to operate on "*a continuum or gradient of moral considerability*."35 If there are a range of interests for a given individual, then some goods will "weigh" heavier than others. For Buchanan, this understanding of rights – as existing on this gradient scale – is actually incompatible with the understanding of rights as laid out in groups. Whatever moral groupings are created, they retain "sharp" divisions about what is due to each group.36 But these distinctions are largely blurred if the judgment of the individual comes into play in order to gauge how important some rights are *in comparison* to others.37

35 Ibid., 218 (emphasis in original).

36 Ibid.

37 For example, some individual who views morality more as an Interest-Based enterprise may view the needs of the family pet as being more valuable than the needs of a needy stranger. Even though the pet deserves respect (as a member of a certain group – animal pets), the rights of the needy stranger (a member of another group – human person) should take precedent even while trying to retain the rights of the pet. However, to maintain that members of the group of human persons are to have their rights met before those of the group of animal pets, only make sense *if* the individual is to recognize the rights of the needy stranger and the pet. If the individual *values* the rights of their pet more than the rights of some stranger (however, deserving they are of help), then this is evidence that the person has taken an Interest-Based approach to moral reasoning. It should be noted that the Interest-Based approach to morality has

Buchanan thinks the Intrinsic-Based account of morality is better all around. This, of course, means that what matters most for moral reasons is one's capacity in a relevant area. Based on the dictates of reason, something is moral or it is not – there is no ambiguity derived from the categorical imperative.[38] The Interest-Based view above cannot brook the rigidness engendered by an Intrinsic-Based approach. As Buchanan states, the Interest-Based approach must recognize "degrees of moral considerability."[39] That is, there is a moral deliberation of sorts that takes place in an Interest-Based approach that is absent from an Intrinsic-Based approach.[40] An Intrinsic-Based approach holds that having a certain capacity is what grants rights.[41] If rights are intrinsic, then they are best understood as a threshold concept – you either have it or you do not. If this

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more in common with a traditional virtue ethic than that found in an Intrinsic-Based approach – which can be adapted to either deontology or utilitarianism.

[38] The overlap here with Kant's deontological program is apparent. For Kant, having a certain rational capacity develops a notion of duty, which in turn grants an inviolable "right" as per the dictates of reason. Immanuel Kant, "Groundwork of the Metaphysics of Morals," in *Practical Philosophy*, trans. and ed. by Mary J. Gregor (New York: Cambridge University Press, 1996), 61, 65.

[39] Buchanan, *Beyond Humanity?*, 218.

[40] This acknowledgement is not unlike that of Alasdair MacIntyre who notes that moral deliberation is noticeably absent from deontological approaches. The Intrinsic-Based approach is reminiscent of some philosophers who tried to revive "the Kantian project of demonstrating that the authority and objectivity which belongs to the exercise of reason. Hence their central project was, indeed is, that of showing that *any rational agent is logically committed to the rules of morality in virtue of his or her rationality*." Alasdair MacIntyre, *After Virtue: A Study in Moral Theory*, 2nd ed. (Notre Dame, IN: University of Notre Dame Press, 1984), 66 (emphasis mine). This basically means that if morality is *rationally* determined, then there is no such thing as an exercise in moral judgment. All that needs to done, is to look at what is "rational." In contrast, an Interest-Based approach (specifically a Virtue-Based approach) must "weigh" outcomes and various "goods." There must a deliberation on which path is "best" to take in order to meet one's goals. Ibid., 220. Such considerations are lacking in the Intrinsic-Based approach adopted by Buchanan.

[41] Buchanan, *Beyond Humanity?*, 218—219.

is the case, then our psychological considerations or other motivations are simply

irrelevant to the moral calculus that determines rights and wrongs.42

The benefit to this approach according to Buchanan is that we can finally address

the "real" issue – it is *persons* that retain moral status, and it is *persons* that are the

objects of moral concerns (not just humans).43 It is *persons* that should be the locus of

moral value, not some ambiguous concept of "interests." Indeed, as a far as Buchanan is

concerned there simply is no better locus for moral consideration than the concept of

"person." Even under traditional religious thought, God, angels, and demons would be

considered persons even though they are not human. Further, should an alien from space

arrive in the near future or whether we bring forth a true "post-human" there is no reason

to think that they would not also be considered "persons" – assuming, of course, they

have the proper capacities. As such, the notion of "person" accomplishes in a moral sense

everything that "human nature" was supposed to achieve.

4.2.3.2 *Objections and Responses to Intrinsic-Based Morality*

For Buchanan, the person is the locus of moral value. As mentioned above, this

means that moral worth is a threshold concept – you either have it or you do not – and

anyone deemed to be a "person" would *have* moral worth. Indeed, higher capacities and

more abilities would not increase one's moral worth any more than having diminished

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42 Interestingly enough, Buchanan's approach to moral status completely removes intention as part of the consideration. Hence, for Buchanan it does not matter *why* I work at the soup kitchen, only that I do. I find this to be a strange reversal of sorts regarding moral consideration. For, as a Christian, intention is often thought to be the defining characteristic that makes some action moral or not. Thus, working in a soup kitchen out of love for God and others is moral, but working in a soup kitchen to curry favor and praises from others is not. Both actions may have good outcomes – the homeless being fed – but the motivations for performing the act dictates that one action is moral and the other is not.

43 Buchanan, *Beyond Humanity?*, 219.

capacities and fewer abilities lessen one's moral worth.[44] If a being can be considered a "person" then they are due all rights and privileges pertaining there to. Given this threshold concept of personhood, Buchanan finds it difficult to imagine even the possibility of there being a multi-tiered approach to morality.[45] For the multi-level morality only introduces itself in an Interest-Based approach, an Intrinsic-Based approach as Buchanan champions bypasses this whole discussion. It quite literally makes no sense to Buchanan that there can be multiple moral levels when the only moral value of any consequence is whether someone / something is a "person." For if that being is a "person" then they are due inviolable rights and retain moral value in virtue of the fact they are a person. There are no higher thresholds to meet nor are there criteria to establish before certain rights are granted. All that matters is whether one is a "person."[46]

Buchanan takes a final consideration. Namely, if one is going to say that post-persons could sacrifice the rights of mere-persons, then one of two scenarios must hold. Barring either scenario, it would be immoral for a post-person to sacrifice a mere-person's rights. The first thing that could happen that justifies a mere-person's rights to be sacrificed is to supply a threshold concept that post-persons have that mere-persons do not. Given that Buchanan already considers personhood a threshold concept, he sees no

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[44] Ibid., 220.

[45] Ibid.

[46] In reply, I am not sure I fully agree with Buchanan here. For while he finds it difficult (if not impossible) to imagine a multi-tier moral system, I find the concept not only possible, but actual. We already live our lives based on the notion that there is a graded morality. We already determine that some human lives are worth saving and others are not (and Buchanan acknowledges this). This is *not* to say that this is the way it should be. Indeed, there is something attractive in Buchanan's proposal. What I am saying is that it seems unlikely (to me at least) that the standard approach to moral evaluation would be fully adopted by society at large and by enhanced persons. There is simply too much psychological incentive to retain an Interest-Based approach to morality instead of dumping it in favor of a Buchanan style Intrinsic-Based approach.

need for creating a *greater* threshold. Indeed, he has argued forcefully, that the notion of "person" is itself a threshold concept that is morally inviolable. And it is this notion of "personhood" that provides equal Moral Status for both post-persons and mere-persons. The second route establishing a tiered morality is by adopting some sort of utilitarian gradation of moral values. As Buchanan has already endorsed more of a Kantian deontology, he does not find this route to be advantageous either. Hence, in answer to the question could a biomedically enhanced person be morally superior to mere-persons, Buchanan says that for an Intrinsic-Based approach (like his) the answer is "no," but an Interest-Based approach could answer "yes."[47]

4.2.3.3 Summary

Unenhanced humans have made great inroads in eliminating rights violations, despite the fact they still occur today. There is little doubt that modern humans have greatly reduced injustice in the world, even while acknowledging that the project is far from complete. The enhanced will know this history of rights violations (indeed, they will know it better than we ever could in our unenhanced state), and as such, Buchanan is confident that they will be able to avoid blatant violations of rights as well as increase equality across all population sectors. As he states it, "it is premature to conclude that, in a world in which biotechnology exacerbated the 'enhancement gap' among humans, the enhanced would 'inevitably' mistake or callously ignore the moral status of the unenhanced."[48]

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[47] Ibid., 224—225.

[48] Ibid., 226.

Nicholas Agar notes that among a capacity approach to Moral Status there are two different ways to examine the issue. First, recognize that there is "some degree" of difference between higher and lower capacity beings. As such, beings with a higher capacity in some relevant criteria (i.e., intellect, moral sensibility, etc.) would enjoy a higher Moral Status than beings with lower capacities. Hence, human beings with a relatively higher capacity for intellect are generally deemed more important morally than a garden variety lab rat (which has low intellect) or a fichus tree (which has no intellect). The second option is to note that there is "no degree" of difference among beings that meet a minimum of threshold. Hence, once the relevant criteria is meet (i.e., "personhood") there is simply no higher Moral Status that could be granted. We may recognize humans as higher than lab rats, but once a being has been granted the status of "personhood" (whether human or not), then there is no higher moral category to which they can appeal.[49] It is to this second understanding that Buchanan appeals.

4.2.4 Would it be Morally Wrong to do Away with "Human Rights"?

Transhumanism and posthumanism are not the first philosophies to dispense with the notion of "human rights." Given the metaphysical naturalism that undergirds much of the enhancement projects, humans are thought to be no more than one link in an evolutionary tale – one that moves from microbe, to small mammal, to primate, to human, to transhuman, and ultimately to posthuman. Nietzschean notions of the *Übermensch* play a significant role in the language transhumanists use to describe their project. The need to "overcome" our biological limitations. The need to "guide" evolution. The desire to "master" nature. This, of course, is reflected in another

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[49] Agar, *Truly Human Enhancement*, 178—179.

Nietzchean idea – the "will to power."[50] Jeffrey Bishop notes that these converging concepts reveal the "god of these tranhumanist philosophers" is the perceived ideal of the posthuman.[51] It is an idol of the mind. And the impact of this idol is the elimination of human rights.

The only "rights" we have are the ones we claim. In effect, transhumanism is a philosophy of power. Again, it calls forth Nietzsche's notion of "will to power." It is what Bishop calls a "power ontology."[52] Transhumanists may claim that they do not want to exert total mastery over nature, nor do they seek perfection, but these denials are unpersuasive given the stated goals of the movement. How can a near immortal life span be seen as anything other than an attempt to master nature? How can the pursuit of cognitive enhancement be interpreted as anything other than a quest for perfect knowledge? How can the prioritizing of autonomy in engaging enhancement technology be viewed as something other than an exertion of will over "nature"? Since it is our wills over nature that matter, there is nothing inherent in nature to which our wills must conform. And since human rights based in human nature is thought to be a false belief, it follows that if there are anything like "rights" then they are a reality that *we* create. And since *we* are the ones creating these "rights," there is no harm in doing away with the

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[50] Friedrich Nietzsche, *Beyond Good and Evil: Prelude to a Philosophy of the Future*, trans. by Walter Kaufmann (New York: Vintage Books, 1966), 21.

[51] "The transhumanist metaphysical belief is that we human beings are on an evolutionary journey, from human to posthuman; . . . The philosophy of transhumanism seeks to order evolutionary becoming. . . . Here, however, the god of these transhumanist philosophers is the god that orders the creative power toward a new being, a new god, that is to say toward the posthuman. Transhumanist philosophies, in my estimation, are the coincidence of eternal and creative forces of becoming just as they turn in the conscious moment toward control, toward mastery. Transhumanism seeks to differently embody the *Übermensch*." Jeffry P. Bishop, "Transhumanism, Metaphysics, and the Posthuman God," *Journal of Medicine and Philosophy* 35 (2010): 707.

[52] Ibid.: 706.

older morality that attempted to base rights in human nature. Put simply, because there *is* no such thing as human nature, there cannot be such a thing as human rights based on it. If there are "rights," then we create them.

Further, enhancement technologies may change "human nature" (or at least what is thought of as human nature), but even so, there are three reasons why this may not be such a bad thing. First, appealing to "nature" in the past has resulted in an unsavory human history. As Mark Sagoff comments, "The term unnatural can be used thoughtlessly and indefensibly simply to denigrate practices or activities that some people may find offensive."[53] For example, homosexuals are (or have been) routinely condemned for not engaging in "natural" relationships. For a long time, slavery was justified under the (incorrect!) pretense that some people were born to be servile. Second, one could argue that we cannot derive an "ought" from an "is."[54] That is, we cannot use statements about what is "natural" to determine what is "moral." Again, as Sagoff notes, even if we *could* tie morality to our genetic structure, given the poor ethical record of human beings perhaps we *should* "sever that connection."[55] Finally, it has already been noted that human beings have already changed their nature through harnessing various technologies – hence, appealing to "nature" is pointless since we have already surpassed "nature" in many respects. As such, the question is would it be truly wrong to do away

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[53] Mark Sagoff, "Nature and Human Nature," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 73.

[54] David Hume and G. E. Moore have argued along these lines. See, David Hume, *Treatise on Human Nature* (London: Penguin Books, 1985), especially 3.1.1, and G. E. Moore, *Principia Ethica* (Cambridge, UK: Cambridge University Press, 1903).

[55] Sagoff, "Nature and Human Nature," 73.

with the older notion of "human rights"? The answer can plausibly be answered, no. No it would not be wrong to dispense with the old notion of "human rights" and insert our own notions of rights. Whether that be based on rational capacity, moral capacity, emotional capacity, or some other criteria. We can create new and different "rights" because we have already been doing so all along.

4.3 Common Counter Claim: "Human Nature" is the Only Relevant Moral Factor

The transhumanist philosophy is largely based on the idea of reshaping things – sexuality, gender, family, society, etc. It is typically a rejection of "conservative" views on the general immutability of species – a backbone to "creationists" understanding of the world.[56] One area that is rapidly changing is what it means to have moral worth. Traditionally, human beings were seen to occupy the highest rung of the axiological ladder. The rise of transhumanism has favored a displacement of that ladder with a more equitable approach.

There is no *one* definition of "human nature," nor is there one single understanding of what it means to be human or to have moral worth. Despite this non-consensus, there nevertheless remains a general notion of what it means to be human. And it is to this general notion of human beings and human nature that drives much of the discussion in traditional and religious circles. Nicholas Agar reminds us that "'Human nature' is a *cluster concept*. It comprises a range of conditions, none of which is individually necessary or sufficient."[57] This "range of conditions" is precisely what

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[56] Stephen Garner, "The Hopeful Cyborg," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 91.

[57] Nicholas Agar, *Humanity's End: Why We Should Reject Radical Enhancement* (Cambridge, MA: The MIT Press, 2010), 21 (emphasis in original).

Francis Fukuyama wants to explore. Taking a more Aristotelian angle to human beings, Fukuyama argues that humans are identifiable within a certain genetic and behavioral range. Anyone who falls within that range can be considered a human being, and if they are human, then in good Aristotelian fashion some *telos* should be discoverable by observing their behavior and desires. But if we are able to find a *telos*, then this could serve as the basis for recognizing certain human rights. As he puts it, for "while human behavior is plastic and variable, it is not infinitely so; at a certain point deeply rooted natural instincts and patterns of behavior reassert themselves to undermine the social engineers best-laid plans."[58] Fukuyama's project, then, is to discover the genetic and behavioral range to which we can say *this* is a human being and *this one* is not. From there he hopes to establish a system of human rights. Whereas Buchanan denied the existence of human nature and, thus, any rights based on it, Fukuyama affirms a human nature and rights based on it.

4.3.1 Human Rights Are Based in Human Nature – Francis Fukuyama

Fukuyama follows the Aristotelian approach to determining moral worth. The basic idea here is that human rights are based in human nature, and human nature is determined by observing natural human desires, purposes, traits, and behaviors. For without this knowledge we cannot make proper judgments about what is "good and bad, just and unjust."[59] This, of course, is in contrast to more utilitarian approaches to human good which often reduce human ends to the simple calculus of what brings the most

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[58] Fukuyama, *Our Posthuman Future*, 14.

[59] Ibid., 12.

"pleasure."[60] Human goods are grander, deeper, and thicker than a simple comparison about what brings pleasure. Some things may not be pleasurable at all, but still be "good" for us.[61]

Because Fukuyama takes human nature to be important, he needs an acceptable definition to get the discussion started. He defines *human nature* as "the sum of the behavior and characteristics that are typical of the human species, arising from genetic rather than environmental factors."[62] This implies there is a range to the qualities that comprise human beings. Genetics may limit certain characteristics, but it allows for a wide variety of expression within the same species. Hence, humans can be very short or very tall. They can be very thin, or very large. However, humans cannot achieve just *any* possible height or body size. As Fukuyama states, "there are limits to the degree of variance possible, limits that are set genetically."[63] A society that is malnourished will tend to be shorter and thinner than a society that has an overabundance of nourishment. But in either society, not just any possible height or weight will be achieved. Likewise, behaviorally, humans can modify their actions and attitudes pending environmental, cultural, and personal engagements.[64] All of this points to the idea that there is not just one ideal human person or culture, but rather that the range of characteristics and behaviors *must* be taken into account for an accurate assessment.

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[60] Ibid., 12—13.

[61] I may not like having a cavity filled (is there just about anything less pleasurable?), but this would still be good for me and my dental health.

[62] Fukuyama, *Our Posthuman Future*, 130.

[63] Ibid., 132.

[64] Ibid., 130.

Any account of human characteristics must note the "intimate connection between human nature and human notions of rights, justice, and morality."[65] Western society's modern democratic political notion is thoroughly reflective of contemporary thought on moral and ethical issues. And this in turn is reflects an ultimate basis for a human *telos*. Humans have a purpose, an end, revealed by human morals and ethics, which is based on some concept of human nature.[66] However, it is currently unfashionable to establish human rights on human nature – as explored above with Buchanan. Fukuyama takes this trend to be "profoundly mistaken." He notes that both philosophy and common sense reveal that our moral sense is thoroughly based in our conceptions of "human nature." Hence, part of the reason he resists certain enhancement technologies (specifically biotechnology) is precisely because he sees these sorts of alterations affecting us at the level of our very nature. Thus, by altering what we *are*, we alter what we *value*.[67]

Harkening back to the early Greeks, Fukuyama acknowledges that the modern notion of "rights" and "duties" is at odds with both Plato and Aristotle who (with much of Western civilization after them) were concerned about what was "good" for humans. Their approaches were decidedly *eudaimonistic* – what matters is for people to achieve their end, their *telos*. As such, there was no language of "rights" and "duties" as understood in modern parlance. Rather, any discussion they give of "rights" or "duties" would be in service to achieving virtue. Because of the rich background that the ancient

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[65] Ibid., 101.

[66] Ibid., 106.

[67] Ibid., 101—102.

Greeks assumed, Fukuyama finds the contemporary discussion on "rights" and "duties" shallow and "impoverished."[68]

Nevertheless, the common language of "rights" and "duties" are the tools by which the discussion proceeds. Hence, instead of dispensing with these notions, Fukuyama attempts to reform them. Thus, a "right" is simply understood as a moral judgment. Likewise, the term "right" is the basic principle for even discussing issues of justice.[69] No contemporary discussion on morality or ethics can do without some understanding of rights. We endow the notion of "rights" with great moral significance. Indeed, the notion of "rights" exceeds any notion of "interest" since an "interest" is assumed to be malleable – it can vary depending on one's mood. A "right," however, is often assumed to be stable and (somewhat) objective.[70]

Rights can be derived from religion, humanity itself, or nature. Rights based in religion are difficult (if not impossible) to establish in a pluralistic and secular society. There are simply too many different visions of what divine reality may or may not be to establish any broad consensus of what rights *are*.[71] Rights based in humanity itself are understood as civil rights – these rights are granted to a citizenry in virtue of being a member of that society. These types of rights are socially determined and vary from society to society. Hence, one society may entitle their citizens to healthcare, but another may not. These types of rights will be more or less dependent upon the foundational

[68] Ibid., 108.

[69] Ibid.

[70] Ibid., 110.

[71] Ibid., 111. However, I have attempted to provide a reasonable basis for a religious view of human nature in chapter 3.

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beliefs of that society and will vary accordingly.[72] The remaining way to establish rights

is by examining nature. And it is to this notion of "human nature" that we can now turn.

The notion of human nature has been criticized for the past three centuries. Often

the claim is that appealing to human nature is to commit the "naturalistic fallacy." That

is, "nature cannot provide a philosophically justifiable basis for rights, morality, or

ethics."[73] Fukuyama thinks the naturalistic fallacy is itself fallacious – it relies on a post-

Kantian understanding of human beings. Fukuyama himself prefers a pre-Kantian

conception of human nature.[74] He finds Aristotle closer to the truth of human nature than

Kant. So, why does he find the naturalistic fallacy problematic? He notes that the

naturalistic fallacy often relies on two arguments. First, the "is / ought" fallacy as

described by David Hume – that is "a statement of moral obligation cannot be derived

from an empirical observation about nature or the natural world."[75] Just because humans

seem to act in some genetically programmed way, it does not follow that this is how

humans *should* act. Moral obligations are thus thought to be based in some other source

than "nature." Second, "even if we could derive an 'ought' from an 'is,' the 'is' is often

ugly, amoral, or indeed immoral. . . . human nature . . . is not very pleasant to behold, and

would serve poorly as a basis for political rights."[76] The first argument says that human

nature cannot serve as a basis for morality because we cannot determine what is right and

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[72] Ibid., 112—113.

[73] Ibid., 112.

[74] Ibid.

[75] Ibid., 114. See also, Hume, *A Treatise of Human Nature*, Bk 3, part 1, sect. 1.

[76] Fukuyama, *Our Posthuman Future*, 115.

wrong from what humans do. The second argument says that even if we were to derive right and wrong from what humans do, then it would be a terrible morality indeed. So, if we look at moral values, we realize they are not based in human nature, and if we look at human actions, we would not want to base morality on it. In either case human nature is an improper grounding for moral rights.

In response to the first argument, Fukuyama (following Alasdair MacIntyre[77]) argues that Hume did not really believe that you could not derive an "ought" from an "is." Instead, "oughts" cannot be established by an "is" in an *a priori* way. Hume, like most western philosophers preceding him, thought the "ought" and "is" could be "bridged by concepts like 'wanting, needing, desiring, pleasure, happiness, health' – by the goals and ends that human beings set for themselves."[78] And if it is possible to use human desires as the middle term between "ought" and "is" then there is no hard separation between the two. As such, "oughts" can in some way be derived from an "is." It *is* the case that humans *want* peaceful and beneficial relationships, thus they *ought* to act in a way that encourages such relationships.

Fukuyama goes on to note that bridging the "is" and "ought" can be more clearly seen by examining their relationship and entanglement with human emotions and feelings. As he puts it, the "oughts" that are derived by moral reflection are every bit as complex as the human emotional state. As such, "there is scarcely a judgment of 'good' or 'bad' that has been pronounced by a human being that has not been accompanied by a

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[77] Alasdair MacIntyre, "Hume on 'Is' and 'Ought,'" *Philosophical Review* 68 (1959): 530—554.

[78] Fukuyama, *Our Posthuman Future*, 115.

strong emotion, whether of desire, longing, aversion, disgust, anger, guilt, or joy."[79]

Hence, simply because of the emotional input in determining what "is" the case, how we

determine values is not wholly a *rational* decision (contra Kant).[80] This relationship

between the emotions and morality was more clearly seen by the pre-Kantian

philosophers due to their general resistance to reducing humans to merely rational

capacity.[81]

Many of the pre-Kantian moralists were operating in the Aristo-Thomistic

tradition which stressed virtue. Virtue was thought to expand upon what "nature provided

us" since there could be no necessary conflict between what was considered "natural"

and what was considered morally "right."[82] This attitude has since shifted since the time

of Kant to stress the ability of the will to overcome our nature. Fukuyama must then ask,

"how can any particular 'natural' behavior be the basis of natural rights?"[83] That is, how

can we establish what is right and good for humans based on what they do? Another way

of asking this is, how can human nature establish a system of rights? Fukuyama responds

by noting that we need to connect rights with human ends via philosophy.[84] This is, of

course, a decidedly Aristotelian approach which attempts to identify the natural ends

(*telos*) of humans as what establishes rights.

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[79] Ibid., 116—117.

[80] Ibid., 117.

[81] Ibid.

[82] Ibid., 119.

[83] Ibid., 125.

[84] Ibid.

Fukuyama notes that establishing a list of rights based on human nature is not easy – for both (human nature and human rights) are complex and flexible. What he objects to, however, is that these are infinitely malleable. There is a range of human nature, and with it attending rights.[85] For example, it is insufficient to point at human violence and oppression as the sole reasons that rights cannot be based on human nature. While violence and oppression have shaped much of human history, humans are simply more than violent and oppressive beings. Human nature "encompasses a great deal more than" violence and oppression.[86] Human history is shaped not just by violence and oppression, but by love and compassion as well. Humans feel the need to create order and curb violence, and they feel compelled to expand personal freedom and reduce oppression. And it is these tendencies that speak just as much about human *telos* as does the perpetration of violence and oppression. Indeed, the fact that humans exhibit altruism is a testament that humans value some goods other than simply violence and oppression.[87]

4.3.2 Insufficient Arguments Against Human Nature

Fukuyama lists three common arguments against the notion of human nature. The first says that there is no true human nature, because there is no such thing as a universal common nature applicable to all humans (this is a rejection of the platonic notion of "humanness").[88] The problem with this objection is that it too narrowly defines what a

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[85] Ibid., 128.

[86] Ibid., 126.

[87] Ibid., 127.

[88] Ibid., 133.

universal *is*. It is true there is no median quality among all humans, but this does not mean that there is no qualities that are not broadly shared among all humans. "A characteristic does not need to have a variance (standard deviation) of zero to be considered a universal, since almost none exists."[89] No broadly based society has all of its citizens with the exact same attribute – even if there are significant similarities. Fukuyama argues that the characteristic variant must be relatively small to be considered a universal – but it does not need to be zero. The operative idea here is the idea of a bell curve, not a point. There will be deviations below and above the average expression of the quality, but not infinitely so. The characteristic under consideration will share close to the same magnitude for the bulk of the citizenry.

A second objection is that genotype does not determine phenotype. Our genes are affected by our environment and thus under varying conditions the actual being that develops can fluctuate significantly. In theory, genetic twins exposed to radically different environments from the earliest stages of development could look significantly different even though their DNA is the same. Fukuyama finds this argument interesting but not a substantive denial of human nature.[90] For the parameters that DNA sets are what is implied by human nature. The twins just mentioned may develop drastic differences, but it is unlikely that one would develop wholly different biological parts than the other (like a tail or scales). And it is the fact that there is a limit to the divergence between these beings that establishes a common element between them. Human nature is found in the parameters, not in any singular expression.

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[89] Ibid., 134.

[90] Ibid., 135—136.

The third objection Fukuyama mentions is that humans modify their behavior through cultural expression and pass those teachings to their offspring, thus creating wildly divergent behaviors. Thus, if there were a common human nature, then these divergences would be mitigated – but they are not. Fukuyama thinks not only does this create a straw-man of "human nature" but it is empirically false.[91] There are indeed noteworthy cultural values which conflict with other societies. However, there are also substantial cultural similarities and shared moral values. As such, cultural expression does not mitigate human nature, but rather reinforces its reality. For if there were no human nature then the argument should be *not* that different societies elicit divergent moralities, but that some societies have one morality and others have *none*.

4.3.3 Establishing Human Dignity

One basic category that establishes the rights of any sentient creature is if it can feel pain – if it can experience suffering.[92] Humans are often uneasy in causing unnecessary pain to other creatures. The recognition of pain acts as a dividing line that instructs us if some action may be immoral. Any action that results in pain *may* be immoral – however, some necessarily moral actions may result in pain (i.e., root canal). Now, this avoidance of pain is a primary reason why many humans routinely demand that others recognize their dignity as members of religious, ethnic, racial, or gender groups.[93] They do not want to feel pain, and we are often compliant in not wanting them to experience pain. But despite the role pain plays in determining the morality of some

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[91] Ibid., 137—138.

[92] Ibid., 143.

[93] Ibid., 149.

action, it is thought to be insufficient for establishing true "rights." Given the fact we can clearly name examples when pain is necessary, the avoidance of pain *per se* cannot be a sufficient moral guide.

Fukuyama proposes that we look for some universal feature that establishes human dignity. He is looking for some characteristic that all people recognize the need for equal treatment. As he puts it, what "the demand for equality of recognition implies is that when we strip all of a person's contingent and accidental characteristics away, there remains some essential human quality underneath that is worthy of a certain minimal level of respect—call it Factor X."[94] Factor X has been highly contested, but is often understood as that most basic quality that is what it means to be human.[95]

Fukuyama thinks this Factor X is important for establishing human dignity. He acknowledges that it cannot be reduced to moral behavior, rationality, language, sociability, consciousness, emotions, sentience, or any other number of qualities. Rather, Factor X is made up of *all* of these qualities. And this is based on the idea that *every* human has a certain genetic capacity for being a "whole human being" distinguishable from other types of creatures that may even share *some* of these qualities.[96] Fukuyama takes it as obvious that none of the qualities just listed can exist in any substantial sense

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[94] Ibid., 149.

[95] Ibid., 150.

[96] "Factor X cannot be reduced to the possession of moral choice, or reason, or language, or sociability, or sentience, or emotions, or consciousness, or any other quality that has been put forth as a ground for human dignity. It is all of these qualities coming together in a human whole that make up Factor X. Every member of the human species possesses a genetic endowment that allows him or her to become a whole human being, an endowment that distinguishes a human in essence from other types of creatures." Ibid., 171.

without the existence of the others.97 Humans are complex creatures resistant to reductive analysis.98

Human behavior evades the modern scientific drive towards reductionism. It is simply too complex to be modeled in a simple fashion. Wholes may be traceable to their simpler parts, but there is no predictive model that shows understanding the simpler parts will be able to predict the behavior of the whole.99 This sort of reductionist puzzle may work with purely material objects, but if humans are not purely material objects, then reductionism will fail as a method to predict human behavior. Rather, what is needed to understand human behavior is a model at the macro level, not the micro level. We need to understand the complex relationships and environmental and cultural interactions in which humans engage, not just examine humans at the cellular and biological level.100

The human experience combines in a way that is unique to the types of creatures we are. As Fukuyama notes, it "is not sufficient to argue that some other animals are conscious, or have culture, or have language, for their consciousness does not combine human reason, human language, human moral choice, and human emotions in ways that are capable of producing human politics, human art, or human religion."101 It is the combination of these complex behaviors that are unique to the human experience and

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97 For example, he notes that moral behavior is shot through with rationality and emotion. And emotions are important for helping humans develop "purposes, goals, . . . wants, needs, desires, fears, aversions" as well as establishing a source for human values. Human emotions are important for producing "purposes, goals, objective, wants, needs, desires, fears, aversions, and the like and hence is the source of human values." Ibid., 169.

98 Ibid., 171—172.

99 Ibid., 163.

100 Ibid., 164.

101 Ibid., 170.

contribute to the notion of human dignity. The denial of human dignity is a perilous path.[102] Cheapening human worth will invariably lead to injustice for those deemed less than human.

4.3.4 The Importance of Embodiment

Gilbert Meileander remarks that our personal histories (i.e., our memories) "do not require the presence of 'personal' capacities throughout."[103] It is the living body that is "the locus of personal presence."[104] Embodiment is often neglected for it is no longer thought to be important to the definition of the person, and given the fact that the body can be (relatively) altered with ease is taken as further evidence that the body is not important for personal identity.[105] Leon Kass reacts against the transhumanist push to get past the body. For Kass, the body is not something to be neglected, nor is it something that should be summarily discarded once it is no longer needed. As far as he sees it, embodiment "is a curse only for those who believe they deserve to be gods."[106]

That transhumanism is largely attempting to do away with the body is a controversial claim to be sure. Many transhumanists will object to the characterization on grounds that many projects specifically target enhancement of *the body*. Indeed, "Embodiment as constitutive of personhood makes clear the distinction between cyborg

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[102] Ibid., 160.

[103] Meilaender, *Bioethics*, 6.

[104] Ibid.

[105] Christina Bieber Lake, *Prophets of the Posthuman: American Fiction, Biotechnology, and the Ethics of Personhood* (Notre Dame, IL: University of Notre Dame Press, 2013), 14.

[106] Leon R. Kass, *Toward A More Natural Science* (New York: The Free Press, 1985), 293. Quoted in, Gilbert Meileander, *Body, Soul, and Bioethics* (Notre Dame, IN: University of Notre Dame Press, 1995), 57.

and transhumanist anthropologies."[107] Cybernetics, genetics, nanotechnology, and the like are premised on the assumption that the person must be embodied in some *way*. As such, to claim that transhumanists do not approve of embodiment smacks of excessive hyperbole. However, that some transhumanists wish to wholly transcend the body is also commonly known. Ray Kurzweil's mind uploading project is specifically pursued as a way to transcend the body (as discussed in chapter 6).

As such, critics of transhumanism's view of the body can be found in two stripes. The first (and most common) critique is that transhumanism wants to do away with the body in toto – which is contrary to human flourishing. The second critique is that transhumanism's belittling of the body is also contrary to human flourishing by not appreciating (in some sense) the ways in which the admittedly limited human body is "good." Either way, transhumanists (as well as posthumanists) tend to disparage the body and view it as an object to be controlled through technology.[108] Meileander notes that the problem is that transhumanists seem to be confused. As he puts it, the vision of the person transhumanists want to achieve is incompatible with the vision of that person "where they are wrong." For example, he says that transhumanists tend to believe that caring for some people is futile if that person does not behave or exhibit the types of capacities that transhumanists value – even if the person is not terminally ill. Rather, transhumanists support a vision of personhood that is divorced from the organic body.[109]

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[107] Matthew Zaro Fisher, "More Human Than the Human? Toward a 'Transhumanist' Christian Theological Anthropology," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 27.

[108] Ibid., 23.

[109] Meileander, *Body, Soul, and Bioethics*, 54.

Transhumanists and posthumanists generally see the body as a frail and limited

biological contraption that *needs* technological intervention in order for us to achieve our

desires and goals. As Brent Waters phrases it, the "posthuman solution is to free the will

from the bondage of finitude by constructing a better prosthetic of the will. . . . The will,

then, can become genuinely free only by diminishing the finite limits or constraints of

embodiment."[110] Under this constraint, the body *must* change in order to meet the needs

of the human will. As such, transhumanists tend to hold that our bodies are the problem,

but as J. Jeanine Thweatt-Bates notes, paying attention to our bodies is actually the

solution.[111] This is because it is specifically our bodies that make us human, and the

assumption is that there is something special about being human – the human being is

worth preserving. Thus, critics of any movement to displace the body tend to be

unimpressed with efforts to do that very thing. As Waters comments, "the posthuman

project is predicated upon a fundamental contradiction: for humans to achieve their full

potential, they must destroy their bodies, but in doing so they destroy the very thing that

makes them human."[112] Gilbert Meileander agrees with this assessment and further notes

that the spirit (i.e., mind) cannot be accessed apart from the living body itself – the spirit

of each person is incarnated.[113] That is, the body is of sacred importance. As such,

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[110] Brent Waters, "Flesh Made Data: The Posthuman Project in Light of the Incarnation," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 295.

[111] J. Jeanine Thweatt-Bates, "Artificial Wombs and Cyborg Births," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 108. She is following Donna Haraway in this assessment.

[112] Waters, *This Mortal Flesh*, 157.

[113] Meilaender, *Bioethics*, 6.

enhancement technologies – especially genetic modifications – may offer only illusory benefits since their goals are to replace the function of the soul (i.e., the formal and guiding principle of the body). "The body is altered, but the soul is not"[114] in genetic modification.

The transhumanist tendency to repudiate the body is perhaps the biggest conceptual obstacle for modern Christians to accept.[115] The incarnation of Jesus offers a critique against those who wish to escape the body and pursue some incorporeal form of existence, digital or otherwise. "Embodiment matters, and those who choose to celebrate the flesh as part of their being should not be denigrated."[116] However, this should not be taken to mean that *only* the body matters. In a similar way that the incarnated Christ was both physical and spiritual, so too are we physical and spiritual. Our bodily existence is in some way also transcendent. Jesus' dual nature has historically been celebrated by the Church, and likewise we need to recognize the dual aspect of human nature as well.[117] Humans are both mind *and* body. "The incarnation, birth, crucifixion, resurrection, and

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[114] Harold W. Baillie, "Aristotle and Genetic Engineering: The Uncertainty of Excellence," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 216.

[115] Lee A. Johnson, "Return of the Corporeal Battle: How Second-Century Christology Struggles Inform the Transhumanism Debate," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 274.

[116] Stephen Garner, "The Hopeful Cyborg," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 95.

[117] Ibid.

ascension are all physical landmarks. Matter *matters*."[118] And because, "matter *matters*"

radically disengaging from the body is a taboo to all Christian traditions.[119]

Given that the Christian tradition places such a high view of embodiment due to

the incarnation, it has commonly been interpreted that this must mean that our bodies say

something about human dignity. As Karen Lebacqz says, "our dignity must reside to

some degree in accepting our embodiment and honoring the limits that it places on us."[120]

That is, the incarnation affirms that embodiment is both good *and* finite.[121] And if this is

the case, then "personhood" is not something separate from our embodied experience.

We do not gain "personhood" at some point in time, but rather we are "persons

throughout the whole" of the finite embodied life.[122] And being finite entails being

dependent on others.[123] This dependence can be understood in multiple senses, by being

dependent on society or God. As social creatures we are dependent on society to fulfill

our temporal ends. No one person can achieve all that is needed to experience a

flourishing life apart from some cooperative society. Christians will also add that our

moment by moment existence is dependent upon God's grace (cf. Col. 1:15-17). It is God

who "owns" the universe – we are but stewards of God's creation. Even our own lives are

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[118] James C. Peterson, *Changing Human Nature: Ecology, Ethics, Genes, and God* (Grand Rapids, MI: William B. Eerdmans Pub., 2010), 65 (emphasis in original).

[119] Celia Deane-Drummond, "Remaking Human Nature: Transhumanism, Theology, and Creaturliness in Bioethical Controversies," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 252.

[120] Karen Lebacqz, "Dignity and Enhancement in the Holy City," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, DC: Georgetown University Press, 2011), 52.

[121] Waters, "Flesh Made Data," 295.

[122] Meilaender, *Bioethics*, 7.

[123] Ibid., 7.

owed to God, not ourselves. Our lives are not our own. And it is this understanding of embodiment that permeates much of the religious critique of transhumanism.

Transhumanists often see the body as something that is "owned" by the person, but for Christians the body is owned by God. The body is to be cared for and tended primarily because it is not wholly ours. This in turn highlights why some transhumanist critics disapprove of the transhumanist for wholesale alteration of the body – for changing the body at its most fundamental level can be interpreted as a sin against the body.[124] If someone owns their home, then they can make any changes to it they desire, but if they simply rent the home (i.e., it is owned by someone else), then any changes will be inappropriate apart from the owner's permission. Similarly, wholesale modifications of the body can be appropriate if, at bottom, we are the ones who own our body. Since many Christians disagree with the idea that we own our body, it would be inappropriate to alter the body to any significant degree.

4.4 Brief Evaluation of Both Positions

Both supporters and critics of enhancement acknowledge that enhancements can decrease human dignity. Karen Lebacqz remarks that "the preservation of dignity has something to do the *way* in which things are done and with keeping them preeminently human."[125] For Leon Kass, bodily limits must be honored to maintain human dignity. For Nick Bostrom, the ability to choose certain enhancements is how human dignity is

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[124] Cory Andrew Labrecque, "Morphological Freedom and the Rebellion against Human Bodiliness: Notes from the Roman Catholic Tradition," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 309.

[125] Lebacqz, "Dignity and Enhancement in the Holy City," 55 (emphasis in original).

expressed – it is not limited to just the bodily elements.[126] The transhumanist and posthumanist proponent claims that to "be a person is to be, or have the capacity to be, an autonomous chooser, to take control over one's personal history, determining its bounds and limits."[127] This sense of complete autonomy is challenged by the transhumanist critic – we can neither control our personal history, nor can we be the determiners of the absolute bounds and limits.

Above, two different accounts of the basis for human dignity were explored. Allen Buchanan placed dignity in a moral notion of "personhood." Francis Fukuyama attempted to recapture the Aristotelian notion that "human nature" is the grounding for moral order. Below we will look at the primary arguments against these two positions. There will be a discussion on the problems associated with taking a "personhood" only approach to morality, as well as the problems associated with a "human nature" only approach.

4.4.1 Problems with "Personhood" Only

There are a number of problems associated with a "personhood" only approach to human dignity. Below are four critiques. The first is a series of general criticisms of the "personhood" project with the main critique being that it unnecessarily reduces human beings to primarily a rational entity – "reason" *is* the most important quality. The second criticism takes aim at the importance of autonomy as the moral impetus for pursuing any desired goal. Does autonomy grant the sort of the broad, sweeping provisions needed to pursue extreme enhancement technologies? The third criticism takes aim at Buchanan's

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[126] Ibid.

[127] Meileander, *Body, Soul, and Bioethics*, 52.

insistence that Moral Status will be equitable in a posthuman future. The criticism

revolves around the notion that Moral Status will not only be unequitable, it will be

exacerbated by the ontological differences separating posthumans from mere humans.

The final critique addresses some concluded thoughts on issues related to "personhood."

4.4.1.1 General Critique

Buchanan opts for a "personhood" only approach because of some problems he

has with the concept of "human nature." However, Buchanan's account of "human

nature" meets with two objections from the start. The first is that his beginning definition

of "human nature" seems to beg the question in favor of a "positivistic" approach to

looking at human beings. By essentially defining away any non-physical aspect of human

beings (rather than arguing for it!), Buchanan limits the pool of possible candidates for

what "human nature" *is*. The second, and closely related, issue is that Buchanan seems to

just reduce "human nature" to its "scientific" account. He takes the evolutionary

paradigm as the sole interpretive framework for positioning human enhancement. This, of

course, is too restrictive and inappropriate from a theological perspective. The consistent

Christian tradition holds that while humans are not less than material / physical beings,

humans are *more* than their physical parts. By limiting the only relevant starting point to

being our evolutionary origins, he essentially neglects a whole realm of data that many

take as relevant to the discussion.

Much of Buchanan's reason for adopting this approach to "human nature" (among

other transhumanists) is due to a prior commitment to scientism. Scientism tends to

reduce the human to their constituent parts, and the moral worth of the individual

disappears accordingly. Tying value and worth to current capacities rather than potential

capacities diminishes the individual consequently.[128] By making humans the current product of a haphazard evolutionary process, Buchanan has stacked the deck for reader to accept the "need" for technological enhancement – as a way to curb blind evolution and bend it to our will.

Fukuyama critiques a personhood only view (which he argues reinforces a Kantian deontology) by noting that philosophers who attempt this route of establishing a moral system invariably insert their own assumptions about what is essential to human nature.[129] Instead of dismissing the idea of human nature, they reinforce it in their own terms.[130] Kant, for example, made "reason" essential to humans – Buchanan makes the same move. But in doing so, this does not empty human nature of qualities, but asserts one quality above all others. Fukuyama comments that it is difficult not to just paraphrase Hume and note that these deontologically minded philosophers shift "from *ought* and *ought not* to *is* and *is not*, since they no more than anyone else can avoid basing what 'ought' to be on what typically 'is' for our species."[131] Buchanan essentially says we *ought* to respect other persons, because a person *is* a rational being which is worthy of respect. That is, he makes reason the essential quality that defines "person." Thus, what is essential to human nature (or at least what is most relevant) is one's reason.

Meileander takes it that the issue is better understood in terms of control. He remarks, "In an age supposedly dominated by modes of thought more natural and

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[128] Lake, *Prophets of the Posthuman*, 40—41.

[129] Fukuyama, *Our Posthuman Future*, 120.

[130] Fukuyama critiques Kant, Rawls, and Dworkin as examples of philosophers who have emptied the classical notion of human nature with their own assumptions about what human nature entails. Ibid., 120—122.

[131] Ibid., 123.

historical than metaphysical, we have allowed ourselves to think of personhood in terms quite divorced from our biological nature or the history of our embodied self."[132] He pushes back against the notions that "being a [human] person has more to do with being in control than with being embodied" and "Human beings are neither essentially sexual nor parental, but the technological impulse *is* central to their being."[133] Both of these notions are misguided. The first, because control follows upon being embodied – if a human is not *first* embodied, then they cannot later be "in control." The second is misguided because it is a direct denial of two central urges – procreation and childrearing. Humans may suppress the urges as the celibate or the childless do, but to proclaim that humans are not essentially geared toward sex and family seems to contradict the entirety of human history, which is one great story of love, sex, and kinship relations. This is not to say that the second part of the statement does not contain truth, however. The technological impulse is certainly indeed part of human nature, but it is not there *in place of* the sexual or parental inclinations. Thus, as a general critique of Buchanan – he places too much emphasis on the rational aspect of human beings to the neglect of the bodily and emotional aspect. Humans are embodied creatures in which the emotions and primal drives deriving from that basic experience largely shape the types of beings we are.

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[132] Meileander, *Body, Soul, and Bioethics*, 42—43.

[133] Ibid., 44 (emphasis in original). It is Joseph Fletcher's understanding of persons that Meileander is addressing here. Cf., Joseph Fletcher, "Indicators of Humanhood: A Tentative Profile of Man," *Hastings Center Report* 2 (Nov. 1972): 1—4. And Joseph Fletcher, "Four Indicators of Humanhood – The Enquiry Matures," *Hastings Center Report* 4 (Dec. 1974): 4—7.

4.4.1.2 Is Autonomy That Important?

Transhumanists often assume that persons have unlimited personal freedom and autonomy as well as being primarily consumers who are looking for "easy" solutions to life's problems.[134] Indeed, Americans are particularly impatient and easily frustrated by failure and thus look to some technological fix for their present ailment.[135] Autonomy is quite probably the most important value for transhumanists. The perception of self-mastery and freedom is the clarion call and touchstone for most enhancement proponents. American society in particular pushes for individual autonomy and often resists being defined as by being in relation with others. As Christina Bieber Lake notes, that for transhumanists what "matters most about our destiny is simply the fact that we get to choose it."[136] Lake goes on to say that any ethic based on this personal freedom approach instead of responsibility to the other is "doomed to fail."[137] The reason for this is that persons are the types of beings that live within and depend upon a community. Persons are not fully autonomous beings – we need others and others need us.[138] Indeed, one of the fears of basing an ethical system on personal autonomy and freedom is that the "good" is often simply associated with the accumulation of power.[139] If, however, an ethical system is based more in a virtue format, then reference to a narrative is cultivated

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[134] Lake, *Prophets of the Posthuman*, 12.

[135] Ibid., 13.

[136] Ibid., xiii, 15.

[137] Ibid., 4.

[138] Ibid.

[139] Ibid., 6.

in a social context. And if this is the case, then community is needed to establish an

appropriate ethic. Again, transhumanism tends to prioritize individual freedom over (and

sometimes in opposition to) communal concerns.[140] We fear that our autonomy / destiny

is determined by totalitarian rulers.[141] Hence, transhumanists prioritize human autonomy

as a way to rebel against the potential totalitarian rules (i.e., nature, society, limitations).

The problem with this approach as Lake argues is that it makes love of others almost

impossible. She says, "when one's ultimate value is freedom to remake the self through

technology, this value shapes a view of the other that makes love for *particular persons*

today almost impossible."[142] What room is there for others when the priority is one's

self?

Fukuyama critiques the primacy of autonomy as found in much of deontological

thinking (which is adopted by many transhumanists) as "elevating individual moral

autonomy to the highest good."[143] The problem, as he sees it, is that the right to "choose"

is not an absolute good in itself. Indeed, if one is mentally impaired then they will *not* be

able to choose what is good at all – or at least in only a very limited sense. This notion of

dignity is applicable only if the person has a properly functioning capacity for autonomy.

The problem is that if someone lacks that current capacity (i.e., children, comatose,

mentally disabled, etc.) then these individuals cannot be considered properly a "person" –

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[140] Ibid., 7.

[141] Ibid., 110.

[142] Ibid., 8 (emphasis in original).

[143] Fukuyama, *Our Posthuman Future*, 123.

for they lack full autonomy.144 Transhumanists often see autonomy as the highest moral

value, Fukuyama disagrees.145 The need for an inherently meaningful life is of even

higher priority.146

A love first ethic could possibly provide that the meaning that Fukuyama insists is

necessary. This is because a love first ethic prevents the reduction of ethics to personal

freedom and autonomy. It assumes that other persons are worthy of respect and dignity. It

assumes that there is a "good" (i.e., a *telos*) for others. This view is often opposed to

techno-scientism which assumes the "good life" can be found in technological

advancement. As wonderful as modern science is, it cannot answer what is the "good

life." At best technology and the science that creates it can only offer a "thin" version of

the "good life."147

4.4.1.3 Can "Personhood" Adequately Account for Moral Status?

The problem this criticism highlights is that thinking in terms of science and

technology may prevent us from accepting people as humans – or at least as morally

worthy beings.148 The fear here is that significantly enhanced beings will be so

cognitively above current human capacities that they would not but be able to think that

they have a higher moral status.149 This can be seen in Buchanan's insistence that

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144 Mitchell, et al., *Biotechnology and the Human Good*, 65—66.

145 Fukuyama, *Our Posthuman Future*, 123—125.

146 Ibid., 123.

147 Lake, *Prophets of the Posthuman*, 10—11.

148 Ibid., 54.

149 Agar, *Truly Human Enhancement*, 168 (emphasis in original).

"personhood" is a threshold concept. The problem with "thresholds" is that there is a difference between "strong" thresholds and "weak" thresholds. A "strong" threshold resists any improvement to the status of the being. That is, no improvements or enhancements affect that being's status. A "weak" threshold notes that beyond a certain point of some enhancements *could* actually affect the status of a being. While Buchanan argues for a "strong" threshold in order to maintain moral equivalency between enhanced and unenhanced beings, Nicholas Agar justifiably doubts that a "strong" threshold is possible to maintain. Indeed, Agar takes it that a "weak" threshold is more likely to be held by an enhanced citizenry than a "strong" threshold view.[150] Even though a "strong" threshold view may seem to be more intuitive to our unenhanced moral perspective, there is no reason to think that an enhanced individual would not then be able to morally justify a "weak" threshold view. Indeed, Agar argues that the only relevant moral status being "personhood" is improbable. Especially in light of how we already treat other beings – both human and non-human.[151] We treat animals decidedly differently than how we treat other humans. Agar phrases the problem well, the "question of whether we should recognize the existence of higher moral statuses becomes the question of whether beings who are sufficiently cognitively superior to us and lack our imaginative limits would recognize the existence of such statuses."[152] Agar is not optimistic that enhanced beings would consider mere humans to be their moral equals.

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[150] Ibid., 162—163.

[151] Ibid., 164—165.

[152] Ibid., 177.

Buchanan wants to maintain a strong threshold concept in which there is "no degree" of difference among "persons" for their moral status. The difficulty here is in insuring that posthumans (and post-persons) maintain that same viewpoint. It seems far more likely that enhanced individuals will opt for a weak threshold concept of personhood which allows for "some degree" of difference between "persons" based on their capacities. As such, cognitively unenhanced beings (such as ourselves) will not be able to predict how a cognitively enhanced being will be able to morally justify a differentiation in moral status. However, that such a differentiation is possible in light of the fact that *we already* make such justifications among ourselves. We *already* judge some humans (i.e., "persons") as more valuable than others. Given significant enhancement, the value judgments of "who" is more valuable are not only possible, but inevitable. And there will be greater "moral clarity" for the beings making the moral judgment. Unenhanced beings will simply be at the moral mercy of the enhanced beings. As Agar puts it, "our observations of moral statuses make it likely that beings lacking our cognitive limits will recognize moral statuses superior to personhood."[153]

Agar lists two reasons why enhanced humans may not make mere humans a moral priority. First, our current treatment of animals (such as the great apes) shows that we make a moral distinction between ourselves and creatures we deem as less capable as ourselves. But the relationship we enjoy with the great apes is one that is likely to be mirrored with those who are enhanced. If we can make a moral distinction between

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[153] Ibid., 179—180.

ourselves and the great apes, then there is no reason to think that enhanced beings will not be able to make the same sort of distinction between them and us.[154]

Second, Agar notes that while enhanced beings may be able to more rigorously adhere to a moral code, there is no guarantee that the moral values that enhanced beings adopt will be necessarily good for mere humans. As Agar puts it, we may have a good idea about what cognitive enhancements will do to us but "we have a much less secure grasp on the idea of *moral* enhancement than we do on *cognitive* enhancement. . . . posthumans may cause suffering to humans not because they lack empathy, but because, like parents who present two-year-olds for painful vaccinations and cancer researchers experimenting on monkeys, they view that suffering as morally justified."[155] Even though enhanced beings will emerge from us, and perhaps begin with our values, there is no guarantee that they will maintain those values. Especially, if they judge that changing them is morally or intellectually necessary.[156] A society with both posthumans and mere humans will be decidedly bad for mere humans.[157] Establishing "personhood" will not mitigate this moral reality.

4.4.1.4 Other Issues Related to "Personhood"

Christina Bieber Lake notes that persons are best defined not by qualities and capabilities, but by relations.[158] If this is correct then anyone who prioritizes a capacities

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[154] Ibid., 158.

[155] Ibid., 159—160.

[156] Ibid., 160.

[157] Ibid., 173.

[158] Lake, *Prophets of the Posthuman*, 22.

approach to understanding what it means to be a person would by necessity be looking at the wrong criteria for personhood. Yet, Buchanan has taken this precise approach to determine what it means to be a "person." Harold Baillie makes a similar observation. Following Aristotle, he takes it that "personhood" is the *entelechy* of the body – "personhood" is what makes the body a *human* body. As far as Baillie is concerned, genetic enhancements at least threaten that *entelechy* as it introduces a notion of inequality across the human spectrum that is currently absent (i.e., is it *fair* that some people are genetically altered to be smarter, faster, stronger, healthier, etc.?).[159] This is important because the sorts of inequalities that some enhancement technologies introduce reconfigure the foundation for how we determine human rights. That is, certain enhancement technologies change "human nature" and by extension any rights based on it.[160]

While I am sympathetic with Buchanan's argument that "persons rights" is a threshold concept and once met cannot be violated, I do think that in the enhancement debate there is a subtlety that is missed in his explanation. Namely, is the correct concern more appropriately that there could be "competing" notions of goods between the enhanced and the unenhanced? That is, are there posthuman rights that *conflict* with mere human rights? If the answer is "yes" then despite Buchanan's optimism that there is nothing for the unenhanced to worry about morally, their concerns would instead be fully justified.

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[159] Baillie, "Aristotle and Genetic Engineering," 227.

[160] Fukuyama, *Our Posthuman Future*, 172.

4.4.2 Problems with "Human Nature Only"

Basic rights in "personhood" may have its problems, but so does basing rights in "human nature." The notion is far from uncontroversial, and below we will examine a few reasons why "human nature" may not be a sufficient basis for establishing human rights. There are three main arguments listed. The first holds that the notion of "human nature" is simply an arbitrary construct – it is ultimately a vacuous notion. What we call "human nature" has no *real* content to it. Secondly, it is argued that a sufficient moral system can be established apart from any notion of "human nature." Finally, it will be argued that "human nature" cannot actually establish a *telos* – hence, the major reason for accepting the idea of "human nature" in the first place is ill-founded.

4.4.2.1 "Human Nature" is Arbitrary

Just because something is "natural" it does not follow that it is necessarily the best.[161] Nor does appealing to human nature resolve the difficulty between distinguishing therapy from enhancement (see chapter 6).[162] As even transhumanist critic Brent Waters observes, lines restricting certain types of enhancements from therapies are arbitrary seen in light of evolutionary reality. How can one claim that natural selection is a "better" alternative to direct technological engagement? If we must change, why not shape ourselves into the types of beings we want to be?[163] A significant problem for those who support the notion of "human nature" as some sort of essential quality, tend to beg-the-

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[161] Peterson, *Changing Human Nature*, 31.

[162] Lake, *Prophets of the Posthuman*, 45.

[163] Waters, *This Mortal Flesh*, 124.

question in favor of that essentialism.164 Essentialism, of course, is often thought to be incompatible with evolutionary theory – and by extension, an incorrect paradigm by which to understand human beings.

Further, Buchanan notes that even if there is such a thing as "human nature" this would not prevent the possibility of pursuing enhancements. For example, even if you think God has specially created humans with a certain essence, this would *seem* to indicate that changing that essence would be to work against God. But this does not necessarily follow. Enhancement may still be permissible barring some divine command to *not* alter some essential "human nature." Further, the existence of "human nature" would not mean that some constraint were placed on us to *not* alter "human nature." For where would that constraint derive? If God, then God would need to inform us not to violate that nature. In light of God *not* giving that command, we may be free to alter our nature. Finally, altering some ambiguous "human nature" would not necessarily spell doom for our idea of what it means to live the "good life." Indeed, one of the primary motivations for pursuing enhancements is to achieve and maintain the "good life."165 So, not only is "human nature" arbitrary for establishing human rights, but it is arbitrarily used to limit the possibility of enhancements. For Buchanan and transhumanist proponents, it is best to jettison the notion of "human nature" altogether.

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164 Buchanan, *Beyond Humanity?*, 134.

165 Ibid., 146.

4.4.2.2 "Human Nature" is Not Necessary for Morality

Buchanan lists a number of problems for those that appeal to "human nature."

First, Buchanan notes that utilizing "human nature" as a precondition for moral agency is

problematic. Practical rationality is generally thought to be essential to "human nature"

and it is often the basis for moral deliberation. But practical rationality does not need to

be limited to simply human beings, nor are enhancement proponents advocating the

removal of practical rationality. Indeed, "human nature" is not needed in order to have

practical reason or the ethical system(s) that proceed from it.[166]

Even if critics of enhancement appeal to some sort of intricate "connectedness" of

human beings (at the biological level) in order to warn against enhancement technologies

upsetting the balance, this is no reason not to pursue enhancements. For some risks may

be wholly worthwhile if we believe the benefits are sufficient. Further, many critics

simply make the assertion without providing *any* biological basis for the position that we

should not enhance ourselves.[167] Further, if the issue is indeed the "extreme

connectedness" of our biological parts, then there is no need to bring "human nature" into

the discussion. This connectedness and biological complexity can be discussed apart from

any sort of essentialism.[168] In addition to having no empirical support for this

connectedness, *even if* it were true, we humans have already altered our condition

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[166] Ibid., 121—122.

[167] Ibid., 135.

[168] Ibid., 136. Indeed, Buchanan points out that if the standard evolutionary model of human origins is true, then any sort of extreme connectedness is necessarily false, as evolution simply does not allow for it. For an "extremely connected" system – say a clock – requires precisely working components to properly operate. A standard human, however, can function sufficiently well even in a "broken" state – at least to a greater degree than many mechanical items. If a clock breaks a gear, it cannot keep time. If a person breaks an arm, they can remain a person. Ibid., 160.

through mundane enhancements – i.e., agriculture, literature, domestication of animals, etc.[169] While the concern for not wanting to disrupt the biological "balance" of human beings is laudable, it is in fact quite impossible to avoid. The real issue is to what *degree* will human beings change, not *whether* human beings will change.

Further, Buchanan remarks that "human nature" is not feasible as a constraint for moral reasoning. According to Buchanan, neuro-ethics reveals that our capacity for altruism may be "limited by our evolved biology." But rationally and ethically, if *ought* implies *can*, then we should admit that our biology may limit our ability to *do*. As such, enhancement may relax our biological moral restraints and allow for us to be *more* moral. To actually follow through with *oughts*.[170]

4.4.2.3 "Human Nature" Cannot Establish a Proper Telos

Buchanan likewise contests the Aristotelian notion that "goods" are determined by the "nature" of a thing – in this case "human nature." Aristotle argued that if some characteristic was indicative of a being (i.e., reason), then that being could have a good life only if that characteristic was properly exercised (i.e., chance to utilize reason).[171] Now for Buchanan, this understanding is insufficient for addressing the ethics of enhancement. For, it "neither forbids nor condones enhancements that would alter our nature."[172] All the Aristotelian position is saying is that the good is relative to a thing's nature, but if the nature changes, then so too do its goods. This cannot be an argument

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[169] Ibid., 182.

[170] Ibid., 122—123.

[171] Ibid., 123—124.

[172] Ibid., 123.

against enhancement since the loss of "goods" would only apply if the "nature" of the being did not also change and gain new "goods."[173] For Buchanan (per the transhumanist agenda), if per chance we were able to develop a technology that was "good," then we have the prerogative to pursue said technology even if it necessitates our "nature" changes (pending, of course, that the projected benefits outweigh the projected risks). To use an example from Buchanan, perhaps our limited altruism prevents us from opening up some social realities for people because we are currently too afraid / stubborn to engage them (e.g., helping to feed the homeless). Enhancement may allow us to express altruism better.[174]

In a related vein, Buchanan challenges the notion that "human nature" acts as a source of substantive moral rules. He spends considerable space explaining this type of "normative essentialism" confuses judgments of what's best for humans with judgments about what is compatible with humanity's Moral Status and dignity.[175] "Normative essentialism" thus disguises normative claims as descriptive claims. For example, if we are able to genetically enhance people to the point they are no longer "human," then we have crossed a threshold that is objectively bad for humans – humans are engineered out of existence. But, depending on the genetic enhancement, there may not be anything that decreases the dignity or moral status of the enhanced beings. Put differently, "normative

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[173] It could be argued that Buchanan misses the point of the Aristotelian criticism. For example, perhaps the issue is not that "goods" should change if a being's "nature" changes, but rather that some "goods" are so inherently valuable that pursuing a different nature to gain other "goods" is wrong. Likewise, it could be argued that a being should not bring about a situation that eliminates its ability to experience certain "goods" – *even if* those goods are objectively better.

[174] Buchanan, *Beyond Humanity?*, 124. It could be argued, however, that limited altruism may actually be a benefit as it may act as a type of defense against one being taken advantaged. While it is good to be altruistic, it is also good to utilize wisdom and discernment in a situation so as to not enable the bad behavior of someone, nor put oneself in a compromised situation.

[175] Ibid., 125—131.

essentialism" is insufficient to account for moral consideration of enhancement technology. Buchanan then notes a dilemma for the "normative essentialist": *if* "human nature" is rich enough to ground moral rules, then appeal to "human nature" will be too controversial to be useful (since, moral rules are drastically different for many different groups); but, *if* "human nature" so thin that different moral rules can be applied to it, then "human nature" cannot be the actual grounding of moral rules.[176] That is, moral values are already drastically divergent. Hence, if they derive from some type of "human nature" then there should be significantly more commonality in moral rules than there are. But if moral values are already derived apart from "human nature," then "human nature" is not needed to ground moral values.

4.5 Conclusion: *What* Something Is Matters

Buchanan holds that anti-enhancement critics base their objections to enhancement technology on some kind of fear, and they do so without any empirical evidence. For example, he says, "Proceeding on the assumption that one should avoid activities that might produce harmful results is a recipe for paralysis, not prudence."[177] In response, it depends. What is the activity? And what are some possible harmful results? Indeed, if the possible harmful results are significant, then avoiding the activity is the most prudent course of action. Take the following scenario. A doctor is experimenting a new drug on patients who have an annoying (but not debilitating) condition – say, they endure severe migraines. The drug has a success rate of ninety-five percent, but the failure rate of five percent results in near immediate death. Suppose, a thirty-year old

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[176] Ibid., 132.

[177] Ibid., 130.

mother of two visits the doctor and she is a candidate for the experimental drug. She has a ninety-five percent chance of the drug curing her and a five percent chance of the drug killing her. What should she do? Would anyone blame her for *not* wanting to use the drug? Someone else in the same situation may do so, but it would hardly be imprudent for someone to decline participating in the activity. Now, of course, Buchanan agrees that risks have to weighed against the rewards of any enhancement. The issue at hand, though, is that much of the enhancement debate surrounds philosophical speculation and not just analysis of strictly empirical data. Indeed, moral imagination is itself not constrained to strictly empirical data, nor should it be. The scientific method is a powerful tool, but its scope is limited to empirical data. On the one hand, Buchanan seems unwilling to admit, the enhancement debate is more than simple reflection on the empirical. On the other hand, he is correct that a serious exploration into the scientific basis for our moral reasons and positions must be undertaken. Even though moral exploration is broader than the scientific data, it cannot be at the expense of empirical observation.

So, it comes to this. *What* something *is* matters for that thing's *telos*. That *telos* is revealed in the thing's desires, wants, behaviors, and actions – and it cannot be understood divorced from these notions. Likewise, the context of the thing helps to interpret its behaviors, desires, and so forth. There are few truly autonomous beings. As such, treating humans as both wholly autonomous and primarily as merely rational entities does a disservice to understanding who and what humans are. This is not to ignore our evolutionary origins, nor is it to deny the scientific data of human beings. Rather, it is an attempt to place humans in their proper context so that we can have a holistic account of what is the true human good. Given the arguments above, I am

inclined to take it that "human nature" is an important concept necessary for determining human rights and moral values. This, however, must be in a particular context and thus some form of virtue theory is perhaps the best approach to achieving that end. Likewise, a proper account of what it means to be human must be established (see chapter 3). Since that exploration was covered earlier, I am inclined to think that the "personhood" only approach is a valuable tool for expanding our moral knowledge for beings other than human. Or at least for those beings that share significant capacities (to greater or lesser degrees) with humans. Yet, "personhood" is insufficient to establish *why* humans are special creatures since often it looks at only a singular issue (e.g., rationality). As such, "human nature" provides a base understanding of certain rights that cannot be violated, but it cannot fully establish a moral system that accounts for all other possible beings – including posthumans. "Personhood," however, can help develop a moral system that goes beyond just human beings, but it should not violate the basic thresholds established by "human nature." In short, neither "human nature" nor "personhood" alone fully establish a workable moral system for discussing enhancement technology, even though both provide valuable input for moving us in that direction.

Chapter 5

Moral Proposal: An Agency of Relational Responsibility

First it was nature that was 'neutralized' with respect to value, then man himself. Now we shiver in the nakedness of a nihilism in which near-omnipotence is paired with near-emptiness, greatest capacity with knowing least for what ends to use it.
— Hans Jonas, *The Imperative of Responsibility*, 23

Our sense of responsibility is nothing less than testimony to the fact that we live, move, and have our being before God. Christian ethics renders this fact explicit, and thereby provides a way to understand the full meaning and scope of the responsible life.
— William Schweiker, *Responsibility and Christian Ethics*, 216

5.1 Introduction

Braden Allenby and Daniel Sarewitz remark that the enhancement debate has

devolved into a tit-for-tat battle in which one side argues that individual choice and

freedom are paramount, while the other side argues that human nature and embodiment

of the individual preclude certain enhancement technologies. Thus, the enhancement

debate has centered almost exclusively on "individual" rights, for even those opposed to

certain enhancements still want to uphold individual rights.[1] This is an incomplete view

of human moral action to say the least. However, it is easy to see why the debate has

taken on this character. For modern liberal society places a high value on the "libertarian"

freedoms we all enjoy – individual autonomy and various rights enjoyed by a society's

members. Allenby and Sarewitz further note that there is a "reductionist rigor" in

discussing individual rights that is just not found in other discussions. But this is

understandable when we look at the alternatives: arguing for an individual right is

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[1] Braden Allenby and Daniel Sarewitz, *The Techno-Human Condition* (Cambridge, MA: The MIT Press, 2011), 87.

concrete – we can make sense of it. However, arguing for "dignity" or "authenticity" is ambiguous – it is much more malleable and prone to interpretation.[2] It is this stress on individual rights (i.e., autonomy) that enhancement proponents take to be the key ingredient that previous generations of enhancement proponents missed. They argue that the individual should have the right to accept or refuse any procedures. This individual-rights approach which prioritizes freedom of the will and self-expression is key because *it is we that have given permission* for the procedure.[3]

Another attending concern from this ultra-autonomous approach is that we are drastically altering our understanding of what it means to *be* human. What we used to think of as "human nature" is now commonly thought to be a social construct and thus just as malleable as our imaginations allow it to be.[4] Without being able to appeal to a common nature, there cannot be a common morality – as such, ideas like individual autonomy and individual rights rules the day.

The failure to bridge this moral divide is problematic. A well-functioning society is dependent upon a well-ordered morality to allow full integration of life for its citizens. However, as Tristram Englehardt notes a fully secular moral vision will resist integration with certain elements of non-secular morality.[5] Given the way modern society has

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[2] Ibid., 21—22.

[3] Ibid., 22.

[4] Langdon Winner, "Resistance is Futile: The Posthuman Condition and Its Advocates," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 406.

[5] These differences can be in regard to the notion of "good" to how morality is justified to how the content of morality is justified. A theistic view of morality can ground moral features in the divine nature, but no such option is available to the secularist. Rather, moral reality must be grounded in some rational or practical basis – often in some form of deontology or utilitarianism. "The elements or dimensions of morality cannot be fully integrated in a secular moral vision. One cannot bring into harmony (1) the right and the good, (2) the claims of a universal moral perspective and particular moral commitments, (3) the

progressed it would seem that the secular theorists have succeeded in grounding morality in rationality. Secular rationality appears triumphant, but it has devolved into many "rationalities." There is no common element, and it is not clear whether secular morality will be able to actually give a moral or metaphysical orientation.[6] This waywardness has resulted in a type of modern nihilism in relation to bioethics (upon which the enhancement debate is situated) and moral reflection.[7]

This chapter seeks to provide an answer to this stalemate. It seeks to find the various elements that could contribute to a language of moral reflection appropriate to the enhancement debate. To examine this moral landscape I will explore a few elements I think necessary for proper moral reflection. The end result will be an Agency of Relational Responsibility (ARR). The first section will look at the various ways in which human persons should be considered relational beings – we cannot be considered as wholly autonomous (even granting the importance of autonomy as a moral principle). Second, we will explore at what is involved in the notion of responsibility. The language of responsibility is particularly useful for our purposes as it sets proper action within a context of relationship with others – it establishes a moral rubric. The final section will look at what it means to be a moral agent, with a particular attention being paid to a Thomistic understanding of moral action.

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justification of morality and the motivation to be moral, or even (4) justify the content of morality. Secular morality and with it secular bioethics sunder into only partially reintegratable deontological and teleological moralities. Unlike a religious moral vision grounded in the revelation of a personal, loving, omniscient, and omnipotent God, a secular morality must be grounded in some generally accessible feature of immanent reality such as the character of human reason, sympathies, inclinations, or nature." H. Tristram Englehardt, Jr. *The Foundations of Christian Bioethics* (Exton, PA: Swets & Zeitlinger, 2000), 75.

[6] Ibid., 5.

[7] William Schweiker, *Responsibility and Christian Ethics* (New York: Cambridge University Press, 1995), 192.

5.2 Human Persons as Relational Beings and in a Living Context

Humans are historically and socially situated beings. We live in a particular time and place, and within a particular culture. The result is that we are deeply affected by our social conditions and we reflect the attitudes, beliefs, moods, and *zeitgeist* of that time. Often, our most deeply held beliefs are fully attributable to our temporal and particular location. However, just because we are largely the product of our historical position, this does not mean that all persons in that environment believe the same thing or act the same way, nor does it prohibit one from adopting new values and attitudes. What this does mean is that we start our journey with a particular inclination. Another consequence of this reality is that the values to which many people hold may be incommensurable with the value systems to which others adhere. This is especially pronounced in the enhancement debate, since many of the issues are really about competing value judgments. Allenby and Sarewitz state the issue well:

> The incommensurability of human values and value systems, and the real-world complexity that makes it so difficult to know how actions in the present will connect to consequences in the future, are direct and fatal challenges to the belief that technological enhancement of human cognitive capacities will chart some new and improved path toward better humanness and humanity. Humans do not live lives unconnected to other humans, and the outcomes of human enhancement will depend on the world into which enhanced traits are inserted.[8]

What they are saying, then, is that humans hold to incommensurate values developed by a complex network of relationships. Likewise, even if we value the individual person, we must acknowledge that we are not wholly autonomous – we live in a connected society, both locally and globally.

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[8] Allenby and Sarewitz, *The Techno-Human Condition*, 94.

Another way of thinking about this is that human persons are a series of relationships. Not only are we related at the local and national level, but we are ultimately connected at the global and cosmic level on the large scale, and we are (in a real sense) connected to our very selves at the most minute scale. We are relational beings, and it is because we are relational that some critics of transhumanism fear it so much. They see enhancement technologies as a way of mitigating our relationships – not improving them. Celia Dean-Drummond makes this point while criticizing Nick Bostrom. She remarks that transhuman philosophy, as promoted by Bostrom, divorces the mind from the body (as it is a physicalistic and materialistic viewpoint) separating us from ourselves, but also it divorces persons from society, separating us from others.[9] For Dean-Drummond, enhancement technologies break down relationships, it does not foster them.

Because we are relational beings, we need to examine the various relationships in which we are currently involved. By studying how human persons view and relate to the world, we can have a better grasp of how we should proceed with an appropriate moral language. To that end, this section will build on the understanding of human beings as established in chapter 3 by developing a working moral account of human persons. Further, we will explore the cosmic, global, and local relationships that influence human values. Finally, we will say something about how one's (non) view of the divine shapes their value system.

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[9] Celia Dean-Drummond, "Taking Leave of the Animal? The Theological and Ethical Implications of Transhuman Projects," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 123.

5.2.1 A Working Understanding of Human Persons

Chapter 3 has already put forward a proposal for an ontological understanding of human beings as ensouled persons. This section will now explore the moral element that comprises human persons. William Schweiker takes it as a basic assumption that human persons are agents related to the world in a quest for wholeness and are interrelated in two ways: first, to the world as a whole reality, and secondly as an individual trying to make sense of the chaos in our individual lives. We are essentially fragmented beings seeking wholeness.10 Likewise, for Schweiker the term "person" means a being that respects multidimensional goods which permeate one's life. Persons are "complex creatures struggling for wholeness in relation to others" since our social relationships bear directly to our own experience of what is "good."11 As social beings, even the term "person" has a social designation since we are moral beings – we are "role-bearing individuals." That is, we incur obligations that are owed to others.12

In the enhancement debate, the term "person" has taken on primarily an autonomous and rationalistic role. Thus, the tendency is to remove human persons from their social context. The issue is not that technology is not useful, nor is it that technology cannot serve real goods in our lives, but the fear is that technology will break down the fundamental relationships that make us human – individually and socially. Indeed, one fear is that technology may lead us to see others as commodities and not as persons in themselves. Recalling Emmanuel Levinas, Christina Bieber Lake notes that technology

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10 Schweiker, *Responsibility and Christian Ethics* (New York: Cambridge University Press, 1995), 47.

11 Ibid., 160.

12 Ibid., 163.

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can "hide" the "face" of the other – and in essence, diminishing our moral obligation to others.13 This need for the "face" of the other underlies Schweiker's insistence that the human person is "at its simplest level" a "Living body." Human persons can be "seen, touched, heard, and encountered."14 That is, we are fully relational beings. As such, our responsibility to others "arises from embodied existence" as we respond to the needs of others in which we engage.15 As Schweiker summarizes it, "It is thanks to our bodies that we are situated in the world as relational, vulnerable beings."16 The role of embodied existence cannot be overstated.

Thus, in a moral sense the term "person" means an "embodied human being" who is "responsible" for their "incarnate life."17 Associated with the ideas of embodiment and being responsible in a social setting are the notions that this involves some concept of personal identity as well as a robust understanding of love. First, identity is essential for responsible living in society, since we must view "ourselves" as being in relation with "others." This duality of sorts establishes the underpinnings for obligations due to social members. *I* "owe" it others to behave in a certain way, and they "owe" it to *me* to do the same. This notion of personal identity makes the exercise of genuine freedom possible.18 Second, the notion of "love" can serve as a basic category of action towards others.

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13 Lake, *Prophets of the Posthuman*, 70.

14 Schweiker, *Responsibility and Christian Ethics*, 160.

15 Ibid., 161.

16 Ibid., 160.

17 Ibid., 162. The use of the phrase "incarnate" intentionally calls forth Jesus' incarnation – God become flesh (John 1:14).

18 Ibid., 183.

Classically, love was understood as "willing the good of the other." The "good," of course, will be largely debated along one's value system. The "other," however, is the embodied individual before you. And the "other" must be loved as they are, not as you would have them to be.[19] For if you must change them to find them "lovable," then you are not willing their good, but your own comfort.

5.2.2 Human Persons in Cosmic, Global, and Local Context

Individual human persons live at particular times and places. Indeed, as Schweiker says, "Persons exist as selves in a moral space of relations through time."[20] Persons are relational and relative to their cosmic, global, and local situation. Hence, any moral conditions laid upon human persons must entail that their responsibility for their actions be consistent with the time and place of their action.[21] Because humans are historical and social creatures, it follows that human actions cannot be separated from the context in which they occur. And the context for human action at the broadest consideration is the cosmic level. That is, what is the human person's place in the universe? The universe, like the human, should be viewed holistically.[22] Indeed, it makes

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[19] Lake, *Prophets of the Posthuman*, 53.

[20] Schweiker, *Responsibility and Christian Ethics*, 167.

[21] For example, a common mill worker in the industrial revolution is not morally responsible for either the actions of a caveman before him, or the computer programmer after him. The mill worker is ordinarily thought to be responsible for his actions alone. Ibid.,167.

[22] As Charles Pinches puts it, "This is not a world separate from the world of human bodies and, indeed, all the physical stuff of God's creation, but rather one inextricably intertwined with it since, as the pope [John Paul II] reiterates in the encyclical [*Veritatis Splendor*], human beings are created by God as a unity of body and soul. This unity can never be broken if any full sense is to be made of human action." Charles R. Pinches, *Theology and Action: After Theory in Christian Ethics* (Grand Rapids, MI: William B. Eerdmans Pub. Co., 2002), 73.

all the difference whether we see human persons as mere specks of cosmic dust or as precious beings bearing God's image.23

Closer to home, however, we are more readily related to the globe. Over the past couple of centuries, humanity has truly become a global creature.24 Whether one is buying goods in another country, trading information, or engaging in tourism, globalization is a reality and our neighbors are no longer those in our own provinces, but in countries across the oceans. All of humanity is now our neighbor, and we bear a responsibility to treat each of them with dignity – both through direct action, and indirect choices.25

Schweiker notes that for most of human history it was difficult (if not impossible) to "see that persons in one part of the world might be responsible for conditions of life elsewhere on the planet."26 Indeed, given the relatively minor impact of a silver smith in

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23 I am reminded of the famed atheist Bertrand Russell's statement that a philosophy that is not founded on the hopelessness of cosmic meaninglessness could not possibly stand. He says, "That Man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, are but the outcome of accidental collocations of atoms; that all the labours [*sic*] of the ages, all the devotion, all the inspiration, all the noonday brightness of human genius, are destined to extinction in the vast death of the solar system, and that the whole temple of Man's achievement must inevitably be buried beneath the debris of a universe in ruins – all these things, are so nearly certain, that no philosophy which rejects them can hope to stand. Only within the scaffolding of these truths, only on the firm foundation of unyielding despair, can the soul's habitation henceforth be safely built." Bertrand Russell, *Selected Papers of Bertrand Russell* (New York: Random House, 1927), 3, quoted in William Lane Craig, *God Are You There? Five Reasons God Exists and Three Reasons It Makes a Difference* (Norcross, GA: RZIM, 1999), 5.

24 Given modern technology it is possible to be at any other point on Earth within twenty-four hours. Whereas in the distant past some trips were impossible, and only much later on, the trip would take years or months. Today, these once "impossible" journeys can be accomplished in mere hours. Not only are we able to move about the Earth much quicker, but we can impact the lives of others around the globe much faster.

25 For example, I should be careful with how much I pollute the environment since it affects more than just myself. The world is now a global culture, and we must adapt to this new global reality. For an example of how the global impacts the local and vice versa, see Robert J. Schreiter, *The New Catholicity: Theology Between the Global and the Local* (Maryknoll, NY: Orbis Books, 2004).

26 Schweiker, *Responsibility and Christian Ethics*, 190-191.

England it is difficult to see how his actions could affect those of a tribesman in Papua New Guinea. Nevertheless, small scale changes can accumulate over time and take a global affect – even if minor. A social "butterfly-effect" if you will. Likewise, given this global impact Langdon Winner reminds us that given the types of creatures we are, our history and future prospects are intricately linked to this "blue planet that revolves around the Sun."[27] We would do well to take care of what we have, for both "our happiness and our good depend on the fulfillment of our social nature, and virtue requires society both for its formation and its expression."[28] The context of our actions – their "home" as it were – is this planet, thus making this a communal world with a communal story.[29] The story of Planet Earth is *our* story, and *our* story is a tale of this pale blue planet.

While we are both cosmic and global beings our immediate sphere of influence and impact is our immediate culture. Indeed, in contrast to the cosmic and global, the *local community* is used to identify a body of men and women bound together by common moral traditions and / or practices around a shared vision of the good life, which allows them to collaborate as moral friends.[30] As Pinches remarks, morality is intricately bound to a community. A communal language shapes and influences how one understands their role in society, and determines to a large degree how they act.[31]

[27] Winner, "Resistance is Futile," 405—406.

[28] Lisa Sowle Cahill, "Nature, Sin, and Society," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 339.

[29] Pinches puts it like this, "the context of my human action, its home, is not set solely by my intentions or even my individual story, but by the human world I inhabit, which is necessarily a communal world, with a communal history." Pinches, *Theology and Action*, 165.

[30] Engelhardt, Jr. *The Foundations of Bioethics*, 7.

[31] Pinches, *Theology and Action*, 159.

Schweiker concurs and states that notions of moral responsibility only make sense within a community expressing a common outlook on the world.[32] Because humans are relational beings at the cosmic, global, and local level, any changes to the human person should be made with these various relations in mind. Our individual acts in a quest for "self-improvement" may adversely affect many others and greater society.

5.2.3 Human Persons in Relation to the Divine

There is one last relational aspect to human persons that must be examined – the relationship human persons have to the divine reality. The trend in Western society and reflected in contemporary ethics is a reduction in the influence of the Judeo-Christian concept of theism – both its effect on culture and as a "source of value."[33] Yet, a Christian understanding of human persons cannot operate from any other foundation than to say that "we are created from dust of the ground — finite beings who are limited by biological necessities and historical location. We are also free spirits, moved by the life-giving Spirit of God, created ultimately for communion with God — and therefore soaring beyond any limited understanding of our person in terms of presently 'given' conditions of life."[34] We frail beings *are* creatures made for communion with God.

Even though the trend in Western society is to reject classical notions of God, the same trends show an increased awareness of one's own "spirituality." People are rejecting older religious forms and adopting newer spiritual ones. However, even here Schweiker notes that people are not just becoming "theists in general." For these persons

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[32] Schweiker, *Responsibility and Christian Ethics*, 213.

[33] Ibid., 192.

[34] Meilaender, *Bioethics*, 4.

are shaped by a given "tradition of thought and life." Indeed, he says that all discussion about God and moral reality is situated in "the ultimate context of human existence" and thus these discussions are molded by those human traditions.[35] As such, even in rejecting traditional religious notions of God, modern society is shaped by and reflects those traditional notions. Stated differently, modern society has not fully jettisoned the bonds of a Judeo-Christian notion of God.

But does modern society even need a conception of God in order to develop some ethical basis? Indeed, Schweiker notes that in terms of developing an ethical system, there is "nothing distinctive about Christian ethics."[36] However, he also notes that Christian ethics is theistic and affects ethics at the worldview level. That is, Christian theism offers the perspective by which one can judge what is or is not the "good life." Indeed, for the Christian it is one's relation to God that establishes the "rules and norms of conduct."[37] Stated another way, what we call the "ethical good" is "nothing else than to constitute one's life and community in God."[38] One's understanding of God, does indeed, play a role in how one shapes their ethics.

Finally, what it means to be an individual is largely determined by how we see ourselves related (or not) to God. Meileander remarks that what makes us "true individuals" is the fact that it is God that calls us individually. Thus, our individuality is not an achievement attributable to our own prowess, but a result of being in "*community*

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[35] Schweiker, *Responsibility and Christian Ethics*, 214-215.

[36] Ibid., 214.

[37] Ibid.

[38] Ibid., 211.

with God."[39] It is because of this fundamental need for a relationship and communion with God that many Christians have avoided "any attempt to overcome our nature" as this would be considered "playing God."[40]

5.3 The Language of an Ethics of Responsibility

Moral systems presuppose some level of obligation one person has for another. I am obligated by moral reality to not harm you unnecessarily, and you likewise have the same obligation not to harm me. This notion of obligation is nicely encapsulated by the idea of "responsibility." In the mid twentieth-century the idea of responsibility ethics gained prominence within certain circles. The basic idea for this approach is summarized well by Schweiker, to "be a moral agent is to be responsible *for* oneself, and perhaps others, in and through responding *to* others and being accountable *for* bringing something into being or acting on behalf of others through the exercise of power."[41] Elsewhere he notes that an ethics of responsibility is concerned about the "realities" which form the living situation of those "to, with, and for whom agents are responsible."[42]

An ethic of responsibility attempts to be "deeply realistic" – that is, thoroughgoingly pragmatic in its approach. It attempts to account for the lived realities of the human condition and their *real* options for action and aspiration. The cost of holding

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[39] Meilaender, *Bioethics*, 2.

[40] Matthew Zaro Fisher, "More Human Than the Human? Toward a 'Transhumanist' Christian Theological Anthropology," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 24.

[41] Schweiker, *Responsibility and Christian Ethics*, 75 (emphasis in original).

[42] William Schweiker, "Responsibility and Moral Realities," *Studies in Christian Ethics* 22, no. 4 (2009): 490.

this type of system, however, is that it requires a theologically cogent backdrop.[43] This type of system requires a *de*-anthropocentrism, recognizing that humans are not the center of the moral universe. Morality is shared among multiple beings – thus, humans are not the measure of what is "good."[44]

A coherent notion of responsibility will connect the agent of an action with the action itself. Likewise, there must be a level of responsiveness to the lived reality the person is in. Remember, persons do not act in a moral vacuum. By accounting for these ideas, an ethics of responsibility can provide a language of ethics agreeable to persons from various backgrounds and cultures. It can also provide a way to think about real human possibilities as an expression of their moral power.[45] According to Schweiker a robust ethics of responsibility will be able to perform multiple tasks: first, it provides a new way to discuss "longstanding" ethical problems; second, it allows for theologians and ethicists to account for the complexity of integrating varying cultural realities and philosophical differences; and third, a robust ethic of responsibility can provide a way to properly speak of God's actions in the world and how it relates to God. "In sum," he says, "responsibility ethics enables the theologian or the believer to reflect on the orientation of life in relation to the living God amid the actions and relations that constitute the moral space of life."[46]

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[43] Ibid.: 485.

[44] Ibid.: 483.

[45] Schweiker, *Responsibility and Christian Ethics*, 28.

[46] Schweiker, "Responsibility and Moral Realities,": 473.

Bernd Wannenwetsch remarks that the term "responsibility" is useful for "concealing the lack of clarity in the substance matter."[47] We may *like* the term responsibility, but we must also recognize that this is a morally saturated word and we are just as likely to assume it means certain things to some when it does not. With this warning in mind, we can nevertheless still use the term for moral discussion. Gerald McKenny notes that "responsibility" is an effective term to help "limit the ambitions and self-assertion of the modern moral subject" as well as "address the paradoxical coincidence of expanded human power and diffusion of moral agency characteristic of contemporary societies."[48] In other words, the term responsibility – despite its morally saturated nature – is a useful heuristic to: set limits on human action, and frame issues of contemporary justice.

Responsibility can thus act as a regulator of sorts that helps us relate power to personal and social goods – which is particularly significant in today's society given how much power is available through the use of modern technology.[49] When coupled with the decline in religious sentiment, "the good" is in particular danger. Now, for mid-twentieth century Christian ethicists responsibility had two purposes: morally evaluate human freedom; and provide principles of moral reflection.[50] Below will be an examination of

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[47] Bernd Wannenwetsch, "'Responsible Living' or 'Responsible Self'? Bonhoefferian Reflections on a Vexed Moral Notion," *Studies in Christian Ethics* 18, no. 3 (2005): 126.

[48] Gerald P. McKenny, "Responsibility," in *The Oxford Handbook of Theological Ethics*. Ed. by Gilbert Meilaender and William Werpehowski (New York: Oxford University Press, 2005), 252.

[49] Ibid., 239.

[50] Ibid., 238.

the role of responsibility for Christian ethics today, as well as an exploration into the elements of responsibility – imputability, accountability, and liability.

5.3.1 The Role of Responsibility

John Martin Fischer and Mark Ravizza remark that the idea of "taking responsibility" is an authentically historical notion which is revealed by "three major ingredients": first, the individual must see themselves as the source of their behavior – they must take ownership of their actions. They must see themselves as a moral agent; second, the individual must recognize that they are the target of *reactive* actions to their own actions. The individual has a causal influence on the world and should anticipate reactions to their causal influence; and finally, the individual's view of self must be based on the "evidence" – that is, the facts of their past actions.[51]

For Fischer and Ravizza, responsibility is associated with two types of control: regulative and guidance. Regulative control is a type of libertarian freedom in which the operative idea is that there are alternative possibilities for action.[52] Fischer and Ravizza focus mainly on Guidance control as Regulative control is too unmoored from one's social situation. As such, they see Guidance control is the central paradigm for understanding responsibility.

There are two elements to fully understand Guidance control: the "ownership" of the agent's behavior; and the "reasons-responsiveness" of that behavior.[53] Now for

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[51] Fischer and Ravizza, *Responsibility and Control: A Theory of Moral Responsibility* (New York: Cambridge University Press, 1998), 210-213, 238.

[52] For example, I can love my children or alternatively beat them. Guidance control does not address "alternative possibilities." Ibid., 240.

[53] Ibid., 241.

Fischer and Ravizza, individuals make behaviors *their own* when they *take responsibility* for their behaviors.[54] Taking responsibility means that at some point in life, a behavior or a moral mechanism of some sort acts as a "standing policy" for that person.[55] It is *I*, it is *me* that engages is this behavior – this is *my* action(s). *I* have a belief that *x* action will result in *y*. Thus, it is *me* that does *x* to gain *y*.[56]

The second component of guidance control is recognizing that there are different ways to respond to actions – various reasons why people respond as they do to a situation. Now, as persons have a reasons-responsiveness to any given action, they could take either a strong stance or a weak stance. A strong response is morally demanding and perhaps impossible since it requires a necessary reaction to any given action – not just a possible reaction. As such, a strong stance would seem to mitigate the responsibility of the reacting agent. A weak stance on the other hand requires far too little in the way of responsible reaction.[57] What is needed as an appropriate "in between" stance between the strong and weak reasons-responsiveness – a "moderate reasons-responsiveness." This middle-ground approach to responsiveness is the hallmark of Aristotelian virtue ethics – a search for the golden mean between extremes.[58] Thus, there is a definite connection between a search for responsible living and virtue ethics – the attempt to walk a mediating path.

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[54] Ibid.

[55] Ibid., 242.

[56] Ibid., 243.

[57] Ibid.

[58] Ibid., 243-244.

5.3.2 Accountability, Imputability, and Liability

There are multiple conditions that contribute to a notion of responsibility, and it should not be simply reduced to one aspect. For example, responsibility should not be considered *only* an expression of the "forensic dimension" of *accountability*, for there is more to responsibility than simply applying this legal aspect – Wannenwetsch notes that it should also include an active listening for a divine call "that provokes a response."[59] While this may certainly be part of what it means to be responsible, there is surely more to the concept than either *accountability* or listening for a "divine call."[60]

For our purposes there are two conditions normally thought necessary to attribute moral responsibility to some agent: a freedom-relevant condition and an epistemic condition.[61] Regarding the freedom-relevant condition (i.e., pertaining to the will), three aspects must hold. First, "a person is morally responsible for his action only if he has free will. . . . Second, . . . 'free will' is an expression of art, and that saying that someone has free will is not intended to entail that he has a *will* with the property of being *free*. . . . Third, . . . free will is connected with free action. Thus, a person has (or had) free will if

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[59] Wannenwetsch, "'Responsible Living' or 'Responsible Self'?": 127.

[60] Suppose for a moment that a person is morally responsible for some action – what are the conditions that hold in which it is appropriate to associate praise or blame with that person? By what criteria do we say that a person is morally praiseworthy or blameworthy? Joseph Keim Campbell, Michael O'Rourke, and Harry S. Silverstein, "Action, Ethics, and Responsibility: A Framework," in *Action, Ethics, and Responsibility* ed. by Joseph Keim Campbell, Michael O'Rourke, and Harry S. Silverstein (Cambridge, MA: The MIT Press, 2010), 1. In one respect, a major element is by the subject acknowledging and claiming responsibility for their actions – they *take* responsibility. This claiming of a behavior makes the action a "genuinely historical" act, and the person is (most likely) responsible for said action (of course, it is theoretically possible someone could ignorantly claim responsibility for some action in which they had no part but thought they did). Fischer and Ravizza, *Responsibility and Control*, 242—243.

[61] George Sher, "Responsibility and Practical Reason," in *Action, Ethics, and Responsibility* ed. by Joseph Keim Campbell, Michael O'Rourke, and Harry S. Silverstein (Cambridge, MA: The MIT Press, 2010), 203.

and only if some of his actions are (or were) free."[62] Stated differently, for responsibility to hold the agent must be expressing their free will (whatever that entails), which does not necessarily have to be understood in a libertarian sense, but must allow for some "free" action (in order for the action to rightfully be claimed by the agent).

Most philosophers understand free will in a libertarian sense – the absolute ability to do otherwise. Some philosophers call this sense of freedom the "alternative possibility of action."[63] And this gives rise to "the Principle of Alternative Possibilities": "*The Principle of Alternative Possibilities* (*PAP*) A person is morally responsible for what he has done only if he could have done otherwise."[64] There is a seductive element to this definition, for we often *want* to say that we are free to do otherwise, but the reality is much more limited – there are some actions that are simply beyond our ability, even if they are not beyond our imagination.[65] Once these factors are taken into account, it would appear that the *PAP* is insufficient for accounting for free will.[66]

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[62] Campbell, O'Rourke, and Silverstein, "Action, Ethics, and Responsibility: A Framework," 1 (emphasis in original).

[63] Ibid., 2.

[64] Ibid.

[65] To take a morbid example, do I have the *ability* to kill my children? If the question is asked as a simple matter of physics, the answer is "yes." I am much larger and stronger than all of my children and, therefore, it is assumed under *PAP* that killing my children is *a real possibility*. However, there is more to the question than simply the physics of the matter. Do I have the moral and epistemological character to murder my children? That is, do I have the disposition, the desire, and the motive to perform such a heinous act – "no."

[66] For in a very real sense, I *do not* have the "alternative possibility" of murdering my children. Because of this reality, *PAP* would say that I am not free, but surely *not* being able to murder my children in cold blood is actually *significantly* more freeing than having that be a real live possibility! I am free to love my children, without fear of intentionally harming them – what could be more freeing? Whereas if *PAP* is correct, I should be in constant fear that one of my possible actions would be to wring their life from their tiny body! *That* is not freedom – that is bondage.

The main problem with the libertarian notion of freedom then is that it divorces the individual from their lived reality. However, one can have a free will and yet not be constrained by some form of *PAP*, for one can be free *within* certain epistemological limits. As noted above, there is a free will dimension and an epistemological dimension. Libertarian accounts of freedom stress the free will aspect of behavior but tend to neglect the epistemological aspect of it.[67]

George Sher remarks that human deliberation on action is not a matter of truth but of pragmatics – what should we *do*? For any deliberation will attempt to account for the reasons beneficial and problematic for some action. Likewise, it will attempt to predict the reactions of others and how that may affect our goals and desires. Further, this entails that we are able to reflect on the act itself and that it is a *real* option for us to undertake. As such, it would seem to follow that we can be responsible only for those actions by which we are antecedently aware of their possible affects.[68] Indeed, being aware of the possible consequences of any given action is the key quality of responsibility.

Responsibility has three aspects: accountability, imputability, and liability. Accountability means "being responsible to *y*." Necessarily, there is a subject and an object for responsibility to occur. Some subject *x* is responsible to object *y*. That is, *I* am responsible to not harm *you*. *I* am responsible to help *you* in times of distress. Accountability in these instances mean that there is an obligation of some sort that *I* must fulfill to *you*. Of course, multiple strands of obligations may be at play at any given

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[67] I am epistemologically incapable of murdering my children, but this does not mean that I am not free. I can be responsible for the limited set of possible actions available to my epistemological horizon – even if I literally *cannot* have chosen certain alternatives.

[68] Sher, "Responsibility and Practical Reason," 208.

moment, but when we bracket the particular situation we can make sense of the accountable relationship. Some theories of responsibility play up the internalization of conscience rather than external action. That is, these theories focus on the interior act of the agent. Other theories of responsibility focus on the object of the act – the receiver of the action. These theories stress *to whom* the action is done as the appropriate locus of responsible reflection.[69] Given the understanding of accountability being responsible to an object I tend to side with the second understanding of accountability. This does not mean that the interior act of the agent is not important. Rather, this means that accountability is not determined by the interior act. It is the object that places the obligation on the agent, thus creating the need for being accountable. The interior conscience of the agent *does* matter in determining a responsible act just as much as the obligation that is placed on the agent by the subject of the act – but not for considering accountability. Both aspects are needed to have a full account of a given *responsible* action. It is the obligation placed on the agent by the object that allows us to truthfully say that the "agent is accountable to the object."

Related to accountability is imputability, which means "*x* is responsible." Accountability is the grounding for imputability, and while related, must be distinguished from accountability. Accountability focused on the object of the act, but imputability focuses on the agent. Even though we can make this distinction for evaluative purposes, do not mistake this as being separable in reality. Each moral act *includes both* accountability and imputability. We may be able to distinguish these aspects rationally,

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[69] McKenny, "Responsibility," 246.

but they cannot be separated in reality.[70] Indeed, since moral acts are social acts there is no understanding of imputability that does not involve the community (and ultimately, God), for it is to the community to which we ultimately answer and are either praised or blamed by that community for our actions.[71] That is, the community ultimately *imputes* upon us (in a legal sense) praise or blame for our actions. And even this praise or blame is assigned only after a lifetime of ethical evaluation of the whole person.[72] Imputability therefore is necessary to assign praise or blame to an individual, and is determined over the moral lifetime of the agent as recognized by the community.

Whereas accountability focuses on the object, and imputability focuses on the agent, liability focuses on the outcome of the act. When an agent performs some act (either noble or heinous) *what* they do is what they are liable *for*. This is concerned with the consequences of the action.[73] If I ram my car into a power pole thus knocking power out to the surrounding neighborhood, then I am *liable* for the damage the lack of power causes to those homes. Since it is the fallout of my (poor) action – even though unintentional – it was still *my* action that led to the outage. Thus, I am held responsible for that action. Likewise, suppose that I encouraged some destructive behavior even though I did not perform the act itself. Suppose I urged someone (as a joke) to knock out the power to the neighborhood, but the resulting power outage caused significant harm. Then even in this instance I am *liable* since I contributed to the problem even though I

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[70] Ibid., 245.

[71] Ibid., 246.

[72] Ibid., 244.

[73] Ibid., 248.

did not perform the action myself.[74] Thus, it is important to note that we generally hold people liable not only for actions they perform, but for failing to act rightly when they are expected to.[75] Hence, I can be liable for not performing an act just as much as committing some act.

5.3.3 Models of Responsibility

5.3.3.1 Catholic: John Paul II – Veritatis Splendor

Humanity has a genuine autonomy, but it is only fully expressed when it operates under the dictates of a moral law. For John Paul II, "*Human freedom and God's law meet and are called to intersect.*"[76] Humanity is most free when it submits to the moral law of God, for then humanity is at its most free to love with abandon.[77] Actions based on our choices reveals our spiritual condition.[78] When we act morally good we are making choices that conform to the true good (as established by God). Likewise, poor actions are divergence from the true good (as established by God). For humanity's true good is found in its ultimate end – God. Hence, any other end (however noble) will fail to be the true

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[74] Ibid., 249.

[75] Fischer and Ravizza, *Responsibility and Control*, 244.

[76] John Paul II, "Veritatis Splendor," 41 (emphasis in original).

[77] John Paul II takes a basic distinction as an assumption about human actions as being: acts of a human and human actions. The acts of a human are actions performed by a human being, but are capable of being performed by other types of beings. For example, eating, walking, breathing, sleeping, etc. There is nothing "special" about human breathing from that of other animals. However, in contrast there are also human actions, these are actions thought to be unique to humans and thus assume moral significance. For example, whether to report a thief or let them get away; whether to tell a "little white lie" or the "God's honest truth." This is not to say that acts of a human being are not in some way infused with meaning, but rather that human acts are bathed in moral importance. It is this distinction, which can be found in Aquinas (*ST* 1a2ae1.1), that John Paul II takes as foundational to understanding human beings and their various actions.

[78] Ibid., 71.

good of the person. Thus, if one seeks happiness, then it can only be found by being conformed to the good that brings one into communion with God.[79]

Because humanity has God as its end, this entails that the human moral life is basically teleological in nature.[80] Now, any teleological act is only as good as the object to which it is directed.[81] Further, this action not only shows a unity between reason, will, and action, but it assumes a type of unity of the *actor* – the one performing the action. John Paul II is seeking a holistic notion of morality, in the same way he seeks a holistic notion of human nature. As such, the body and soul cannot be separated, nor can the moral act from the reason and will that precede it.[82] This holism of the person and action cannot and should not be divorced when considering moral actions. It is for this reason that John Paul II rejects the idea of saying that an action is good only if the intention is good. A good intention is important (and necessary) for a good action, but it is not itself sufficient for determining if any action is good *per se*.[83]

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[79] Ibid., 72.

[80] Ibid., 73.

[81] Ibid., 78.

[82] Ibid., 49.

[83] Ibid., 78. Therefore, John Paul II rejects proportionalism and physicalism as sufficient moral theories. Proportionalists reject the notion that an action can be determined as good or bad by considering the object of the act. Hence, we could not say if a given killing were right or wrong until we were able to consider the intention and consequences of the action. Physicalism rejects the existence of moral law in general and hence is a non-starter for the Catholic pontiff. "*One must therefore reject the thesis, characteristic of teleological and proportionalist theories, which holds that it is impossible to qualify as morally evil according to its species — its 'object' — the deliberate choice of certain kinds of behavior or specific acts, apart from a consideration of the intention for which the choice is made or the totality of the foreseeable consequences of that act for all persons concerned.* The primary and decisive element for moral judgment is the object of the human act, which establishes whether it is *capable of being ordered to the good and to the ultimate end, which is God*." Ibid., 79 (emphasis in original).

Charles Pinches remarks that *Veritatis Splendor* is important for our purposes if for no other reason than it affirmed that there are such things as "intrinsically evil acts."[84] John Paul II addresses often what he sees as the errors of proportionalism, while putting forth a form of natural law – which is itself often criticized for being too physicalist.[85] John Paul II clearly wants to account for intention as part of the moral consideration of persons, and actually argues that claiming natural law is reducible to simply physical biological laws is wrong.[86] What John Paul II wants to avoid is making persons nothing more than simply their will – that is, pure intention.[87]

For John Paul II, human freedom and moral actions are subsequent to establishing the body's necessity. As such, discussion of moral actions appear to some as no more than an attempt to justify the physical acts of the body, even though the pope's intent is to deny the "merely physical" aspect of human action.[88] "In the end, however, the somewhat slippery use of 'intention' in *VS* [*Veritatis Splendor*] does not cause it to fall in any clear way into physicalism. In no passage does the pope imply that the object of the act is rightly and completely described in terms of a series of bodily movements."[89]

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[84] Ibid., 79—83. Charles R. Pinches, *Theology and Action: After Theory in Christian Ethics* (Grand Rapids, MI: William B. Eerdmans Pub. Co., 2002), 60.

[85] However, any physicalism found in John Paul II's natural law theory should *not* to be confused with that of a metaphysical naturalist. Indeed, criticisms from proportionalists against John Paul II's "physicalism" seem to miss the point of John Paul II's actual position. Pinches, *Theology and Action*, 64.

[86] John Paul II, "Veritatis Splendor," http://www.newadvent.org/library/docs_jp02vs.htm (accessed April 13, 2016), 47 (emphasis in original).

[87] Ibid., 46.

[88] Pinches, *Theology and Action*, 66.

[89] Ibid., 69.

John Paul II understands the mind and body in an ensoulment capacity as discussed in chapter 3. The mind and body are unified. The body is not simply an instrument, but integral to who the person is and how their actions are to be interpreted. From the preceeding we can draw three implications. First, human freedom is not wholly captured by the idea of autonomy. For, second, that freedom is tied to objective features of reality which limits it. Finally, what makes an action right or wrong is if it is ordered to the human good – that is, it is teleological in nature.

5.3.3.2 *Protestant 1: H. Richard Niebuhr* – The Responsible Self

The basic idea for H. Richard Niebuhr's notion of responsibility can be found in Douglas Ottati's summation, "*Agents act in response to actions upon them.*"[90] Humans are ultimately responders to their environmental situation, and the one who responds and is accountable for their (re)actions is the moral agent. For Niebuhr responsibility entails taking ownership of one's actions. That is, one is responsible for actions when they accept the consequences of their actions and look forward to future reactions to their involvement.[91] For Niebuhr there are four elements to responsibility: response, interpretation, accountability, and social solidarity.[92] *Response*, is the ability to account for and act accordingly given a particular situation. We are *responsible* for how we *respond* to our situation. The second element is properly *interpreting* the situation so that

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[90] Douglas F. Ottati, "The Niebuhrian Legacy and the Idea of Responsibility," *Studies in Christian Ethics* 22, no. 4 (2009): 409 (emphasis in original).

[91] H. Richard Niebuhr, *The Responsible Self: An Essay in Christian Moral Philosophy* (New York: Harper & Row, Pub., 1963), 64.

[92] Ottati, "The Niebuhrian Legacy and the Idea of Responsibility,": 61—65.

one is able to respond in the proper way.[93] The third element, *accountability*, carries a "legal" ring to it and refers to the self-conduct aspect of our actions. In a sense it attempts to anticipate responses and reactions to our (re)actions, but this leads to the fourth element – *social solidarity*. Because humans are social creatures we often (though not always!) attempt to act in the best interest of society as a whole. We adopt policies, attitudes, and dogmas reflective of the types of societies we want to foster. These four elements contribute to our understanding of what it means to be responsible. The give-and-take nature of action and reaction is the heart of Niebuhr's notion of responsibility.

5.3.3.3 *Protestant 2: William Schweiker* – Responsibility and Christian Ethics

For Schweiker, the notion of responsibility is essential for any proper notion of "self." This is because we are social beings and our relationships with others are very much measured by how we interact in our social environment. Given this network of relationships, he sees responsibility as a wholly appropriate way to evaluate how well we interact with others.[94] Further, responsibility is important because it requires a view of reality that allows for: 1) appropriate metaphysical beliefs; and 2) interacting agents which can deliberate and suffer (or enjoy) the results of their decisions.[95]

Responsibility is essential to an authentic moral life.[96] It can provide a "root metaphor" for understanding moral action.[97] That is, it can provide a locus from which

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[93] Niebuhr, *The Responsible Self*, 65.

[94] Schweiker, *Responsibility and Christian Ethics*, 15.

[95] Ibid., 16.

[96] Ibid., 199.

[97] Schweiker, "Responsibility and Moral Realities,": 480.

various aspects of moral action can be considered.[98] And this is done so that human persons can seek some semblance of wholeness "through the exercise of power."[99] There are different ways that power is "exercised, shared, evaluated, and justified" and responsibility offers a language of discourse for evaluating human conduct and conflict.[100] Discussion of power is important because without some form of power agents are unable to act – that is, moral agents cannot be truly accountable for their (in)actions if they do not have the power to perform or refuse any given action.[101]

Discussions of power attribution are even more pertinent in our modern technologically advanced society. At no point in the past was it possible for more individuals to utilize more power in more destructive (or beneficial!) ways than today. Today's technologically empowered citizens bear a burden of responsibility for global society unknown in previous generations.[102] One major downside to such power seeking is that it has effectively *decreased* the individual citizen's recognition of their responsibility to others throughout the globe.[103] That is, people are not worried how their actions and pursuit of power will affect others the world over, so long as *they* are able to "get theirs." Schweiker notes the irony of it all: "The irony of the technological age is that with the increase of human power the goodness of existence is affirmed in human

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[98] Schweiker, *Responsibility and Christian Ethics*, 40-41.

[99] Ibid., 48.

[100] Ibid., 25.

[101] Ibid., 25-26.

[102] Ibid., 26.

[103] Ibid., 191.

action while the policies which direct such action demean and destroy the possibility of continued existence on this planet."[104] What is going to be the challenge for society is how to utilize technology responsibly – how to enhance life rather than diminish it.

How then will we know if someone is being responsible (i.e., moral) in their use of power? For Schweiker, then, moral actions flow "from character, and moral character is shaped and constituted through social practices and discourse which mediates those practices."[105] We both shape and are shaped by our social practices. Likewise, the basis for all moral action is a notion of respect.[106] Respect is an honoring, or a prioritizing, of some principle, practice, or policy. Without respect, there can be no responsibility, and, hence, no truly moral action.

This leads Schweiker to discuss what he calls the "imperative of responsibility." This notion has multiple aspects and each plays a role in understanding what he means by the "imperative of responsibility." First, it means "that in all actions and relations we ought to respect and enhance the dimensions of value and their integration into a coherent and truthful way of life."[107] The base understanding here is the need to improve life for those with which we relate, but this must be done so with an eye to what is true and good. Second, "The imperative of responsibility is a critical principle for judging current ways of life and social relations. It specifies not only how we ought to live, but also what forms

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[104] Ibid., 211.

[105] Ibid., 93.

[106] Ibid., 127.

[107] Ibid., 130.

of life ought never to be lived."[108] That is, a proper notion of responsibility can allow us to make appropriate judgments about actions and ways of living that are or fail to be responsible. It allows us to say that some actions are unwise and irresponsible, as well as to praise actions that demonstrate responsibility. Third, the "imperative of responsibility" takes it as axiomatic that living a human life is *good*.[109] This implies that there is some objective characteristic to moral thought as affirming the *good* avoids mere subjective preference. Likewise, there is the assumption that humanity has some universalizable element, since it is "humanity" and not just any specific person or group that is to be honored.[110] Finally, the "imperative of responsibility" is universal since "all moral values can be specified with respect to these forms of the imperative."[111] An imperative is formal or rational command that resists violation. Kant's categorical imperative cannot be violated without undermining rationality itself (according to Kant). Likewise, the "imperative of responsibility" cannot be violated without undermining responsibility itself.

The Christian approach to an ethic of responsibility, then, draws on the insight from the tradition to gain principles, attitudes, dispositions, and the like. Different systems may arrive at similar principles as Christianity, and this shows that there is a difference of degree between various moral systems, not differences in kind. There are similar notions of good, virtue, justice, etc. the world over. These are not just uniquely

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[108] Ibid., 132.

[109] Ibid., 199.

[110] Ibid.

[111] Ibid., 209.

Christian notions. As such, it is possible for Christians to engage with and contribute moral insight to communities that are not traditionally Christian.[112] No doubt, that Christian moralists must address (or evade) criticisms of religion and Christianity, and likewise must translate Christian principles into a vernacular familiar to the target society. This can be especially challenging given the global wide skepticism that pervades many societies.[113] However, responsibility remains a robust concept from which to discuss morality as many people accept the pre-critical idea that *we* are accountable *for* our own actions, and that *we* are accountable *to* someone (or something) else as a prerequisite for understanding what is or is not responsible.[114] Thus, responsibility is a wholly appropriate category of moral reflection.

Moral agency is essential for any theory of responsibility, for without "some measure of control over their behavior," moral agency makes little sense, much less any notion of responsibility.[115] Agential theories of responsibility focus on the acting agents power to perform some action, and assigns praise or blame as appropriate.[116] As such, any theory of agency must make the connections that the agent is a *cause* in the world (i.e., the agent can affect change), and the agent is *held* responsible for their actions.[117]

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[112] Schweiker, "Responsibility and Moral Realities,": 475—476.

[113] Ibid.: 462.

[114] Schweiker, *Responsibility and Christian Ethics*, 76.

[115] Ibid., 20.

[116] Ibid., 78.

[117] Ibid., 136.

An essential component to a theory of responsibility is a notion of human efficacy. If someone is to be held *morally* responsible for some action, they minimally could be said to have had the ability "to do otherwise." If an agent was compelled to act, or was under duress, or forced to act by some other factor, or they were ignorant of relevant facts, etc., then we say their ability to do otherwise was "mitigated." Thus, if their ability to choose has been compromised, "it is difficult to hold that agent morally responsible."[118] "Voluntariness" is often contrasted to "compulsion" – it is *my* action that is performed irrespective of certain influences. *I* am the one who wrought some deed. It can be said that one "acts voluntarily even if internal passion for some good overrides better judgment."[119] Because of the voluntariness of moral action, the only mitigating factors of responsibility are compulsion and ignorance.[120]

It is important to remember that moral identity is not determined by the mere fact that one is an agent. Our self-understanding of our moral lives is contingent and can change – even though having some sense of self-understanding is logically necessary for a moral agent. The point is, while moral agents must have some sense of moral identity, there is no necessary perception that one must have any particular moral identity. As Schweiker notes, in theory "we can change or revise our self-understanding and thus our identities."[121] This is true moral freedom – being in control of our moral lives. It is not being free of all influences.

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[118] Ibid., 142.

[119] Ibid., 70.

[120] Ibid.

[121] Ibid., 147.

5.3.3.3.1 The Integrity of Life

For Schweiker, being responsible has one major goal – to enhance "the integrity of life." Responsibility expresses a common set of moral values, which in turn, respects and enhances the lives of those within the purview of the acting agent. The shared set of moral values arise from within the various communities shaped by global realities.[122] By the phrase "the integrity of life," Schweiker means the overall "good of persons, communities, and the ecosphere as these manifest in different degrees pre-moral, social, and reflective goods."[123] Actions that encourage this holism tend to be responsible, and those that mitigate the integrity of life tend to be irresponsible. Thus, for Schweiker having respect for the integrity of life (wherever it may be found!) "provides content to what it means to respond rightly and justly to others."[124]

This notion of respecting the integrity of life is central to Schweiker's thought. For not only does the idea of the integrity of life "demarcate the good" but it also carries with it three interrelated ideas. First, it highlights the "dynamics" of living by human persons – life is complex, and persons do their best to live their life as an integrated whole. Second, since human persons seek a flourishing life they undertake a "project" of integrating the "various levels of goods" with which their life is defined (i.e., physical well-being, social relations, etc.). Finally, the integrity of life denotes that it is a particular agent that attempts to have "moral integrity." It is by and for the individual within a

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[122] Schweiker, "Responsibility and Moral Realities,": 494.

[123] Schweiker, *Responsibility and Christian Ethics*, 209.

[124] Ibid., 126.

social context that the person lives and must navigate, and the idea of enhancing the "integrity of life" can help them in that process.[125]

Schweiker is convinced that the imperative of responsibility demands that "*In all our actions and relations we are to respect and enhance the integrity of life before God.*"[126] Basically, the meaning of responsibility is to enhance the integrity of life, for "the integrity of life *is* the moral good; the source and goal of that good and thus the scope of the moral community is defined in relation to the divine."[127] This relationship to the divine cannot be dislodged from his account of the integrity of life. Indeed, a theological grounding is necessary for the "conceptual means" to traverse the varying rationalities that consider responsibility as an outlook on life.[128] For Schweiker, the Christian faith fully enlivens the integrity of life and provides a solid ontology in which to integrate the realities of life.[129] In other words, his Christian faith provides the framework from which he can make sense of the world.

5.3.3.3.2 A Matter of Faith

Faith plays a major role in Schweiker's grounding paradigm for maintaining the integrity of life. And while Schweiker finds the Christian story the most likely and consistent with a theory of responsibility, he does not mean to imply that this is the *only* means for grounding a workable theory. However, *that* a theological grounding is

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[125] Schweiker, "Responsibility and Moral Realities,": 491—492.

[126] Schweiker, *Responsibility and Christian Ethics*, 33 (emphasis in original).

[127] Ibid., (emphasis mine).

[128] Schweiker, "Responsibility and Moral Realities,": 494.

[129] Ibid.

necessary he leaves no doubt since he states that the "source of responsibility" is found in God – not in just the increase of human power.130 Exploring classical theism, Schweiker notes that the moral life was once understood to have its foundation in a personal deity – this provided a telos to life and ontological grounding. However, since the erosion of belief in God has in large measure been accomplished, the "metaphysical, anthropological, and theological means for providing norms for life" has largely disappeared with it. And with the loss of God, has come a desire to fill the void with power over nature.131

For Schweiker, the Christian faith is a prophetic voice for contemporary culture. It urges us to seek justice and mercy, act with integrity, and sets demands on our lives which are possible only if one views their living as being before God. Put simply, living a life of integrity before God *is* the hallmark of responsible living.132 The content of such living is found in respecting and enhancing the integrity of life.133 The reality of our need to be responsible is so basic to the Christian life that to deny it "is to deny the condition of one's own existence as a relational agent and likewise to deny the reality of God."134 An obvious impossibility for a true believing Christian. Thus, Christian believers are responsible persons who want to enhance the integrity of life for all people.

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130 Schweiker, *Responsibility and Christian Ethics*, 213.

131 Ibid., 193.

132 Ibid., 133.

133 Ibid., 127.

134 Ibid., 210.

Moral integrity is one of the goals of the Christian life, but it cannot be aimed at directly. Rather, authentic integrity is discovered as one seeks to respect the integrity of life before God. As Schweiker phrases it, one "must lose themselves in order to find themselves," for it is only in recognizing that there is a purpose to life other than selfish fulfillment that true authenticity is found.[135] It is being in service to God that true purpose is found – or, at least this is the claim of Christians.[136] But being in service to God does not mean that there are not many goods that attend the human life. Indeed, the Christian account wants to increase the goods in people's lives, not diminish them. Classically, this was understood as one ultimate good and many proximate goods. Some critics may claim that Christians want to reduce all goods to one, but this is not true according to Schweiker. The real issue is that Christians simply do not want to valorize power and make power seeking the pinnacle of human ambition.[137] According to the Christian story, hubris is what separates us from God and each other. Hubris (i.e., pride) is what instituted the Fall, and introduced sin into the world. As such, Christian approaches to moral reflection tend to downplay the all-out search for power.

McKenny notes that "Schweiker advocates responsibility as the solution to the problem posed not by the expansion of human freedom but by the expansion of human power. The question is not how freedom can be exercised morally in the absence of determinate norms, but rather how power can be exercised for the sake of the good

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[135] Ibid., 225.

[136] Ibid., 225-226.

[137] Ibid., 226.

without becoming itself the good."[138] Responsibility must ultimately be about the correct use of human power and how it is subject to moral examination. Power must never be sought for its own sake, but only for the sake of the good – which is God. Responsibility then is a tool to enhance the integrity of life.[139] As McKenny summarizes it, "Responsibility nevertheless assumes a privileged position for Schweiker, precisely because human power looms so large; the realization of the good is critically dependent on whether human beings exercise power to respect and enhance life or to demean and destroy it."[140] The enhancement of the integrity of life is the goal of a responsible life.

5.4 Foundations and Models of Agency

Classical natural law is based on "imitation" – that is, classical natural law is based on the notion that humans somehow reflect God's image.[141] Part of what it means to reflect God's image is to be imitators of God. Since God is *the* primary acting agent on the universe, it would seem to follow that humans are in some way *secondary* acting agents on the universe. However, this entails that humans are in some way *acting* agents. To be a moral agent is to claim that one's actions flow from the subject in a substantial way, so that the action can be said to be "owned" by the agent – they are responsible for the action. Likewise, this assumes a community of various agents in which moral action

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[138] Gerald P. McKenny, "Responsibility," in *The Oxford Handbook of Theological Ethics*. Ed. by Gilbert Meilaender and William Werpehowski (New York: Oxford University Press, 2005), 239.

[139] Ibid., 240.

[140] Ibid.

[141] F. Russell Hittinger, "Toward an Adequate Anthropology: Social Aspects of *Imago Dei* in Catholic Theology," in *Imago Dei: Human Dignity in Ecumenical Perspective* (Washington, DC: The Catholic University Press of America, 2013), 54.

takes place. Moral agents interact with other agents, and this creates a whole "field of interactions and interrelations."[142] And it is the entirety of these relations that gives rise to our moral horizons.

To account for agency, then, three areas will be explored. First, we will briefly examine the elements of all moral action – what are the conditions that hold to say that some action is moral. The second section will be an exploration of the contemporary theologian Charles Pinches and his interpretation of Thomistic moral actions. The third section will look more closely at a Thomistic ontology of moral action by inspecting the arguments of Brian Green.

5.4.1 Elements of Moral Action

Albert Jonsen notes that there are six elements of moral action. Any moral action must include at least: 1) the *intention* of the agent; 2) the *motive* of the agent; 3) the agent must *deliberate* about their action; 4) the agent must act *voluntarily*; 5) the agent must act without *excuse*; and 6) the agent's actions reveal and contribute to their *character*. When these six elements are considered, we can have a more complete account of the agent's moral action.

Intention is the "thought of an action" that is present to the mind of the agent.[143] Intention is the cognitive goal of the agent and thus is the object of thought – that is, it can be stated in words. And the fact that this is a rational category means that the action

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[142] Ottati, "The Niebuhrian Legacy and the Idea of Responsibility": 409.

[143] Albert R. Jonsen, *Responsibility in Modern Religious Ethics* (Washington, D.C.: Corpus Books, 1968), 41.

can take on a "distinct moral connotation."[144] Someone who has the *intention* of misleading someone can be said to have the *intention* of "lying." Likewise, to *intend* to take money from someone without earning it is to have the *intention* of "stealing."[145] Hence, when we want to praise or blame someone for their action we often "require the presence of a good intention" for someone can hardly be praised for a good outcome if they tried to harm people, and they can hardly be *fully* blamed if they tried to help people.[146] Likewise, the absence of any sort of intention mitigates or nullifies blame for wrong-doing or praise for "right-doing."[147] An *un*intentional act, then is when the consequences do not match what the agent anticipated. In these instances, we can rightfully say that "the agent had no intention at all."[148] Therefore, to allocate responsibility upon a subject would seem to be most appropriate *only* if the agent's actions "in some way reflects" their intention.[149] Without intention, there is no responsible moral agent.

Related to intention, but holding its own distinctive nature, is motive. The intention is immediate and localized – it is regarding a specific act. Motive on the other hand is more holistic. As Jonsen distinguishes the two, motive "is that which determines the agent to aim at the objective and engage in the designed action. A motive moves,

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[144] Ibid.

[145] Ibid., 42—43.

[146] Ibid., 43.

[147] Ibid.

[148] Ibid., 42—43.

[149] Ibid., 44.

urges, impels (*motum*)."[150] Motive is the overall goals of the agent – the agent desires to

be rich. Intention directs the specific means to the goal – the agent tries to steal the

money. "Intentional actions, then, are undertaken for a motive, a reason, in the light of

which they are objects worthy of my attention and pursuit."[151] Motive, then is important

for properly attributing how much responsibility an agent incurs. By determining the

overall goal of the agent, we can more readily place their action in a larger context and

judge accordingly. Motive is sometimes taken as being the primary criteria for

determining if an action is good or bad.[152] Thus, motive directs the intention of the agent

and puts the action in the context of the agent's desires.

Also related to intention and motive is deliberation. Now, deliberation is different

from either motive or intention in that deliberation is the mental act of *reasoning out*

what one is doing. It is a fully conscious awareness of one's acts. As Jonsen describes it,

when "we say that an act is deliberate, we mean that it has been reasoned out, with clear

awareness of what one is doing and what will come of it. An act may be intentional

without being deliberate."[153] Now deliberation works along several levels. An agent can

deliberate about their intentions, courses of action, their motives, or any other such

topics.[154] "Deliberation, then, seems to involve both the planning of means to the

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[150] Ibid., 45.

[151] Ibid., 46.

[152] Ibid., 47—48.

[153] For example, I may have the motive to get rich, and I may make the intentional act of stealing from the cash register at the store, yet this would not be deliberate in the sense that I did not account for the security cameras watching me, or how exactly I was to get out of the store, or any other such problems. I did not "plan" the theft, but rather saw an opportunity to steal and took it. In this scenario, deliberation was left out – there was no prior planning or forethought to the consequences of my action. Ibid., 49.

[154] Ibid.

intended end and the weighing of motives which incline to one or another decision."[155] Since deliberation is integral to moral action, it cannot be ignored as part of a theory of action.

Most obvious is the idea that an action can only be morally attributable to an agent if the action is voluntary.[156] The action must correspond with the will of the person and they cannot be coerced, tricked, or conned into acting a particular way. For if they are coerced in any way, then their responsibility is mitigated if not absolved from the action. A voluntary act means that the act in some way originates with the agent as the cause – it is *my* action. The agent can rightfully claim ownership over the action and accept the attending praise or blame that accompany it.

In connection with the voluntary nature of moral action is the idea that the agent has no *excuses* for the action beyond their own doing.[157] When an agent offers an excuse for some action what they are attempting to do is show *why* they cannot be held (completely) accountable for some action.[158] Excuses, then, are attempts to mitigate responsibility for moral actions.

The accumulation of our habits, actions, deliberations, and reflections all contribute to our character – a fairly stable condition of behavior. Character is generally marked by its durable and constant nature as well as its readiness to accept praise or

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[155] Ibid., 50.

[156] Ibid., 52—55.

[157] Ibid., 55—57.

[158] For example, I may attempt to excuse my petty theft of the cash register by stating that I was hungry and needed money for food. Supposedly, by needing to meet my hunger needs, I cannot be held as responsible for the theft than if I just wanted to steal the money for the sake of stealing.

blame for actions.159 Character can be thought of as the most important aspect of the agent, for a "good" character will reliably perform praiseworthy actions, while a "bad" character will not.160 Even the practice of honoring good actions and punishing bad ones is an exercise in encouraging (or discouraging) certain moral habits. That is, praise and blame are attempts to shape character.161

Given the preceding, it should now be clear that an agent is responsible for an action and able to accept praise or blame when these elements align. To accept praise, the agent must have the right *intention* as guided by the right *motivation* made by the proper *deliberation*, and executed as a *voluntary* act without *excuse* derived from the agent's *character*. When these elements are properly aligned, then we can say that the agent is morally praiseworthy. Likewise, when these elements are improperly aligned we can say the agent is morally blameworthy. However, all of the elements need to be present to fully attribute praise or blame to the agent.

5.4.2 Moral Action: Charles Pinches – *Theology and Action*

All actions require a "home," for all actions are in *some* context.162 Stated differently, all human actions take place within some narrative – they are contextualized within history. Indeed, "homeless human behavior" puzzles us precisely because it is without some context.163 If we saw a man coming out of a home improvement store with

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159 Ibid., 58—59.

160 Ibid., 59.

161 Ibid.

162 Pinches, *Theology and Action*, 13.

163 Ibid., 14—15.

a wheelbarrow and series of gardening tools as well as a few plants, we would immediately infer that he is working on a garden of some sort – probably his own, but possibly for someone else. The actions of the man coming out of the store with those items is "at home" in that context. If, however, we saw a man coming out of the same store but instead of walking calmly to their vehicle with bags of garden equipment, the man instead takes a step, twirls in the air, pats his head three times and then continues repeating this process across the parking lot. Upon viewing this person, you are not likely to think that this is "perfectly normal behavior." For these actions are not congruent with the context of exiting a home improvement store. These actions have no context – they are "homeless." Perhaps the man is doing this because he lost a bet. Or perhaps he has some unusual religious belief that if he does not perform this ritual, then the world will end. Whatever the reason, this would provide the needed context to make sense of his actions.

Below we will explore Pinches' account of moral action. For our purposes, this will take place in three steps. First we will see how he describes human actions in general. Then will examine how the virtues connect to moral action. Finally, we will see how Pinches classifies moral actions and see why that is important.

5.4.2.1 Explaining Human Actions

People have explanations for their actions, and those explanations are needed to fully understand a particular behavior.[164] What this requires is an understanding of action that avoids reductionism. While it may be true that some things are more completely

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[164] Ibid., 16.

understood when broken down into their constituent parts that is not the case with moral action. Moral activity is analyzable only in relation to the whole and is not reducible to distinct "events."[165] To use an example by Pinches, imagine a reductive account of someone taking target practice at the shooting range. How are the various actions to be understood in this "event"? Pinches notes (at least) six "distinct" actions that can be collated into an "action tree": 1) S's willing to move her finger at t; 2) S's moving her finger at t; 3) S's pulling the trigger at t; 4) S's firing a gun at t; 5) S's shooting at the target at t; and 6) S's violation of a prohibition on firearm use at t.[166] Undoubtedly, more "actions" could be accrued for this one event, and this is Pinches' point. Does "S pulling the trigger at t" really help us understand what moral action S is performing in itself? It seems not, for it is the context of S pulling the trigger that matters. But the context is itself, not part of the moral action – only S is responsible for the act. However, the context frames the action into an intelligible moral account. The simple phrase "S's pulling the trigger at t" is wholly indeterminate for judging if pulling the trigger is morally justifiable or not. It is pulling the trigger in light of the surrounding context that makes all the difference. For example, pulling the trigger to mug someone in a dark alley is morally reprehensible. Pulling the trigger as a soldier in combat may be morally justified. Conversely, pulling the trigger for a little "target practice" even though there is a prohibition on firearm use may be morally ambiguous (i.e., was S aware of the prohibition? If not, then S is vincibly ignorant. If, however, S was aware of the prohibition and pulled the trigger anyway, then S is fully responsible for any consequence

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[165] Ibid., 23.

[166] Ibid., 25.

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that may ensue). The point is, without framing the context in which the trigger was pulled, we have no way of judging the moral worth of the reductive action. Engaging in a little prohibition violating target practice is the context from which we judge the pulling of the trigger and the pulled trigger *cannot* be wholly separated from its context if it is to retain any meaning for us.[167] Put simply, moral actions cannot be reduced to discrete actions.

In the same way moral actions cannot be reduced to single monistic actions, so too does Pinches think that moral foundations cannot be reduced to a single monistic principle – whether it be love, respect, justice, or any other such singular category. There appear to be many moral principles that (while congruent) are not reducible to some more foundational idea.[168] Indeed, to insist on developing one overarching moral principle as the foundation for all others, "cheapens" the human experience.[169] Life is varied and complex – it is messy. However, a singular foundational moral principle is "neat and tidy." But this is precisely how life is not.

Human actions then must be put in context. At the broadest level they are in the context of God's creation. Human acts are human works. As Pinches puts it, God is known by His works, and humans are known by theirs.[170] Since humans act for their flourishing (i.e., classically understood as happiness), the end goal of human actions is important to note. For Pinches (along with most Christian theologians) the end point of

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[167] Ibid., 25—27.

[168] Ibid., 50—53.

[169] Ibid., 53.

[170] Ibid., 88.

human action is union with God – God is the end goal of humanity. *How* we are to achieve that happiness is, of course, the main question. For Pinches, the answer is found in virtuous living that directs us to union with God.[171]

5.4.2.2 Moral Actions and Virtues

Human actions and morality are coextensive.[172] Pinches agrees with Aquinas that "moral virtues are nothing more nor less than the perfection of a power to act, or, in another definition, they are operative habits."[173] Humans act, and they do so for some end. As such, "good" acts are conductive for achieving that end and can be judged as accordingly as appropriate for achieving that end.[174] A common way of thinking about this acting toward the end is by considering the classical virtues.

Virtues are similar to skills and are necessary because we are human beings, and to "be born a human being is to be born into the game of morality."[175] Echoing Pascal's famous wager, life is a game that we must play – we do not get to choose to not play. Similarly, we are involved in a game of morality and we cannot choose to not participate. Whether we like it or not, our lives are set in a moral context and our actions contribute to the overall package. Virtues are needed to see the world properly. Virtuous living allows people to see the world truly – actions must conform with reality. Given the fact that descriptions of virtue and vice are set in a moral context, it follows that one aspect of

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[171] Ibid., 89.

[172] Ibid., 106.

[173] Ibid. Pinches here is following Aquinas in *ST* 1a2ae5.5.2.

[174] Pinches, *Theology and Action*, 107.

[175] Ibid.

human action cannot be taken as the primary indicator of whether an action is moral or not. For example, an action is "good" not *just because* the agent intended goodness. Pinches, thus, disagrees with Kant's assessment that all one needed was a "good will."[176] For Pinches, goodness is more than attitudinal, it involves the whole person in context, which is exemplified by "virtuous" living.

5.4.2.3 Classifying Acts

"Species classifications of whatever kind *fix* a thing in a category from which it cannot be easily moved."[177] This "fixedness" of the human act allows us to deliberate on the moral appropriateness of an action. Further, having a "fixed" nature allows for the act to have an essential moral truth that is known by God, and can be known by us. Likewise, if there is this essential moral truth that applies to an act, then it can apply to multiple similar acts. But if this is the case, then it is possible to classify a whole species of actions as morally wrong (or right). To use Pinches' example the use of the phrase "adultery" shows that the "classification of an act under 'adultery,' therefore, conveys to us something very important, namely, the truth that this act ought not to be done."[178]

In contrast how would a physicalist categorize an action like "bravery"? Pinches ponders:

> If I say, for instance, that S did something courageous, you will want to know just what it was that S did. And to get this description we will need to turn to the world in which the action was done. But . . . this cannot be found in a 'physicalist' or natural description. So if I say 'S's legs propelled S's body and it subsequently covered a small oval object,' this does not help in displaying the thing S did that I supposed courageous. What I need to say is that S smothered a

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[176] Ibid., 109. Notice too, that John Paul II came to the same conclusion as explored above.

[177] Ibid., 118 (emphasis in original).

[178] Ibid., 118—119.

live hand grenade. When I do this, I set the act plainly in the human world where it belongs, the world of human ends and purposes.[179]

Physicalist's descriptions of moral actions divorce the action from its moral significance. Objectively stating the agent involved and the material processes in which the agent engaged leaves the act morally barren. It is the significance of the sacrifice of S jumping on a live grenade that allows us to judge that the action was "brave."

All of this is to say that the circumstances surrounding a particular act matter for being able to properly understand the act. The circumstances surrounding the act are key to understanding that act, but the circumstances do remain separate from the object of the act.[180] Using the example above, the object of the act was S smothering the live grenade, the circumstances are the overall context in which this took place. Was this a war zone? "Friendly fire"? During training? Who was saved? What was the cost to S besides sacrificing themselves? Etc. We can rationally consider each of the circumstances as separate from the action, but we should not divorce them from the action as this would render the action unintelligible in itself.

To choose a course of action requires an act of the will. It is the interior act of the will that chooses a course of action, and it is that act of the will that makes us morally culpable for said action.[181] The will determines an object (i.e., action) in relation to the agent's goals and the best means to achieve them. This is an internal (i.e., private) process. However, the action pursued is an external (i.e., public) process. And this action

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[179] Ibid., 119.

[180] Ibid., 121.

[181] Ibid., 124.

cannot be described or properly understood apart from its place in the world – that is, it cannot be understood apart from its context, its circumstances.[182]

Good actions have both a good will and some form of a good result. Evil actions have both a bad will and bad result. However, two indeterminate possibilities – actions that are partially good and partially bad – results. Aquinas holds that for an act to be truly good four criteria must be met: first, it must be good according to the act's genus; second, it must be good according to its species; it must be good according to its circumstance; and it must be good according to its end (*telos* / intention).[183] Only when all four of these criteria are met can an act be said to be truly good. All other actions may be considered good or bad depending on their degree of departure from these criteria. The point for us, however, is that this indicates that for Aquinas there is such a thing as an "intrinsically evil act" the same as developed by John Paul II in *Veritatis Splendor*.[184] Given the above understanding of moral actions in a particular context it would seem to follow that a good will cannot undo an evil external act.[185] But an "evil external act" is just another way of saying "intrinsically evil act." As such, the external (i.e., objective) action itself is what matters. Any actions named as evil by their description are always wrong – hence, they are called *evil* external acts. There is no redeeming an evil external act by circumstance or intention. They are simply wrong. But the corollary does not follow. Just because an external act is *good* it does not follow that the person is morally praiseworthy.

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[182] Ibid., 125.

[183] Aquinas, *ST* 1a2ae18.4.

[184] John Paul II, "Veritatis Splendor."

[185] Pinches, *Theology and Action*, 129.

As such, we must pay attention to our moral descriptions of actions – for how we describe an act often assumes a moral position in naming that act.

> Herein lies the future of moral inquiry: namely, the careful and critical attention to the great variety of our descriptions. . . . Since, . . . moral descriptions are tied by at least two cords to the human life — they are for us to use, but also about us the users — then what we can say is inextricably tied up with who we are. Moral notions, those notions human beings apply to human life, will in this way be less stable than human descriptions of the nonhuman.[186]

In general, when we rename moral actions we do not just "change the name but we change the thing."[187] But in doing this we change ourselves – which may or may not be necessarily for the better.[188] Names matter, and so does moral categorization. For how we describe an action conveys the level of appropriateness in engaging in that act.

Of course, the appropriateness of an act is determined by the moral context of the agent. Again, *if* this is a theistic world, then God must always be part of the consideration of context. All actions are done in sight of God. But even apart from God, all moral actions take place within a particular community. And because morality is learned and performed within a community, how that society talks about morality will influence how certain moral patterns and behaviors are received.[189]

The social and communal consciousness about what is and is not moral is largely given by a communal narrative. The language, words, analogies, and stories often have a

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[186] Ibid., 158—159.

[187] Ibid., 159.

[188] Ibid. For example, consider traditional notions of marriage or adultery in light of today's trends. At one time adultery was a scandalous crime, now it may be sad for some but welcomed among others. What is our collective attitude now towards adultery?

[189] Ibid. For example, it used to be the case that divorce was sufficient for making one a social pariah – divorce was largely frowned upon. Today, divorce is so common and so accepted by the community, hardly anyone takes divorce to be a moral problem.

shared communal history and are told, retold, and reshaped within a community to deliver a morality tale. These stories, in turn, explain what actions are and are not appropriate within that society. As such, the use of a term or phrase in a moral context cannot be separated from the context from which that term or phrase was learned and how it was understood.[190] For the same term can have different meanings in different cultures. Nevertheless, the use of narrative can help one understand a moral system as "stories themselves can serve as the foundation of genuinely new moral notions."[191] Again, human living is in a context, and it needs a "home." My actions are not *mine* alone, for my attitudes, values, inclinations – my story – is part of the community in which I inhabit. This could not be otherwise, for the world is communal and my actions contribute to the communal history of my society.[192] Thus, I have a responsibility to others as a moral agent.

5.4.3 Thomistic Ontology and Action

Gilbert Meileander hopes that bioethics will be able to return "to the metaphysical richness that characterized its early years."[193] Part of returning to that "metaphysical richness" will be coming to terms with some definition of "good." For a definition of "good" is central to finding meaning. "Enhancement technologies, and the debates surrounding them, strike right to the core of how we define the good life."[194] We

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[190] Ibid., 161.

[191] Ibid., 162.

[192] Ibid., 165.

[193] Meileander, *Body, Soul, and Bioethics*, 29.

[194] Lake, *Prophets of the Posthuman*, 46.

understand ourselves in narrative and this speaks to how we understand "the good life." This means that the moral life is primarily *teleological*, "since it consists in the deliberate ordering of human acts to God, the supreme good and ultimate end (*telos*) of man."195 Humans are made for communion with God, and in coming into union with God we recognize that there are "true limits to human freedom."196

Human freedom and moral consideration cannot be reduced to one aspect (as shown above). Thus, framing human morality as only in intention is insufficient. A consideration of the object of the act must also be taken into account. And in the Christian context, can that object be ordered in some way toward God. For, again, in the Christian context, all actions should be ordered to God as their ultimate end.197 One way of examining this connection of acts and ultimate ends is by looking at the classical natural law tradition.

The natural law tradition, expounded primarily by Catholics, is based on the fundamental principle that "action follows being" – *agere sequitur esse. What* something is determines what it is supposed to *do*. That is, "by knowing what something is (its nature), we can know something about how it should act (its ethics)."198 In the natural

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195 John Paul II, "*Veritatis Splendor*," 73 (emphasis in original).

196 Meilaender, *Bioethics*, 4.

197 "The reason why a good intention is not itself sufficient, but a correct choice of actions is also needed, is that the human act depends on its object, whether that object is *capable or not of being ordered* to God, to the One who 'alone is good', and thus brings about the perfection of the person. An act is therefore good if its object is in conformity with the good of the person with respect for the goods morally relevant for him. . . . The human act, good according to its object, is also *capable of being ordered* to its ultimate end. That same act then attains its ultimate and decisive perfection when the will *actually does order* it to God through charity." John Paul II, "*Veritatis Splendor*," 78 (emphasis in original).

198 Brian Patrick Green, "Transhumanism and Catholic Natural Law: Changing Human Nature and Changing Moral Norms," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 201.

law tradition, this points to the being's happiness and fulfillment. To use Aristo-Thomistic terminology, the transhumanist movement's tendency towards "potency and away from actuality is not necessarily a gain in ontological stature, but instead could be a reduction."[199]

The transhumanist pursuit of power "and reducing determinacy of action" approaches nothingness, not existence.[200] Transhumanism's insistence on mastering the material and the efficient, and distancing itself from the formal and teleological, means that transhumanism embraces matter more than form. Again, in Aristo-Thomistic concepts, the closer one comes to the purely material, the closer they come to nothing. For in the Aristo-Thomistic system, pure matter *is* nothing – or more precisely, pure matter *is not* anything at all. Pure matter does not exist. Pure matter is pure potentiality. As such, the transhumanist quest to perfect the material, or at least, to master matter, is a quixotic endeavor according Aristo-Thomistic philosophy.[201]

A future natural law ethic will need to do three things: 1) observe human nature for changes in potential actions – for this may signal a change in *telos*; 2) safeguard the five basic *telei* in classical natural law – survival, reproduction, education, society, and truth seeking; and 3) recognize that as beings change, so too do the actions performed or abstained that contribute to that being's flourishment. New avenues of ethical discussion will undoubtedly need to take place.[202]

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[199] Ibid., 211.

[200] Ibid.

[201] Ibid.

[202] Ibid., 212.

So, will natural law be "done away with"? Perhaps, it all depends on what is meant by natural law. If it means the approach *per se*, that is by considering the idea that "action follows being," then the answer appears to be "no." Natural law will remain, as *agere sequitur esse* is a fundamental aspect of reality. As Green remarks, ethics can always be based on this notion.[203] If, however, what one means by natural law is the normative conclusions of such an undertaking, then the answer appears to be "yes." Natural law will need to change. However, this change would be relative to the change in the being. A relatively minor biological change may not move the natural law needle at all, but a relatively major change may undermine an entire ethical system. The individual school of thought will need to address the controversies as best they can. For example, the rationalist school of natural law will have a relatively easier time adapting to this brave new world than the physicalist school of natural law.[204]

As such, Green examines six interrelated questions relevant to the notion that a change in nature may impact moral obligations. First, is human nature relevant to morality? Historically, natural law theory has answered "yes." For ethics is a study of ends (*telos*). Ethics looks to the good of beings, often considered their fulfillment or happiness. Ethics "mediates both nature and *telos*."[205] It is a middle-term that takes *what* a thing *is*, sees the end of that thing, and then determines the means to best achieve that end. Now, this perspective only makes sense if *telos* is in some way real. With the current trend in philosophy to eliminate final causes (i.e., *telos*) from our considerations of the

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[203] Ibid., 213.

[204] Ibid.

[205] Ibid., 203.

world, there has been no grounding for moral action. All with which we are left when the ends are removed is the "is" of nature.206 With no ends to consider, there are no natural ethics believed to exist. If, however, *telos* is a real feature of the world, then it would play a crucial role in determining ethical activity.

The second issue to consider is if human nature is mutable. In consideration of this issue, Green adopts Aquinas' distinction that there are two natures in humans: a first and a second (cf., *ST* 1a2ae32.2.ad 3). The first nature is the universal nature shared by all humans – it is what metaphysically and biologically binds all humans together. The second nature is group specific – it varies by geography and culture.207 Historically, we have had very little control over "first" nature, but significant control over "second" nature (even as we are shaped by it). Now, Green thinks that limiting the categories to two is insufficient, and is better understood as four categories: 1) a metaphysical first nature; 2) a biological first nature; 3) a cultural second nature; and 4) an individual second nature.208 Further, natural law has historically held that fundamental moral principles cannot vary from culture to culture because morality is based in what is universal (first nature) not what is relative (second nature). As such, social guidelines may vary, but not deep moral issues. The problem is that our first nature is "underdetermined" in respect to morality – metaphysically and biologically we do not know how we should always act.209 By what metaphysical or biological principle do we

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206 Ibid.

207 Ibid., 203—204.

208 Ibid., 204.

209 Ibid.

appeal to know what we should wear (if anything at all!)? Because of these sorts of obscurities second nature picks up the slack and many issues of morality are determined culturally. Hence, our culture helps determine what is and is not acceptable with respect to clothing.

We can now consider the issue more fully: is human nature mutable? It depends on what is being discussed. Clearly, human second nature (cultural and individual) *is* mutable. There is a split, however, over first nature. Metaphysical first nature appears to resist change. What it *is* that makes humans ontologically human seems to be outside the scope of human manipulation. However, biological first nature is absolutely being changed by technological interventions.[210] Hence, we are feeling an uneasy "split" in our identity. Technology produced by our second nature is deliberately altering part of our first nature. The impact of this new reality is that as our biological nature changes, what is "good" for us (that is, our *telos*) will change accordingly. It is good for us to eat, only because our body needs food to achieve its ultimate ends. However, if we are able to bypass the biological need for nourishment, then eating would no longer be good for us. Because of this tension, morality will be ordered less to our natural (i.e., biological) *telos* and more so with our will.[211]

The natural law tradition is thus arriving at a crossroads of sorts. For the natural law tradition developed "an ethics for apes" it has not developed an ethic for "demigods."[212] Green sums up the issue well, technological "second nature is growing to

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[210] Ibid., 205.

[211] Ibid.

[212] Ibid., 206.

encompass biological first nature. Human nature has never been stationary; it has always been evolving, but what was once a crawl has accelerated. If action follows being, and our capacity for action has changed, then this implies that our being may have changed as well."[213]

The third issue is attempting to determine how we would *know* if human nature had changed. The issue here is not if human nature has changed over eons – it is generally accepted it has. The issue is recognizing a change in human nature that *we* bring about in short order through technological mastery. The logic for this concern is simple: "if transhumanism succeeds in changing humans, then natural law dictates that these new creatures could have different moral requirements than do current humans."[214] Different creatures have different moral requirements and ethical expectations. By looking at the human past, we may be able to see what the future holds. Biologically speaking, we are essentially the same now as we were three thousand years ago. However, culturally speaking we are vastly different. Likewise, our technological gains increase our capacity to undertake certain actions. As Green puts it, we have a "far greater potential for action than did our ancestors."[215] Transhumanists just continue this historical trajectory, but at an accelerated rate. So, how would we know if human nature changed? The answer may depend on one's "school of thought." For example, one who tends towards a more rationalist natural law theory, may find no essential difference between humans and transhumans since both exhibit rationality (which is seen as the

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[213] Ibid.

[214] Ibid.

[215] Ibid., 207.

foundation of moral action). However, one who holds to more of a physicalist natural law theory may claim that human nature has changed once they judge that a significant enough biological alteration has taken hold (this is because the body is thought to have a "normative teleology built into it").216

A fourth issue is whether cultural evolution could replace biological evolution as the primary determiner of change. As above, the answer given seems to be determined by one's school of thought. Again, a rationalist natural law theorist may not have any problem with a cultural takeover of biological evolution. The only reality that matters is rational capacity, and so long as rational capacity remains the morally relevant criteria it does just as well. On the other hand, one disposed to a physicalist natural law theory would likely deny that radically altered humans are the same as unenhanced humans on the basis of the differences in embodiment. For the physicalist natural law theorist, embodiment matters.217

A fifth issue is in how to assess the relationship of the human will to a radically altered nature. Would a human will (presumably disposed to willing what is good for an unenhanced human) be properly attuned to the ends of a new, technologically enhanced nature? As the natural disappears due to technology, the will becomes the driving force for all things. Now, natural law operates under the assumption that the "built-in natural purposes" (i.e., entelechies) of creatures are known.218 As Green puts it, being "determines action because natural being is intrinsically teleological—nature aims toward

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216 Ibid.

217 Ibid., 208.

218 Ibid., 209.

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something. If we can determine that transhumans still have a natural entelechy, then their ethics could be read from their natures, not their wills."[219] The issue, of course, is that it is not clear that a radically changed transhuman has a "natural entelechy." We have a general idea of what a "flourishing life" is for mere humans, but we are much less confident about what a "flourishing life" would be for a true transhuman. And natural law operates on the assumption that it knows what true flourishing is (or at least what its criteria is) for a particular being.[220] However, with the rise of relativism, the notion of flourishing is no longer stable. And with the denial of *telos* in the natural world, the only remaining refuge for establishing morality is in the will of the individual. The transhumanist ethic places *telos* in the will of the individual – thus, the individual determines their good. The will becomes the primary "force of nature" overtaking natural selection. The transhumanist "would create themselves in their own images" and too their own desires.[221] And because it is the individual who determines what is their good the relevant means to achieve that end is power. Power is not immoral *per se*, but when contrary wills clash, power becomes a tool for oppression. A rationalist natural law theorist may not be too troubled by such a prospect as, again, the relevant moral apparatus is still in place – rational capacity. A physicalist natural law theorist will not so easily be able to incorporate the sort of indeterminacy to which radical transhumanism aspires.

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[219] Ibid.

[220] Ibid.

[221] Ibid., 210.

The sixth and final issue is for humans to develop a dynamic ethic able to adjust to this changing landscape. As Green notes, there are three things we must do initially: 1) we need to embrace the Socratic maxim and "know ourselves" – embrace a robust anthropology that incorporates biology, psychology, anthropology, evolution, philosophy, and theology. This injunction likewise includes being familiar with history, culture, and the humanities; 2) we need to carefully consider the human *telos*. The classical Aristo-Thomistic concept of human *telos* had five elements: survival, reproduction, education, society, and truth seeking. If there is any merit to these elements, then any course of action that inhibits these elements from meeting their true fulfillment should be avoided. Further, as our mastery of technology becomes more powerful, the potential for the destructive power of our vices becomes that much more potent. All the more need, then, to carefully consider that which contributes to the human good; and 3) we need to carefully consider what it means to "sin." Traditionally, sin was understood to have two dimensions: commission and omission.[222] Now, Green takes it that with our increased technological powers we will incur greater responsibility because our capacities for responsible moral action will be proportionally expanded. For example, I am a limited being, but I know it is wrong to intentionally harm innocent persons. However, suppose I undergo a certain enhancement that allows me to make previously heretofore inaccessible conclusions. Upon reflection on my everyday actions, I determine that many actions I *thought* were innocent turn out to be highly dangerous (i.e., driving at an unsafe speed;

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[222] Sins of commission were those that were actively perpetrated – theft is the active taking of someone else's property, lying is the active deception of another, murder is the active taking of an innocent life, etc. Sins of omission were those that were passively allowed – people died because I did not warn them of impending doom, a burglary was allowed because I did not call the cops even though I could have, etc.

releasing toxins into the air; using certain types of plastics; etc.). Because I would now know the effects of these actions, I would be *more* morally culpable for engaging in those activities than I would be previously. Likewise, sins of omission carry greater weight as well, for presumably, our enhanced abilities will give us the moral clarity to act. Hence, inaction would carry a greater consequence.[223]

5.5 Conclusion: An Agency of Relational Responsibility (ARR)

What this chapter has set out to accomplish is show the different elements that contribute to a holistic discussion of human good and right action. We are relational, responsible, agents. Our lives and actions must be considered in their context as operative within a web of various agents with their own goals, desires, and dignity. The various strings of thought are not easily untangled, but to the degree that we can accurately account for these various conditions, the more readily we can be said to have taken into account the full range of moral criteria. The challenge within the enhancement debate is that morality is very much rooted in *what* we are, but the radical forms of enhancement will alter the very *whatness* of humans. The result is that this *will* give rise to a different conception of morality reflective of the types of beings that will emerge.

ARR has an advantage in understanding human beings as persons. In traditional Christian thought there is a unity to reality. There may be contrary ways of viewing truth, but there cannot be contrary "truths." When applied to the moral realm, Tristram Englehardt rightly comments that for "the traditional Christian, any seeming tension between the right and the good, as well as among goods, can ultimately be discounted. . .

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[223] Ibid., 211—212.

. there will not be a tension between the right and the good, between moral obligations generally considered and run the true good of be achieved by loving God and others as oneself."[224] There is a holistic view to reality that Christianity embraces. While Christians may not succeed in accounting for all of the details, there is a general desire to embrace reality in all of its diversity and give each aspect of reality its due. And all of this is taken under consideration for the goal of implementing it into a robust account of reality.[225] When we act as moral agents with an understanding that we are related to various levels of reality (i.e., God, others, and ourselves), then the relevancy of responsibility is impressed upon us. All acts of responsibility are acts of response to some relational reality. For the Christian, we are responsible to ourselves, because we are responsible to others, and this is because we are ultimately responsible to God. God is the primary reality in which we are responsible and all of our actions should be in light of that.[226] Because of this recognition that our actions are ultimately performed in service to God, Christians trust that the grace that God grants is sufficient for meeting our responsibility to others.[227] An agency of relational responsibility recognizes our various relationships and acts accordingly to the situation at hand. Thus, the advantage of ARR for human persons is that it accounts for their lived reality and directs them to respond accordingly.

Likewise, ARR has an advantage over "personhood only" approaches to morality. Specifically, the "personhood only" approach adopted by many transhumanists shows

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[224] Englehardt, Jr. *The Foundations of Christian Bioethics*, 78.

[225] James C. Peterson, *Changing Human Nature: Ecology, Ethics, Genes, and God* (Grand Rapids, MI: William B. Eerdmans Pub., 2010), 147.

[226] Wannenwetsch, "'Responsible Living' or 'Responsible Self'?": 139.

[227] Ibid.: 140.

contempt for human frailty and believe there is no value in suffering.228 However, this

push has the side-effect of inhibiting moral growth in the person. It is by hardships (often

brought about by an embodied experience) that we learn and grow – we grow when we

experience difficulty, not when we wallow in pleasure.229 ARR accounts for the reality of

hardship by not minimizing struggle and pain derived from an embodied existence. And

it does this even while trying to eliminate suffering at many levels. ARR finds purpose in

embodied pain – it does not minimize it. Nor does it fear alleviating pain and suffering.

Rather it seeks to act accordingly to the situation – that is, the agent wants to act

responsibly given the variety of relationships involved – an *agency of relational

responsibility*.230 The problem with much of the transhumanist push to consider

"personhood only" according to Christian thought, is that it attempts to deny "the

goodness of God's providence."231 There is something important to embodied living, but

in the rush of many transhumanists to leave the body behind and treat people as only

rational beings, we miss the importance of embodied existence for our moral

development. ARR takes into account this embodied reality. "Personhood only" limits

moral reality to only one dimension – the rational. ARR avoids this unnecessary

reductionism.

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228 Lake, *Prophets of the Posthuman*, 95.

229 Ibid., 69.

230 Amy Michelle DeBaets, "Rapture of the Geeks: Singularitarianism, Feminism, and the Yearning for Transcendence," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 193.

231 Green, "Transhumanism and Catholic Natural Law," 211.

Further, ARR has an advantage over "human nature only" approaches to morality. Affirming the necessity of a relational and embodied experience, implies that something about *being* human matters for moral reflection. However, there is also something to be said for affirming that moral principles extend beyond just immediate human concerns. Indeed, as moral beings we can reflect and apply principles beyond human needs. We can fulfill obligations placed upon us by unnamed future humans, other persons, and even non-persons.[232] As such, a morality based on "personhood only" is detached from its ontological moorings, but a morality of "human nature only" seems incapable of applying to beings that are not human. This is the gap that ARR fills. While it is largely based off of human nature, it can be applied to different beings. As ARR stresses relationality, different beings (human, non-human, and posthuman) can benefit from these insights. Likewise, the insistence that agents be responsible to others before God, limits what types of actions are acceptable. What needs to be remembered is that the objects to which we have an ultimate moral responsibility are to individuals, not to a species. The "focus of moral concern is always individuals."[233]

5.5.1 A Key Objection to ARR: Is this Not Just "Virtue Theory"?

The main criticism for ARR is this: how is it significantly different than just virtue theory? There are substantial similarities in how these two systems function and what they propose to achieve. For example, virtue theory is ultimately concerned with character development in pursuit of flourishing. ARR has similar concerns – it is

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[232] Peterson, *Changing Human Nature*, 148.

[233] Bernard E. Rollin, "Telos, Value, and Genetic Engineering," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 326.

concerned with the relational actions an agent takes in response to their environment. But it would seem that an agent responding appropriately to the situation would just be another way of saying that they need to act virtuously – which, of course, is just virtue theory.

In reply it should be acknowledged that there are definite similarities between virtue theory and ARR – they share a similar metaphysic, so they should share *some* likeness. The difference comes in what is being stressed. ARR highlights the relational aspect of agents and responsibility to the *other*. Virtue theory – while not ignoring the other – stresses what is good for the agent. This is one of the major criticisms that Nicholas Wolterstorff (following Augustine) makes of virtue theory.[234] ARR, while not overthrowing virtue theory, makes a significant correction in what is emphasized – the good owed to the other. And it is in this distinction that ARR can stand on its own as a theory of moral accountability.

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[234] Nicholas Wolterstorff, *Justice: Rights and Wrongs* (Princeton, NJ: Princeton University Press, 2008), 177. Technically, Wolterstorff is addressing eudaimonism, but this is often seen to be an extension of virtue theory.

Chapter 6

Proposing a Theological Hermeneutic for Enhancement Technology

The question for any technology is: How can we develop this best to love God,
our neighbors, and the earth entrusted to us?
— James C. Peterson, *Changing Human Nature*, 52

Given the enduring characteristics of human life, the increased power given by
new technology will *require* greater care with making those choices if societies
are to thrive. . . . Godlike powers will not make us gods, let alone God.
— Charles T. Rubin, *Eclipse of Man*, 118.

6.1 Introduction

For modern transhumanists, technology is merely a tool – it is a neutral endeavor.

Technology allows us to better achieve our deepest desires, and as such our technology is

as varied as our preferences. Thus, to achieve any given ends all one need to do is "apply

the proper ethics and politics" to the technology to achieve what is desired.[1] But this is to

introduce the precise problem of *which* ethics is really proper? That is, is there

hermeneutic for evaluating enhancement technologies?

In order to provide a workable hermeneutic, this project has examined both the

ontological and moral foundations for what it means to be a human person – that is, a

relationally responsible agent. And it is from this foundation that we can now begin to

construct a hermeneutic of enhancement, since these starting points will both limit and

guide what is and is not acceptable for human persons. Yet, there are just a few

preliminaries that must be addressed before constructing our hermeneutic. For the real

issue is *which* enhancements should be pursued, not whether we should pursue

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[1] Jeffry P. Bishop, "Transhumanism, Metaphysics, and the Posthuman God," *Journal of Medicine and Philosophy* 35 (2010): 707.

enhancements. The hermeneutic to be developed in this chapter is designed to help us

make that determination – *which* enhancements to pursue.

6.2 The Problem of Limited Categories

Nicholas Agar notes that the choice is not about "whether to accept or reject the

goods enabled by the radical enhancement of our cognitive or physical capacities. Rather,

it's about whether we should internalize or externalize radical enhancement."[2]

Enhancements are happening, some just happen to be more profound than others. The

issue is not whether to enhance or not, but *which* enhancements are we going to pursue.

The issue is the degree of enhancement, not whether it is genetic or not.[3] And it is

because of these realities, that a traditional "pros and cons" approach to evaluating

enhancement is simply insufficient for determining what enhancements to pursue or not,

even though taking stock of what is good and bad about an enhancement is certainly *part*

of the discussion. It just cannot be left at that, however. Likewise, given the realities of

technological advancement, there is a practical impossibility in abstaining from

technology. Modern humanity *cannot* avoid being a technological creature – technology

shapes nearly every aspect of our modern lives. One cannot absolve themselves from the

discussion. As such, is it even appropriate to claim that some people are "pro"

enhancement and others are "anti" enhancement? There is something to be said that

everyone is in a sense *for* enhancement, and there is something to be said for the fact that

not everyone is as enthusiastic as others about the future of enhancement technology.

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[2] Nicholas Agar, *Truly Human Enhancement: A Philosophical Defense of Limits* (Cambridge, MA: The MIT Press, 2014), 50.

[3] Ibid., 138.

What *does* seem to be the case, however, is that there can be agreement that the key issue to focus on is *which* enhancements should be pursued – *which* technologies may prove beneficial for humanity – *not whether* we should pursue some technology or enhancement.

Enhancement technologies are too commonplace and becoming too complex to be addressed simply as being "for" or "against."[4] The issue then is how to shape the future of enhancement tech, *not* whether to participate in it.[5] Buchanan takes it that the argument *is* conclusive in favor of accepting certain enhancement tech.[6] For Buchanan, humans are limited beings that need to be enhanced in order to address mounting challenges in the near future. Indeed, Buchanan is arguing for straight-up enhancement, not just therapeutic technologies – as there is no technological distinction.[7] So, just as there is no clear line between therapy and enhancement, there cannot be a clear line between being "pro" or "anti" enhancement.

There is an interesting implication of allowing therapeutic / enhancement technologies to infiltrate society. As discussed in chapters 3 and 4, human abilities fall within a range – there is no precise, focused, ability. Human abilities resemble a bell curve, not a point. Now, should those persons on the low-end of the ability scale receive remedial (i.e., therapeutic) treatment to raise their abilities to the statistical average, the

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[4] Buchanan, *Beyond Humanity?: The Ethics of Biomedical Enhancement* (Oxford, UK: Oxford University Press, 2011), 11.

[5] Ibid.

[6] Ibid., 58.

[7] James C. Peterson, *Changing Human Nature: Ecology, Ethics, Genes, and God* (Grand Rapids, MI: William B. Eerdmans Pub., 2010), 125.

result is that the bell curve shifts, but it does not disappear. In other words, with the elimination of weakness and the pervasiveness of excellence, the general ability will increase for all humans. The result is that what was once considered an "enhancement" would become considered commonplace.[8] If this is the case, then making a "pros" and "cons" case for enhancement is almost quite beside the point, for *any* technological engagement will result in an overall increase in human capacities – at least considered in the narrow sense of that technology.

Because of this reality, Allenby and Sarewitz remark that the "pros" and "cons" debate regarding enhancement is "desperately impoverished" and "beside the point." In order to understand human beings and the technology they create, it is imperative to understand the system as a whole, not just some particular technology. Humans create and are affected by the technology they produce. It is thus, quite inappropriate, to isolate one given technology in a simple "pros" and "cons" tit-for-tat *as if* that were sufficient to understand the import of the entire debate or of that specific technology.[9]

There is a dilemma of sorts that enhancement introduces: "the external goods of radical enhancement could be so valuable that it seems absurd to worry about the low intrinsic value of the activities that generate them."[10] The dilemma then is this: reject the enhancement and the external goods it provides, but (perhaps) retain some intrinsic goods

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[8] Peterson remarks that "if all individuals are cured to the 'usual efficiency of one's class,' some individuals will naturally be better off than average and the average will consequently rise. Human abilities fall in ranges. If everyone at the lower end of the typical range is brought up to the midpoint in the range, the midpoint of the range will rise. . . . Over time, what was once considered enhancement beyond species-typical functioning would become cure to reach the raised typical level." Ibid., 110.

[9] Braden Allenby and Daniel Sarewitz, *The Techno-Human Condition* (Cambridge, MA: The MIT Press, 2011), 83.

[10] Agar, *Truly Human Enhancement*, 44.

by not enhancing; or accept the enhancement and the external goods it provides, but (perhaps) lose some intrinsic goods by enhancing. In other words, some see two options – enhance or not. If the enhancement has a high instrumental value with better external goods, coupled with a loss of low intrinsically valued goods, then enhancement makes a certain amount of sense. However, if the enhancement has a low instrumental value with less external goods, with the loss of higher intrinsically valued goods, then enhancement makes little to no sense.[11] In the former case, the external goods gained by enhancement overshadow the intrinsic values lost. In the latter case, the internal goods retained overshadow the proposed external goods gained by the enhancement.

However, these notions of goods lost or goods gained assume some knowledge of what is really "good" for the person. That is, the "good" can also be understood as what allows the person to "flourish," and the concept of human flourishing operates in the background of many ethicists. Aristotle and Aquinas, for example, see flourishing as just another way of describing human happiness which is the end of the human being. Thus, our end is determined by the types of beings we are – what we are determines what is good for us, what leads to our happiness / flourishing.

There is a real sense in which it is truly impossible to be either "for or against" enhancement technologies, *per se*. There are three reasons for this: first, as limited beings we need enhancement; second, being against enhancement is problematic; and finally, being wholly for any and all "enhancements" is, likewise, problematic. What is needed is neither a blind acceptance of all new technologies, nor a blanket rejection of technology but a moderate evaluation of a given technology. Which is, of course, no easy task.

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[11] Ibid., 45.

Humans must alter their environment to survive. We must create tools that aid in our survival, but those tools in turn shape us.[12] But it is not just survival that encourages our drive for enhancement technologies, we also treasure certain goods that could be lost without the development of certain enhancements.[13] Buchanan remarks, that to "avoid losing some of the good things we now enjoy, we will have to enhance ourselves in particular ways."[14]

Critics of enhancement rightly note that the same techniques that can cure disease can slide toward a new-eugenics (if you will). Both "pro" and "anti" enhancement sides agree that there is no clear distinction between therapy and enhancement, and thus this cannot be used as the criteria to determine which techniques are acceptable and which are not. However, it is this increasing of ability based on technological advancement that allows the transhumanist to imagine new and "novel capacities" for human beings.[15] The promise of these new capacities drives the techno-enthusiast.

On the other hand, is it not reasonable to fear what our technologies have the potential to do?[16] Indeed, the strength of the "bio-conservative" movement is the

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[12] Peterson, *Changing Human Nature*, 54—55.

[13] To use a mundane example, we take photographs to help us remember special moments that our own memories can distort or forget. Photographs also allow us to "share" memories with others and preserve memories for family and friends. In other words, photography helps us to preserve the good of memory in our lives.

[14] Buchanan, *Beyond Humanity?*, 163.

[15] Charles T. Rubin, *Eclipse of Man: Human Extinction and the Meaning of Progress* (New York: New Atlantis Books, 2014), 124. Rubin adds, "Indeed, the more one thinks about how much better we could do if we designed our own bodies, the more dissatisfied we are likely to be with the present model." Ibid.

[16] Christina Bieber Lake, *Prophets of the Posthuman: American Fiction, Biotechnology, and the Ethics of Personhood* (Notre Dame, IL: University of Notre Dame Press, 2013), 111.

emphasis on enjoying the goods we currently possess and not threatening the existence of those goods.[17] Should some technology have the potential to endanger our most cherished goods – even if that technology produces some real tangible benefits – then wisdom dictates that we should forgo that technology.

Yet, there is a major problem with this line of thinking: human beings are insatiably led to cross boundaries – terrestrial, spatial, moral, genetic, and technological. As such, Buchanan notes that because enhancement has great social benefits it will be pursued anyway – so why not attempt to regulate it? Likewise, it needs to be controlled for social justice – for example, Buchanan desires to mitigate the disparity of enhancement technology. Finally, it can help avoid inappropriate medicalization.[18] The stress on human autonomy is a foundational pillar of the modern transhumanist movement. But enhancements will not be left at the individual level. No, the simple fact of the matter is, that the country / civilization that can best harness enhancement technology is the one that "will gain a huge economic and military advantage over everyone else."[19] Indeed, the only way to guarantee enhancement technology does not end up in the "wrong" hands is to make sure that the "right" hands are always one step ahead of deleterious operators.[20] And it is for these reasons why enhancement is needed, and cannot be avoided.

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[17] Buchanan, *Beyond Humanity?*, 164.

[18] Ibid., 18.

[19] Rubin, *Eclipse of Man*, 91.

[20] Ibid., 97.

Gilbert Meileander remarks that critics of transhumanism cannot simply oppose all advances in scientific medicine, since modern medicine thrives on innovation.[21] In looking at the arguments against enhancement, Buchanan identifies what he calls the "Simple Conservative Argument" in which the opponent to enhancement simply states that the potential risks to enhancement are too much.[22] To this, Buchanan replies that the critic offers no alternative and no guidance. Likewise, he points out that the critic makes the "dubious" assumption that certain enhancements actually *are* "risky." The term "risky" is left vague, and even if it is not, we endeavor in other "risky" behaviors too (i.e., nuclear power; space flight; etc.). So, "risk" cannot be a sufficient reason to *not* pursue some technologies *per se*. Finally, this approach assumes that we do not *need* certain enhancements.[23] Given how frail the human species is, Buchanan thinks we will *need* enhancements and he doubts we will survive *without* them.

By way of response, some version of the Precautionary Principle is often put forward as a helpful heuristic when discussing enhancement issues. In general, the Precautionary Principle says if there are rising threats to humans or the environment, then some "precautionary" measures must be taken to alleviate or eliminate the threat. This could mean taking some positive action to counter the threat, or it could mean the cessation of any action that may be perceived to be a threat. The key idea is that any harms that are the result of human (in)activity should be avoided.[24] This, of course, is an

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[21] Gilbert Meilaender, *Bioethics: A Primer for Christians* (Grand Rapids, MI: William B. Eerdmans, 1996), 5.

[22] Buchanan, *Beyond Humanity?*, 55.

[23] Ibid.

[24] Ibid., 200—201. Daniel McFee makes the argument, see his "The Risks of Transhumanism: Religious Engagements with the Precautionary and Proactionary Principles," in *Religion and*

extraordinarily vague notion as it does not define what "harm" means, nor does it account for the fact that some goods may actually outweigh some harms that may result. A better approach to the Precautionary Principle may say that one should "choose that option with the best worst outcome" – pick the path with the least expected harm or damage.[25] While this may be a helpful notion, it too ultimately succumbs to the flaw that it is not always possible to either gauge all of the possible negative effects of some action, nor does it alleviate the possibility of allowing some harms to gain certain goods. As Buchanan notes, even under its "maximum" interpretation, the Precautionary Principle overstates our ignorance and understates the fact our knowledge base is growing in regards to certain enhancement technologies.[26] Indeed, Buchanan prefers a multi-pronged approach to considering possible dangers from enhancements rather than seeking one single risk-adverse heuristic. While I think Buchanan is correct that multiple heuristics will need to be investigated, I still find the general impulse toward caution a necessary component to evaluating the enhancement landscape.[27]

Just as there is a problem with being inherently "anti" enhancement, there is also a problem with attempting to be inherently "pro" enhancement. As Michael Burdett puts it, technology is not necessarily a progressive endeavor – that is, technology does not "drive history." Any bent towards technological determinism – the view that technology necessarily arcs forward – tends to forget other factors that influence that technology. Put

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Transhumanism: The Unknown Future of Human Enhancement, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 217—228.

[25] Buchanan, *Beyond Humanity?*, 201.

[26] Ibid., 202.

[27] This is not to imply that Buchanan does not think this – he does.

simply, "it is a questionable venture to assert technological determinism and then move to social dictation because of the asserted technological determinism."[28]

Allenby and Sarewitz say we can make two predictions with high confidence about enhancement technologies. The first is that the primary beneficiaries of technological enhancement will be institutions – not individuals. That is, the primary "drivers for enhancement" will be "economic efficiency," a competitive military, and "cultural dominance." Transhumanists often highlight the benefits technology will have for individuals, but the technology will be coopted first by groups, not individuals. The second prediction they make is that enhancements will not be viewed in isolation from others. There is a tendency to consider only one dimension of a given enhancement and neglect the impact it has on other facets of life.[29]

To highlight one aspect of this criticism – the notion that technology primarily benefits individuals. As just noted, this is likely to *not* be the case. Institutions (especially military ones) are likely to reap the "benefits" of the earliest advances in enhancements. Today's soldiers are already the first persons who benefit from advanced technology. Countries have a vested interest in protecting their societies at a basic level, and this means giving the military *every advantage* over competing countries. The impact on the individual should begin to become clearer – the goals of the military may have little to do with the goals of individuals. Better (i.e., more efficient) soldiers, who require less "class

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[28] Michael S. Burdett, "The Religion of Technology: Transhumanism and the Myth of Progress," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 144.

[29] For example, the automobile was seen as a way to move (relatively) quickly from point A to point B, but it had the impact of creating suburbs, vacations, road systems, etc. As such, one technology in one area invariably affects and is affected by other technologies and other areas in a complex system of give-and-take. Allenby and Sarewitz, *The Techno-Human Condition*, 28—29.

room" education, who can better adapt to situations better, work with a squad more efficiently, etc. Basically, the military will want to enhance soldiers, not for the enrichment of the soldier's lives, but so that they have a more efficient killing machine.[30] As such, in the same way one cannot be wholly anti-enhancement, neither should one be wholly pro-enhancement.

6.3 The Spectrums of Enhancement

One thing should be clear by this point in the project: enhancements are not "black and white" issues. What *is* and *is not* an enhancement or therapy is hotly disputed. Sometimes, one type of procedure is clearly a therapy and other times it is clearly an enhancement, but many times this distinction is muddled. As such, it is best to view the therapy-enhancement distinction as existing on a spectrum rather than as a simply binary choice. Some techniques can fall into the therapy camp rather comfortably and others in the enhancement camp without much controversy, but a whole host of issues seem to fluctuate between these two poles. In order to evaluate these cases we can consider them along two different spectrums: the "objective" spectrum; and the "moral" spectrum. Below we will examine these two spectrums and show how they can be useful for evaluating different enhancements.

6.3.1 The Objective Spectrum of Enhancement: "Mundane" to "Extreme"

The "objective" spectrum deals specifically with *what* a given technological procedure is doing. This particular examination is unconcerned with the morality of the procedure. It is only concerned with examining the procedure at a technical level – *what*

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[30] Ibid., 24.

is happening? To properly evaluate the objective level, we will explore the spectrum from "mundane" to "extreme" technologies and why I have labeled them as such.[31] The second area to explore is to note the various "levels" of technology that are introduced by our general technological advancement. Again, this is not making a moral judgment call so much as it provides background information that will come into play when we examine the moral spectrum in the next section.

6.3.1.1 The "Mundane" to "Extreme"

For this project, "mundane" is understood as enhancements that indirectly affect the person physically or psychologically to greater or lesser degrees – but affect the person nonetheless. Likewise, "extreme" is taken to mean a direct change to some physical or psychological characteristic of the person. It is recognized that there is no set "barrier" that separates the mundane to extreme. This is more of a grayscale than a dividing line. However, this spectrum operates off the notion that some enhancements more directly affect who we are than others. Figure 6.1 is taken as representative of this idea that some

Figure 6.1

Severity	Technology Types	Relation to Humans
Mundane	Agriculture	Indirect
	Shelter / Clothing	
	Transportation	
	Data Management	
	Sensory Correction	Indirect or Direct
	Prosthetics / Cybernetics	Indirect and Direct
	Pharmaceuticals	Direct
	Surgery	
Extreme	Genetic Manipulation	

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[31] Please note, that given the nature of the case I have tried to be as fair as I can, but I readily admit that distinguishing between some techniques reflects more of a judgment call rather than strict objectivity – however, I have attempted to justify my judgments by providing a principle by which I measure one technology as being more mundane or extreme over another.

enhancements are more mundane or extreme than others.32

Notice that in Figure 6.1 the "Severity" column refers to the "mundane / extreme" spectrum. It recognizes that there are not necessarily clean breaks from between the two ends. The "Technology Types" column is taken to be representative of a number of different types of technologies that can be rightly said to "enhance" human lives. However, it should be stated that this is only a place holder and not taken to be absolute.33 But as James Peterson remarks, "When an intervention is irreversible [like germ-line genetic manipulation], one should be dramatically more certain of its use."34 As such, the very fact that some changes are irreversible and direct would indicate that it is a more "extreme" technique.

The third column is "Relation to Humans" and it is this column that has largely determined the severity of the given technology. The more remote and indirect the technology is in affecting the human person, the more mundane it is being labeled.35

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32 No doubt, exceptions or challenges to this chart are possible and it is certainly liable to change. However, it does offer a glimpse as to how a distinction between mundane and extreme enhancements can be made.

33 For example, I have genetic manipulation listed as the last (and most extreme) of the technologies for the sole reason that we are using technology to change us directly at the genetic level. Now, it is recognized that not all genetic enhancement is the same – somatic and germ-line interventions do not need to carry the same burden of impact. As such, some genetic enhancements may more appropriately be moved up the ladder to a more mundane understanding. Buchanan notes five "realistic" modes of biomedical enhancement: embryo selection; genetic engineering of the embryo; drug administration; genetically altered tissue / organs; and brain / computer interfaces. Each of these modes of enhancement fall under the more extreme end of the enhancement spectrum as each of these make direct changes to the human person to greater or lesser degrees. Buchanan, *Beyond Humanity?*, 25.

34 Peterson, *Changing Human Nature*, 193.

35 Buchanan makes this distinction between external and internal enhancements, which is a different way of saying the same thing I have in this chart. For Buchanan, literacy, numeracy, agriculture, and social institutions are all external enhancements that have drastically affected us internally. To this he would add computers and culture. As he says, "External or environmental innovations can change us profoundly." Buchanan, *Beyond Humanity?*, 39. Hence, agriculture, clothing, transportation, and data management are all indirect (though important!) ways humans are enhanced beings. These technologies highlight that we are a tool using species. Nevertheless, these technologies, though they greatly affect us, only affect us indirectly at a physical level. The second stage is direct or indirect intervention in the issue of

Genetic manipulation changes the fundamental physical makeup of the person and, hence, is considered the most extreme of the enhancements on this list.36 Again, this is not meant to be taken as a comprehensive, complete, or otherwise immutable table of how enhancement technology should be viewed, but it helps to categorize the spectrum of mundane to extreme enhancements.

Buchanan argues that the issue is not whether some given enhancement is "reversible" or not.37 As such, the issue cannot be tied to the reversibility of certain enhancement procedures – say, reversing a prosthetic or cybernetic implant. Thus, he says, the "reversibility" of genetic manipulation, surgery, or any other therapeutic or enhancement technology is simply beside the point.38 I take the opposite viewpoint, the irreversibility of some genetic manipulation is precisely the point of what makes a technology "extreme."

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sensory correction. For example, one may use glasses to correct vision or one could have lasik surgery. Glasses are an indirect correction and lasik would be a direct correction. Prosthetic limbs (and the ever growing cybernetic field) utilize non-organic tools and interface it directly with the body. The last area of consideration is direct technological intervention. Drugs affect the body directly, but are generally temporary enhancements. Acetaminophen may stop a headache, but its effects are temporary. Likewise, surgery to repair, remove, or otherwise correct damaged body parts directly affects the human person, but only at a gross anatomy level.

36 Buchanan takes it that what I have labeled "indirect" enhancements have actually changed humanity in more important and lasting ways than any implanted computer chip could. In other words, Buchanan takes it that these indirect / external technologies have been, in a sense, more extreme than any direct enhancement technology. While I agree with Buchanan that many indirect technologies have irreversibly enhanced us (for the better!) I simply disagree with his judgment that agriculture "affects us more deeply" than direct technological engagement with the human person. It is agreed that agriculture has broadly and significantly changed how humans live, but even in this change what it means to *be* human is left largely untouched. However, once the cybernetic and genetic revolution takes hold, what it means to be *human* is the issue at stake. Ibid., 40.

37 Ibid., 40.

38 Ibid., 40—41.

6.3.1.2 Three "Levels" of Technology

Allenby and Sarewitz note that there are three levels of technology. At Level I we attempt to solve some perceived problem. Hence, humans get sick from some disease and so we develop some antibiotic to counter said disease. Level I technologies are the immediate measures taken to solve a perceived and specific problem. It is at this level most of the transhumanist debate takes place. Most arguments revolve around how some particular technology can affect our lives. These technologies tend to be reliable at solving the immediate problem under consideration. At Level II, we must address the systematic complexity introduced by that technology. At this level we know there will be unpredictable events and we can relatively prepare for their eventuality.[39] Basically, at Level II, complexity can anticipated but not predicted. We can somewhat prepare to alleviate these problems, but make no mistake, these problems arose *because* we created the Level I technology.

What we observe is that Level I technology gives rise to Level II issues. Whatever complexity that arises at Level II is based on what is wrought at Level I. This is commonly known as the problem of "unintended consequences" and it plagues *all* examples of emergent technology. Humans are intelligent creatures, but we are hardly omniscient and thus we cannot see all possible ends. Further, technology is not developed in isolation. Technologies interact with other technologies as well as cultures and

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[39] For example, airplanes are strictly a Level I technology – they move people and goods from point A to point B quickly and efficiently. However, this gives rise to issues at Level II. For example, weather can delay flights. Strong turbulence can damage passengers and cargo. Overbooked flights can throw some people off their schedules. Economic events may make the price of flying impractical for the common person. Each of these events may be expected, but cannot be predicted. We make planes so they do not rip apart at the first sign of turbulence, but that does not mean we know when any particular bout of turbulence will occur. We can generally predict severe weather within a few days, but not any particular snow and ice storm that could delay flights.

societies. Not to mention that unexpected human use of technology outside its original intention stresses and molds technology in unexpected ways.40

By distinguishing Level I from Level II technologies we can now think of the transhumanist issue in an alternate way. Most proponents address enhancement technology along Level I lines. Transhumanists highlight *what* a new and exciting technology can offer us for a specific condition. These are great for determining "specific and identifiable goals" (i.e., cognitive enhancement; longer life-spans; etc.). Detractors to enhancement, however, often address Level II concerns – i.e., "enhancement *x* may be great, *but* how will that affect persons *p*?" As such, Allenby and Sarewitz see both transhumanists and their critics as talking past each other. Both concerns are valid, and both concerns do not address the other's points. However, it is necessary to bring these two viewpoints into conversation. And for Allenby and Sarewitz, they are convinced that any such discussion would ultimately be symbiotic. Any non-trivial technology should affect both Level I and II in reinforcing ways. The problem for transhumanists and their critics is that they often do not engage each other beyond "simplistic, anachronistic, and contradictory conceptual frameworks." This situation must change for real dialog to take place.41 The seduction of Level I activity is quite obvious: there is a problem and we look for a solution. There is a disease that needs to be cured, so we search for an effective vaccine. Level I technologies meet "specific and well-defined social goals." Level II

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40 Allenby and Sarewitz, *The Techno-Human Condition*, 38—39.

41 Ibid., 61.

technologies on the other hand are messy and unclear – there is very little precision involved even if "broad brush-strokes" are possible.[42]

This brings us to Level III technology which operates at the complex "Earth system" level. At this stage, the realities involved are too complex to predict or even expect. We often simply react to the changes at this point. As Allenby and Sarewitz note, Level III is "a complex, constantly changing and adapting system in which human, built, and natural elements interact in ways that produce emergent behaviors which may be difficult to perceive, much less understand and manage."[43] Level III systems simply resist any type of predictive analysis. Allenby and Sarewitz comment that at this level all that can be expressed is a type of existential despair. As they put it, at "this level, it's not just that you can't handle the truth; it's that you can't even grasp it; it's too complex to be given in forms (ideology, scientific models, traditional values) that you can process."[44] Level III systems defy our attempts to control it.[45]

Allenby and Sarewitz lament the technological discussions making the rounds today, since few are acknowledging these different levels of technological engagement.

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[42] Ibid., 63.

[43] Ibid.

[44] Ibid., 64.

[45] To use the airline example once more – at Level I are the technologies that specifically allow us to fly from point A to point B. At Level II are the technologies that help prepare for, but not specifically prevent or avoid turbulence, bad weather, traffic delays, etc. However, at Level III we are dealing with the effects that air travel exerts on society itself: world leaders make "short" trips across the globe rather than months-long voyages as necessitated in years past; it was revealed that some people have a sever phobia of flying; the airplane transformed modern travel and warfare and introduced us to the space age; etc. Despite our best efforts, we have been thoroughly unable to predict when and how these types of activities would affect us at a global level. There may have been some early prognostication about the possibility of simple travel by air, but now we can move hundreds of people and several tons of supplies via aircraft. The world could not and did not predict these sorts of activities when Orville and Wilbur Wright first took flight at Kitty Hawk. Yet, within a few decades we were sending people to the moon.

As such, they see the discussion devolving "into fruitless dichotomized conflict." By not recognizing these various levels of technology, the conversation has become confused. Conflict abounds because complexity is being discussed at different levels. The complexity at Level I is not the same as that at Level II, and the concerns at Level II are often of little consequence at Level I. And Level III technology is often simply ignored due to its overwhelming complexity and unpredictability. Nevertheless, it is imperative for interlocutors to recognize and address the concerns at each particular level and resist mixing categories.[46]

6.3.2 The Moral Spectrum of Enhancement: "Moderate" to "Radical"

Just as there is an objective spectrum of technology, there is also a moral spectrum. Some technologies seem less problematic than others. The major advantage that the objective spectrum has is that it is indeed, to some degree "objective." There are measurable aspects on which debate can proceed. The major drawback to the moral spectrum is that it is largely "subjective" and dependent on one's worldview and cultural values. As such, some technology x may be deemed moral by one society, but devious by another. Nevertheless, I maintain that it is possible to provide a workable moral spectrum of evaluation, but I readily admit that the spectrum of value defended here is based in my philosophical, theological, and cultural positioning.

Moral evaluation of enhancement technology is critical, because it is easy to shift from explaining how technology is used "to express our choices to using it to guide our

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[46] Ibid., 65.

choices."[47] Moral evaluation cannot be avoided, for whether one is arguing *for* or *against* any given enhancement, they implicitly or explicitly tie moral recommendations to their advocacy.

To address the moral spectrum, I will adopt Agar's terminology as discussed previously. Thus, "moderate" enhancement will refer to technologies that are either morally acceptable or at least relatively uncontroversial – "moderate" enhancements will be understood to have widespread appeal. "Radical" enhancements will imply a moral rejection of the enhancement. These types of technologies will be deemed too morally repulsive to be ethically pursued.[48] Again, just as there is a range of possibilities for objective enhancements, so too is there a range of reactions for moral enhancements. As such, the "mundane" to "radical" designation is only occasionally clear, and often times muddled. So the obvious question then becomes: why even use the designations at all? The answer is that being able to designate a given technology as either "moderate" or "radical" (however, difficult it may be to do so) gives a moral legitimacy or curtailment of that technique. *If* it is possible label a given procedure as "moderate" then there should be little controversy about its use. However, *if* one is able to label a given procedure as "radical" then this would provide the impetus to forgo implementing such a technique.

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[47] Rubin, *Eclipse of Man*, 84. Rubin is specifically referring to Ray Kurzweil's shifts in what technology does, but I think the larger point stands in regard to most transhumanists.

[48] For example, the use of acetaminophen to help alleviate headaches is a relatively uncontroversial pharmaceutical therapy – doctors prescribe this all of the time and sometimes as a preventative measure. As such, this would be deemed a "moderate" enhancement. It attempts to relieve pain *before* its onset. While there may be some people unwilling to ingest any pharmaceuticals, the vast majority of persons seem willing to engage in this activity, especially given the benefits it produces. On the other hand, undergoing some cybernetic surgery to replace or enhance appendages may have the undesirable effect of making one a social outcast or (more dramatically) socially dangerous. Such types of proposed enhancements may be given the term "radical" due to their undesirable side-effects.

The difficulty, of course, is determining what is / is not either a "moderate" or a "radical" enhancement.

When we incorporate the "moderate" and "radical" spectrum, Figure 6.1 is then further completed by Figure 6.2. Note that the last three columns are labeled "Moderate", "Potentially Moderate", and "Potentially Radical". For the "Moderate" column notice that all "Indirect" technologies are considered moderate, but technologies that have both a direct and / or indirect component and some that have a direct impact are normally (but not always) considered moderate technologies. Only extreme and direct techniques cannot be labeled as unquestioned moderate technologies. However, upon considering the final two columns, "Potentially Moderate" and "Potentially Radical", we see that the same techniques could be considered as either one or the other. Both cannot be considered under indirect technologies otherwise they would just *be* "Moderate". Thus, we must examine the specific technology to determine if it could be considered "Potentially Moderate" or "Potentially Radical". Should an extreme technique be judged as "Potentially Moderate" then further development of that technique would be warranted. If, however, it is judged as

Figure 6.2

Severity	Technology	Relation to Humans	Moderate	Potentially Moderate	Potentially Radical
Mundane	Agriculture	Indirect		■	■
	Shelter / Clothing			■	■
	Transportation			■	■
	Data Management			■	■
	Sensory Correction	Indirect or Direct	▓	▓	▓
	Prosthetics / Cybernetics	Indirect and Direct	▓	▓	▓
	Pharmaceuticals	Direct	▓	▓	▓
	Surgery		▓	▓	▓
Extreme	Genetic Manipulation		■	▓	▓

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potentially radical then the wise course of action would be to either cease development or modify it so that it could be considered as "Potentially Moderate".

6.4 Principles Towards a Hermeneutic of Enhancement

It is commonly thought that if some technology can make our lives more enjoyable and our work more efficient, then that technology is "good." This belief is not irrational. However, it must also be acknowledged that some technologies (especially biomedical ones) are thoroughly "value laden." As such, the technology can only be judged against the backdrop of a worldview and examined accordingly.[49] From a Christian perspective, humans are first and foremost beings responsible to God. Any improvements to human life should facilitate a proper relationship to God, or at least not hinder that relationship.[50] And thus, we can state with certainty at least one axiom of technological research: "Never must the existence or the essence of man as a whole be made a stake in the hazards of action."[51] That is, we must not gamble with the entire existence of humanity. For surely, it is an endangerment to humanity's relationship to God if we were to extinguish human existence completely.[52]

To that end, below are a number of principles that should undergird the enhancement debate. Please note the similarity to common biomedical ethical principles

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[49] Ben C. Mitchell, Edmund D. Pelligrino, Jean Bethke Elshtain, John Kilner, and Scott B. Rae, *Biotechnology and the Human Good* (Washington, D.C.: Georgetown University Press, 2007), 15.

[50] James Peterson comments, "human beings are responsible to God to improve life for one another rather than drift in complacency. This is the model of Christ held up for imitation repeatedly, whether in the Gospels or in the apostolic letters (e.g., John 13:3-15 and Phil. 2:4-7)." Peterson, *Changing Human Nature*, 151.

[51] Hans Jonas, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age*, translated by Hans Jonas and David Herr (Chicago: University of Chicago Press, 1984), 37.

[52] Ibid.

widely in practice today. The basic principles to be considered are the need for *autonomy* – the knowledgeable willingness of those undergoing procedures. Likewise, there are the correlative principles of *benevolence* and *nonmaleficence* – do good and avoid harm. Finally, the principles of *justice* also must be addressed. These principles can help inform how to evaluate enhancement technologies. For if it can be determined that some proposed technology violates one of these principles, then the technology is most likely immoral to pursue. On the flip side, just because some enhancement does not violate one of these principles, it does not mean that the enhancement *should* be pursued. It would just show that there is no *prima facie* problem in researching such a technology. Likewise, the principle of *double-effect* can be useful here, or alternatively a sense of *proportionality*. Finally, we will look at some specific Christian presuppositions that come into play. Upon establishing these principles, we can then move on to developing a hermeneutic for enhancement.

6.4.1 Autonomy

Autonomy is based in the notion that persons are endowed with dignity that cannot be violated apart from their permission. It is an affirmation of the person's moral worth and recognizes that the person is in a society in which their rights are balanced with the rights of others.[53] Further, this assumes that people have a certain measure of personal freedom to do with their bodies as they please (within certain limits). Attending this freedom is the assumption of privacy. Likewise, this means that as autonomous beings we are afforded this dignity whether we are currently aware of these rights or not.

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[53] Thomas M. Garrett, Harold W. Baille, and Rosellen M. Garrett, *Health Care Ethics: Principles and Problems*, 3rd ed. (Upper Saddle River, NJ: Prentice Hall, 1998), 27.

Hence, a person's autonomy is not forfeited just because they are asleep or in a coma. So long as the person is alive (and in many traditions, even after they are dead), the person is entitled to have their wishes and best interests protected.[54]

Steven Garner states that the "principle of *autonomy* concerns the priority of the free and independent human individual in decision making, and in particular in decision making about an individual's body, health, and well-being."[55] The priority here is the free consent of another, for it is in the context of a freedom of choice that further perpetuates a culture of freedom – which will tend to avoid forcing procedures on the unwilling (or those unable to consent).[56] But it is not always clear, however, that a person fully understands to what they are consenting.[57] Indeed, external influences can be so persuasive or the information provided is so obtuse that one's autonomy is violated, since in either case they do not fully (or really) understand to what they are being subjected.[58]

Transhumanism primarily focuses on the desires of the autonomous individual who chooses to be (re)shaped by technology. However, as Stephen Garner observes, these decisions affect not just the individual, but society as a whole.[59] "This individualistic approach to technological development asserts that individual choices

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[54] Ibid., 28.

[55] Stephen Garner, "Christian Theology and Transhumanism: The 'Created Co-creator' and Bioethical Principles," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 234 (emphasis in original).

[56] Peterson, *Changing Human Nature*, 195.

[57] Patrick Lin and Fritz Allhoff. "Untangling the Debate: The Ethics of Human Enhancement," *NanoEthics* 2, No. 3 (2008).

[58] Peterson, *Changing Human Nature*, 194.

[59] Garner, "Christian Theology and Transhumanism," 229.

indirectly bring about health, longevity, and wholeness to all of society."[60] As such,

autonomy plays a central role in the contemporary enhancement debate, and the general

consensus seems to be along the lines of: no one is to be subjected to enhancement

technology that they do not want, nor should technologies be developed that hinder the

autonomy of the subject. Freedom of choice for both current and future society is a

primary value for both enhancement proponents and critics. Hence, technologies that

inhibit the autonomy of larger society may be justifiably mitigated in order to preserve

that autonomy.

6.4.2 Beneficence and Nonmaleficence

The basic idea of beneficence is to do more harm than good. It is looking out for

the other's best interest. It is the active attempt to perform good for another. The

correlative idea of nonmaleficence means to avoid doing harm.[61] If a course of action will

cause harm to someone, then that course of action is to be altered or ceased. *Prima facie*,

these are almost common sense notions and obviously acceptable – of course it is

desirable to "do good" and "avoid doing harm." The problem with this approach is that it

is not always clear what *is* good and what *is* harmful. Indeed, given the types of creatures

we are we cannot avoid doing *some* harm, nor can we perform *all* goods.[62]

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[60] Ibid., 236.

[61] Ibid., 237—238.

[62] Garrett, Baille, and Garrett, *Health Care Ethics*, 55.

The moral notion of *intention* counts for a lot in ethical action.63 If the intention is good, then while the action may not be justified, it does mitigate the blame that we place on the actor.64 To borrow an example from C. S. Lewis, why do we blame the man who tries to trip me but fails, but forgive the man who trips me, but did not intend to?65 Their intentions make all of the difference. We can apply this notion of intention to beneficence and nonmaleficence to see a way in which these ideas can help determine the morality of a certain action or proposal.

Beneficence says that we must do the good, but it is not possible to do *all* good. Likewise, nonmaleficence says we must not do evil, but it is not possible to avoid doing *some* evil. We cannot escape from allowing some evil. Nor can we perform only good. For, life itself is inherently risky. If we tried to avoid *all* harm, we would literally be doing nothing else.66

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63 This is a different understanding of intention than what was discussed in chapter 3, but similar to that discussed in chapter 5.

64 For example, someone finds a person in distress who is choking on (presumably) food. The person intends to help by performing the Heimlich maneuver (i.e., they are attempting to perform a good act) – it is thus unfortunate that the person helping does not *actually know how* to do it. However, they give it their best shot, but in the process the person who is choking passes out due to lack of oxygen. Further, let us assume for the sake of illustration that the person doing the Heimlich actually makes the person's condition worse because of their poor technique. So, not only is the person *not* doing good for the person choking, they have actually made things worse. Is the person guilty of simple assault because of their lack of medical knowledge? Unlikely. Their *intention* was to help. Their desire was to benefit the person choking, even though their actions were worse for the person. We may criticize the intended hero as ignorant and foolish, but we would not call them evil or diabolical. On the other hand, *if* their intention were to harm the person, but even accidentally helped the person, we would call their actions reprehensible. These types of judgments are all based on the *intention* of the actor.

65 C. S. Lewis, *Mere Christianity* (1943; repr., Nashville: Broadman & Holman Pub., 1996), 29.

66 Garrett, Baille, and Garrett, *Health Care Ethics*, 56.

6.4.3 Justice

Stephen Garner remarks that the "bioethical principle of *justice* is typically concerned with equitable distribution of limited resources, and in particular with access to those resources and information. However, justice as a broader concept also engages with the question of how the use of those resources might marginalize and disadvantage others."[67] Healthcare itself has multiple goals: prolong life, alleviate suffering, and optimize an individual's chance for a "happy" life.[68] Health care "is generally a good, but with an indeterminate goal."[69] Yet, whatever specific goal it has, justice is the overarching value that directs its movements. Within the enhancement debate "health and disease are loaded with social and subjective concerns as well as objective scientific criteria."[70] The problem is that there is no precise way to define either "health" or "disease" even though there is a general sense when one is "healthy" versus when one is "diseased." Sometimes the distinction is clear, other times not so much. For just like the fuzzy line between therapy and enhancement, so too is there a fuzzy line between health and disease.[71]

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[67] Garner, "Christian Theology and Transhumanism," 239 (emphasis in original).

[68] Garrett, Baille, and Garrett, *Health Care Ethics*, 86—88.

[69] Ibid., 89.

[70] Ibid., 84.

[71] For example, is the normal process of aging "healthy" or a "disease"? Your answer will probably depend on your philosophical and theological values of aging and death. Nevertheless, we can understand disease to be any deficiency in the physical body or psychological state of what the individual and society expect for themselves. "Because of the influence of social concerns on the recognition of disease, we define a disease as *any deficit in the physical form or physiological or psychological functioning of the individual in terms of what society wants or expects from that individual or in terms of what the individual wants or expects for himself.*" Ibid. (emphasis in original).

James Peterson comments that we simply cannot predict all possible effects of our actions, but we must make decisions anyway. Further, this inability to "see all ends" does *not* entail that all actions are equally desirable. As he says, acting "with insufficient knowledge would be immoral, but if human beings gain sufficient knowledge so that an intervention is not imprudent, it would not then be immoral on that count."[72] Of course, the rub is trying to determine what *is* or what *is not* considered "sufficient knowledge" to know which interventions are prudent. In general, however, this should not prevent us from trying to make things better. For, we *do* have *some* idea of what may or may not be helpful.[73]

Peterson offers four standards of justice that should guide any enhancement discussion.[74] First, it should be *safe*. At least it should be as safe as we can reasonably predict. Certainly, technologies can be used for more than an intended end, but given the potential impact scale of enhancement technologies, we should be cautious about any enhancements we bring about. Secondly, it needs to be a genuine *improvement*. This is more than a mere subjective desire. I may *want* to be a few inches taller, or have my skin a little bit darker (or lighter), but it is debatable if these would be real improvements in the relevant sense. Thirdly, any enhancement should *create opportunities* for people in increasing their capacities. If an "enhancement" limits the recipient's options, then it may not be a true enhancement. In a sense, this standard could be restated as "avoid a Devil's

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[72] Peterson, *Changing Human Nature*, 157.

[73] Ibid.

[74] What follows is a summary of Peterson's discussion on this topic. Ibid., 163—204.

bargain."[75] Finally, we need to best use our *limited resources*. This is a question of distributive justice. Should we invest heavily in some obscure (though arguably beneficial technology), or should we put that investment toward the ameliorating of known diseases?[76]

Peterson finds justification for these four standards by following the admonition of the prophet Micah. "And what does the Lᴏʀᴅ require of you but to do justice, and to love kindness, and to walk humbly with your God" (Micah 6:8, ESV).[77] "Justice" is accomplished by doing no harm – being safe, and properly allocating limited resources. To "love kindness" is to offer *real* improvements and *real* expansion of opportunities. Any "enhancement" that lessens (good) options for a person is questionable at best. Lastly, is the reminder of why we exist at all – "to walk humbly with your God." Indeed, this last phrase is the overarching principle that guides the entire enterprise. Enhancement, for the Christian, should not interfere with one's relationship to God or to others. Any technology that displaces a proper relationship with God is an idol, and any technology that displaces a proper relationship with others cannot be a true enhancement. Humans are social and relational beings and without proper relationships (to God and others) their personalities and values warp. An enhanced person without developed

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[75] For example, suppose someone expresses compulsive tendencies. These tendencies range from mildly annoying to pathological. However, there is an element of "responsibility, vigilance, and attention to detail" associated with compulsiveness that is a virtue in some contexts. Ibid., 173. In other words, eliminating the symptoms associated with compulsiveness because of an undesired trait may equally eliminate virtues needed for other practices. Thus, it must be weighed if the reduction of impulsive tendencies will create opportunities for the person or restrict opportunities.

[76] Peterson notes how these four principles mirror the standards set forth by Tom L. Beauchamp and James F. Childress for biomedical ethics: non-maleficence, beneficence, autonomy, and justice. Ibid., 164. Cf., Tom L. Beauchamp and James F. Childress, *Principles of Biomedical Ethics*, 4th ed. (New York: Oxford University Press, 1994).

[77] [וּמָה־יְהוָ֞ה דּוֹרֵ֣שׁ מִמְּךָ֗ כִּ֣י אִם־עֲשׂ֤וֹת מִשְׁפָּט֙ וְאַ֣הֲבַת חֶ֔סֶד וְהַצְנֵ֥עַ לֶ֖כֶת עִם־אֱלֹהֶֽיךָ]

relationships and proper socialization could be extraordinarily dangerous as they may not be able to see the true value in being in relationship with others.

Those that favor safety over technological advancement often put forward the so-called "precautionary principle" which essentially says that if there is any doubt about an action, the safest route is to avoid that action. Indeed, the "precautionary principle" has a unique advantage for survival since it is risk adverse. You cannot be seriously harmed if you do not engage in dangerous behavior. However, there is a significant drawback to just relying on the "precautionary principle," namely, circumstances may dictate that the wisest course of action involves some risk. Sometimes inaction is just as risky (if not *more* risky) than taking some action. As Peterson puts it, "Inaction is not always the safest course."[78] Sometimes, the "safest" action is engaging in risky behavior. As a counter-balance to the "precautionary principle" is the "proactionary principle" which essentially states that we should actively pursue enhancements with an eye towards limiting negative outcomes and promoting positive outcomes. Enhancement enthusiasts tend to be more bullish on the "proactionary principle" and wary of the "precautionary principle."[79]

The Christian tradition has a long history of emphasizing "love of neighbor" (cf., Lev. 19:18; Matt. 22:39; 1 John 4:21). Christian love is inclusive, not exclusive and seeks "to extend care as widely as practicable to fellow human beings."[80] Keeping people safe

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[78] Peterson, *Changing Human Nature*, 165.

[79] Max More, "The Proactionary Principle: Optimizing Technological Outcomes," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: Wiley-Blackwell, 2013) and Buchanan, *Beyond Humanity?*, 199—203.

[80] Peterson, *Changing Human Nature*, 168.

is one way to extend care. Another way to care for people is to make their lives and various capacities for life "better." Indeed, Peterson notes that in the attempt to avoid harm, enhancement may be seen as the preferred option.[81] And while we generally do not question if it is "good to improve," our notion of "improvement" is based squarely on what we think is the purpose of our lives.[82] One's worldview informs the values that allow us to determine if some technology is an actual enhancement or not. Different cultures value different traits and capacities. What may be valuable in one society, may be viewed as a defect in another. For example, what some may see as steadfast adherence to principle, others may see as juvenile stubbornness.[83] Further, to say that some enhancement is a real, genuine good for the person, then their capacities and options for real goods should be increased not limited.

6.4.4 Double-Effect and Proportionality

The therapeutic angle to biomedical research appeals to the Christian sympathies, since it is Jesus' ethic of love that provides the imperative to benefit others. Jesus healed people, and so too should we try to heal people. As such, developing the proper techniques to alleviate suffering is an admiral goal in Christian thought. Indeed, failing to develop the technology within our grasp to alleviate pain, suffering, and illness may be seen as a failure to fulfill our mandate as God's ambassadors in the world.[84] Thus, not only should we not cause people pain, but we should utilize technology to overcome

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[81] Ibid., 170.

[82] Ibid., 171.

[83] Ibid., 173.

[84] Garner, "Christian Theology and Transhumanism," 238.

physical and psychological suffering which will increase human flourishing.[85] Exactly *how* this is to be done however is more complicated.

Perhaps the most popular way to mitigate the extent of harm allowed has been by utilizing the principle of double effect. Some actions result in a mixture of good and bad, and this principle states that an act that results in some evil may be allowed should four conditions be met: 1) the action must be good, not be inherently evil, or it must be morally neutral; 2) the agent must only intend the good effects, not the bad; 3) the bad effect cannot be the means to the good effect; and 4) the proportion of good and bad must be that the good outweighs the bad.[86]

Garrett, Baille, and Garrett, however find the principle of double effect cumbersome and prefer to utilize the principle of proportionality. This principle states: "Provided the action does not go directly against the dignity of the individual person (the

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[85] Ibid., 239.

[86] Garrett, Baille, and Garrett, *Health Care Ethics*, 59. A common example to explain the use of double effect is evaluating which course of action to take from a pro-life perspective when a mother is found to be with a tubal pregnancy (i.e., ectopic pregnancy) – when a fertilized ovum implants in a fallopian tube. If the mother carries the child for a significant time, the fallopian tube will rupture endangering the life of the mother and consequently the child. Pro-life advocates are pretty loathe to recommend abortion, but the principle of double effect seems to allow a way to save the life of the mother even though it will result in the death of the child. Obviously, a pro-abortion advocate would recommend simply aborting the fetus. (This option, however, is not open to someone who thinks abortion is inherently evil). Left untreated, an ectopic pregnancy will kill the child anyway. As such, the recommended course of action from a pro-life perspective is to surgically remove the part of the tube with the fetus. This action is generally thought to satisfy the four criteria for double effect. First, removing a fallopian tube is inherently non-moral *per se*, but is good when its removal could save the life of the mother. Minimally, there is no inherent evil being perpetrated by removing a "malfunctioning" non-essential body part. Second, so long as the doctors are intending to save the mother's life and *not* trying to end the child's life, then the action can continue. Third, the doctors are not performing an abortion *per se* to save the mother's life, hence, they are not directly having to kill the fetus to save the mother. Rather, they are removing the malfunctioning tissue (i.e., fallopian tube). Of course, by removing the tube, the undesired side effect will be the death of the fetus. Finally, saving the life of the mother would seem to be a veritable good – the mother is saved to nurture and relish current and future relationships. The mother's life has some goods worth preserving and the removal of the fallopian tube will allow those relationships and goods to continue. Thus, we can see a practical use of the principle of double effect. This outline could be used for any number of decision making situations that attempt to minimize the harm perpetrated by a given course of action.

intrinsic good), there must be a proportionate good to justify permitting or risking an evil consequence."[87] Like the principle of double effect, the principle of proportionality has four factors in which to consider. First, are there alternative ways to obtain the desired good with less or no evil? That is, if there are ways to obtain the desired end with as little evil as possible, then that is the path that should be pursued.[88] Second, what is the "level" of good desired compared against the "level" of evil risked or permitted? That is, "not all goods and evils are equal. . . . At base, we recognize that some things are *merely useful* for the life of the person, while others are *necessary* for human life and dignity."[89] Third, what is the certitude of good to be gained or evil to be allowed? "Some serious evils are remote; that is, the risk of them is so small that in practice we treat the evil as not serious. . . . proportionality involves very complicated if not always precise balancing of the levels of goods and evils with the probability or certainty of these same goods and evils."[90] Finally, what is the causal influence of the agent? Some agents are more relatively responsible for good or evil than others.[91]

Given these considerations on proportionality, Garrett, Baille, and Garrett propose a refined understanding of beneficence and nonmaleficence. They say that nonmaleficence should be understood as avoiding evil unless there is a proportionate reason for risking the evil. Likewise, beneficence should be understood as doing good

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[87] Garrett, Baille, and Garrett, *Health Care Ethics*, 59.

[88] Ibid., 60.

[89] Ibid., (emphasis in original).

[90] Ibid., 60—61.

[91] Ibid., 62.

unless the consequences of said action produces a disproportionate evil.[92] Whether one prefers to appeal to the principle of double-effect or proportionality, the same thrust is achieved – accomplishing *only* good with no evil appears to be impossible given our limited and fallible means, as such, we need to operate according to some principle to maximize the good and minimize the evil to the best of our knowledge and ability.

6.4.5 Presuppositions

Technology has without question shaped our social structures and how we interact with each other.[93] Humans are creatures that both make and are shaped by our technology. As such, it is incumbent upon us to create "good" technology and not hinder efforts to bring about human flourishing under the pretense of the newest technology. Again, there is nothing wrong with technological advancement *per se*, but some technologies may actually hinder the human good. This belief, however, makes multiple assumptions – the least of which is not that "human" is a definable organism, or that "good" is a generally agreed upon term. The previous chapters have sufficiently demonstrated that this is not the case. However, also in line with chapters 3 and 5, this project takes the notion of "human being" as understood in a certain way and "good" to comprise a robust definition. Likewise, there are a number of presuppositions that should be acknowledged as foundational to a Christian approach to technological enhancement, that simply cannot be ignored.

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[92] Ibid., 62—63.

[93] Lake, *Prophets of the Posthuman*, 156.

The first is that God is the creator of *everything*.[94] The creator-creation distinction is the one belief that sets monotheism apart from every other worldview. For atheism has no creator and pantheism does not distinguish between the creator and the creation (for they are one and the same). For the monotheist, however, the creator-creation distinction is the framework upon which all else is understood. It sets the context for our actions and beliefs. This is God's creation and we are but limited stewards of it. Thus, all of our actions are in light of God's command over all things as the source for their existence.

Second, Christians will appeal to the Bible as the locus for how to believe and act. The Bible informs us of ultimate end and how to achieve it.[95] God has made us to be in fellowship with Himself and with others, and the Bible provides us direction on how best to facilitate those relationships. Likewise, the person of Jesus as revealed in the New Testament provides a means of restoring our proper relationship to God. It should be obvious that whatever particular wisdom that is found in the Bible is available to all people that have access to it. However, the belief that the Bible is the final say in how we are to respond to God is, of course, a matter of faith.

Third, as creatures in God's image, all persons irrespective of age, development, disability, status or health are worthy of respect and dignity.[96] This was already covered in chapter 3, but is reiterated here.

Fourth, following from the notion of the *imago Dei* is the conviction that humans are more than just human tissue. Any technology that seeks to destroy or injure human

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[94] Mitchell, et al., *Biotechnology and the Human Good*, 145.

[95] Ibid., 145—146.

[96] Ibid., 146.

persons at any stage of development should be resisted and wholly avoided.[97] This conviction has obvious implications for the abortion debate (which I will not engage in here), but suffice to say, this is just a logical extension that the whole human person is precious in God's sight. To treat any human as simply a lump or collection of tissue and cells is to perform an unwarranted reduction against what it means to *be* human.

Fifth, human beings are created for communion with God and others.[98] This belief finds its basis in the overall thrust of the Christian tradition which interprets the story of Genesis through Revelation as the separation and long return of humans to fellowship with God. It can be summarized in Jesus' prayer in the Garden of Gethsemane in which believers may be one just as the Father and Son are one (John 17:21). This idea is reiterated by John the elder (1 John 1:3; 3:24). Humans are social creatures and made for fellowship – with God and with others.

Finally, the key problem for mankind is not physical or mental limitations, but sin.[99] "Some technologies may ameliorate the effects of sin, but no technology can eradicate the reality of sin." [100] Sin is not a popular topic in our modern cosmopolitan society, but according to the Christian tradition, it is precisely sin that sets us back. It keeps us from being how we should be. It persuades us to take the easy route, rather than seek the noble path. Sin alienates us from God and from others, and can be manifested in a number of ways – pride, envy, jealousy, hatred, lust, greed, laziness, etc. The seduction

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[97] Ibid.

[98] Ibid.

[99] Ibid., 147.

[100] Ibid.

of enhancement technology is that it offers to alleviate our greatest problems, but it is only limited to the physical aspects of human life. If our most fundamental problem is spiritual, moral, and willful sin, then no advancement in technology will be able to solve our deepest needs – for our deepest needs are not physical, but willful and spiritual.

6.5 A Proposed Hermeneutical Schema for Evaluating Enhancement Technologies

Charles Rubin remarks that transhumanists are aiming for a self-perpetuating system, a system that entrenches and improves upon previous advancements.[101] Indeed, in "a world of enhancement competition, consistent 'bioluddites' will be self-eliminating."[102] The pressure to become ever more enhanced is nearly irresistible. Brent Waters suggests the need for a hermeneutic when he says, "The natural ethic derived from creation's vindication insists that a line can and should be drawn regarding the extent to which humans, both individually and collectively, transform themselves. Yet in our obedient freedom it is a line that will need to be redrawn in response to the development of more efficacious technologies and medical practices."[103] The issue ultimately is not *whether* we will shape our selves or our surroundings but *how* will we do so and by *what* means. Will we do it conscientiously or not.[104] As a Christian, the

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[101] Rubin, *Eclipse of Man*, 127.

[102] Ibid., 129.

[103] Brent Waters, *This Mortal Flesh: Incarnation and Bioethics* (Grand Rapids, MI: Brazos Press, 2009), 130.

[104] Peterson, *Changing Human Nature*, 10.

question can be further refined as how "can we develop this best to love God, our neighbors, and the earth entrusted to us?"[105]

Buchanan lists a couple of considerations to evaluate if the risk is worth the reward for some given enhancement. First, he says to determine the magnitude and probability of possible harm. Second, determine the magnitude and probability of possible benefits. Thirdly, "determine whether there are morally acceptable, affordable, and effective risk-prevention or risk-reduction measures that would allow us to reap the benefits of doing X without running an unacceptable risk of bad consequences."[106] If the rewards do not outweigh the expected risks, then the enhancement should not be pursued.

Buchanan notes that it is possible someone may object to developing a "cost and benefits" analysis of some enhancement, or developing a hermeneutic that attempts to filter the same sorts of issues. Namely, the critique is that providing any sort of analysis is both morally shallow and impossible to quantify.[107] It is thought to be morally shallow if reducing the complexity of the enhancement debate can be accomplished by a simply "pros and cons" column. As discussed above, this is *not* what an enhancement hermeneutic is trying to accomplish. Secondly, and more importantly, it may very well be impossible to quantify some proposed enhancement or its effects. However, the answer to this charge is not to then abandon the project, but rather attempt to account for as many variables as possible. The hermeneutic is not iron-clad and should be adjusted as new data is available. Indeed, if necessary, the hermeneutic could be wholly abandoned in

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[105] Ibid., 52.

[106] Buchanan, *Beyond Humanity?*, 176.

[107] Ibid., 177.

favor of some other method. What is *not* acceptable is to ignore the issue and to cease considering the realities before us.

Charles Rubin says that it is human life and "human details" that "decisively shape how innovations come to be and how they are used."[108] The need for a hermeneutic is exemplified by the fact that we already utilize technology to make life better, however we need to fend off the hubris that so often attends human endeavors. What is needed is modesty and humility.[109] There "is no historical evidence that technology can be limited by moral constraint, or that what starts as legitimate treatment of disease will not be used beyond therapy."[110] The need for a hermeneutic is important because more "than anything else, we must control our power to control who, and what, we are. Otherwise, we are in danger of becoming victims of our own ingenuity, in which we make our utopias into dystopias."[111]

Therefore, I propose that we consider we consider a five stage process for thinking and implementing enhancement technologies. These stages will be considered in more detail below, but the basic flow of the hermeneutic is as follows. Stage 1 is positioning human nature and considering human beings as the types of creatures as they are in their current state. Stage 2 defines the proposed enhancement and determines the limits that the enhancement is predicted to achieve. Stage 3 is the most crucial step and the one susceptible to the most controversy, for it is at this stage when one begins to make judgement calls on whether the proposed enhancement should be pursued or not.

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[108] Rubin, *Eclipse of Man*, 174.

[109] Ibid., 181.

[110] Mitchell, et al., *Biotechnology and the Human Good*, 111.

[111] Ibid.

Below will be a series of questions and issues to consider so that a principled answer can be given on whether to proceed with the project, cease it, or reshape it. Stage 4 oversees the implementation of the enhancement at a small scale in efforts to limit the affected organisms to a manageable number should something go drastically wrong. Stage 5 is an evaluation of the effectiveness of the enhancement and recommendation to either proceed with dispersing the enhancement, cease it, or reshape it. Should the enhancement be acceptable and integrated into society, it would then follow that we would have a newer understanding of human persons and thus we are back to Stage 1. This cycle of evaluation can be repeated indefinitely, and of course, it can undergo changes as more reflection refines the process. Nevertheless, these stages will help to minimize the dangers of "radical" enhancements and maximize "moderate" enhancements for the good of society to the best of our ability.

6.5.1 Stage 1: Positioning Human Nature

Much of Stage 1 has already been established in chapters 2 and 3, and as such, there is not much to add at this point. Suffice to say, that having a robust view of *who* and *what* humans are will direct and shape what aspects of human beings that researchers want to alter. Thus, viewing humans as simply the current end product of an evolutionary process opens doors to certain research avenues that thinking humans are holistic beings in God's image does not. Likewise, it could be the case that even depending on your view of how evolution works, it may or may not be a good idea to pursue certain enhancements. Francis Fukuyama, for example, takes it that even though evolution is undirected it is ruthless in making us organisms fit for our environment. As such,

changing ourselves in ways evolution has not directed us, may prove detrimental to our ability to interact with our environment.112

It should be pointed out that one's understanding of what makes us *human* will change as one follows this hermeneutic. The point is, that this is the starting point for this process and *must* be taken into account in order to properly place humanity in its context. To remove humans from this context is to displace what the human person is and to bracket them apart from their various relationships. Human persons cannot be considered in isolation, nor can their parts.

6.5.2 Stage 2: Defining the Proposed Enhancement

Having considered human persons in their proper context, enhancement proponents can now define what exactly it is they want to accomplish: make our memories better; live longer; better eyesight; make us smarter; etc. This is the point at which the proposal takes shape. The enhancement proponent notices a problem with the human condition and seeks a way to remedy it through Level I technology. Humans are not as intelligent as they should be, so we need to increase mental capacity. Or humans do not live as long as we like, so we need to develop strategies to increase life expectancy. These sorts of themes can be multiplied.

There are number of issues that are addressed at this point besides what the desired change to be researched. Namely, *why* seek the change. For example, is human mental capacity really so detrimental that we should risk tampering with it? What is so wrong with the length of our current life spans? Etc. This is basically asking what are the

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112 Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution* (New York: Picador, 2002), 98.

values that motivate a particular approach to overcoming human limitation? "What are the values that motivate a particular investment in science or technology?"[113] *Who* is it that holds these particular values?[114] Are there alternative approaches to achieving the desired end that may be better suited to the types of beings we are? For example, we may want to increase the capabilities of human eyesight, but is cybernetic implantation or retinal replacement instead of glasses or lasik really the best way to achieve these goals?[115] Likewise, if the proposal is genetic in nature, we should ask what the modification is at the "is" level. That is, what does it propose to do ontologically to the individual? The further question to then ask is at the "ought" level. That is, *should* we indulge in this particular genetic modification?[116] This question will emerge again in Stage 3.

6.5.3 Stage 3: Evaluating the Implications of the Proposed Enhancement

As noted above, this is perhaps the most controversial – and crucial – stage for the entire hermeneutic, for it is here that so many issues come together. Indeed, it is in this stage that the most questions emerge and the most ambiguous questions need to be answered. For it is here that Level I technologies engage Level II concerns. The overall thrust of this stage is to answer the main question: is the proposed enhancement worth pursuing or should we maintain the status quo? In order to answer this main question we

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[113] Allenby and Sarewitz, *The Techno-Human Condition*, 177.

[114] Ibid.

[115] Ibid.

[116] Bernard E. Rollin, "Telos, Value, and Genetic Engineering," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 330.

can break up the process into three aspects. These three aspects correspond to the moral program put forth in chapter 5. That is, questions will be structured around how they address agency, relationality, and responsibility. If an enhancement is believed to cohere with an agency of relational responsibility, then it can move to the next stage of the hermeneutic. However, if a proposed enhancement forces one to violate one of the principles of an agency of relational responsibility, then that particular enhancement should not be pursued as it is.

6.5.3.1 Questions Related to Agency

In regards to agency there are two broad issues to address. The first is how the proposed enhancement affects the integrity of life (discussed in chapter 5) and the second is how the proposed enhancement impacts human flourishing. Both of these issues are addressing the needs and wants of the subject and the effects of the enhancement *on* the subject.

Thus, the first question to ask regarding agency is: *does the proposed enhancement value the integrity of life*? That is, does the proposed enhancement "commodify" human life? Does it intentionally or unintentionally "demean, debase, or degrade individuals"?[117] Does the nature of the technology require a diminished view of human life, values, or existence?[118] Does the technology highlight only one good and tend to ignore drawbacks? For example, prolonging life is often very good, but this tends to isolate lifespan as the only value worth pursuing. Someone whose brain is disease

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[117] Mitchell, et al., *Biotechnology and the Human Good*, 139.

[118] Ibid.

riddled with Alzheimer's may not view such prolongation as a necessary "good."[119] The over-arching fear here is that future "biotechnology is likely to offer us bargains that trade off length of life span for quality of life."[120] In light of these questions, if the enhancement technology can be shown to contribute to the integrity of life, then one is free to move to the second set of issues related to agency. However, if the technology cannot be shown to contribute to the integrity of life, or if it is believed that the technology may diminish the integrity of life, then that technology should be avoided.

The second question to ask in regard to agency is: *does the proposed enhancement encourage true flourishing for the agent*? That is, is the technology going to *actually* make life better or is it concerned with promoting "technological and economic imperatives"? Is the technology being developed for the sake of technology or for the betterment of humanity?[121] Scientific advancement is important and is a most persuasive means of discovering truth, but it is not the only means of human knowing. Science is a tool of human knowledge, it is not the sole means of human knowledge. As such, science should always be in service to humanity, humans should not be sacrificed in service to science – as this would violate that human's flourishing and integrity of life.[122]

6.5.3.2 Questions Related to Relationality

Humans are social creatures and maintain a variety of relationships. As established in chapters 3 and 5, humans are first and foremost to be related to God and to

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[119] Fukuyama, *Our Posthuman Future*, 67.

[120] Ibid., 69.

[121] Mitchell, et al., *Biotechnology and the Human Good*, 143. This should not be taken to imply it may not be both.

[122] Ibid., 144.

others. Thus, any activity that endangers those relationships should be avoided. Therefore, there are three questions regarding relationality that must be addressed. Again, so long as the answers given show that an enhancement can contribute to our different relationships, then the enhancement may proceed to the next set of questions. On the other hand, should an enhancement inhibit a relationship rather than strengthen it, then it should be avoided as it is.

Thus, the first question in regard to relationality is: *does the proposed enhancement promote concern for others*? That is, does the technology heighten our awareness of another's needs, or does it cater to our own narcissistic tendencies? Does it cause us to yield to others, or wallow in self-absorption?[123]

The second question in regard to relationality is: *does the proposed enhancement make just use of limited resources*?[124] This, of course, is a question of distributive justice and is not easily answered. However, there is a sense that some actions are simply unjust in light of alternative courses of actions. For example, should society spend enormous amounts of resources to slightly benefit one (or a few) people when those resources could be diverted to benefit many people at significant rates? Likewise, there is a growing concern of "technicism" in society in which we spend tremendous amounts on "superficial" procedures (e.g., plastic surgery, Botox, etc.) in order to "maintain competiveness in the marketplace." Given the many needs in the world, is this not a sign of "a widespread social pathology"?[125] Similarly, our society prioritizes the young over

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[123] Ibid., 140.

[124] Ibid., 141.

[125] Ibid.

the old – judging that older lives are not as valuable as younger ones. Society seems to

value more youthful vigor to aged wisdom.126 As such, society is ever more willing to

expend resources on youth, but not on the elderly. Put differently, the young are willing

to sacrifice the old by withholding certain resources. The question before us, then, is will

enhancement technologies exacerbate these discrepancies?

The final question in regard to relationality is: *does the proposed enhancement*

*facilitate stewardship over our resources?*127 This is similar to the previous question, but

instead of dealing with the just *distribution* of resources, this question addresses our

maintaining resources for future generations. Further, this concern is directly born out of

the "dominion mandate" found in Genesis 1:28-30.128 As such, there is an obvious

"cosmic" dimension to this question – are we "taking care" of God's world? Are we

treating it appropriately? Thus, the issues become how are we treating our natural

resources? Are we creating or alleviating ecological problems with the development of

certain resources?129 The Christian worldview generally sees humanity as responsible to

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126 Ibid., 142.

127 Ibid., 138.

128 "And God blessed them. And God said to them, 'Be fruitful and multiply and fill the earth and subdue it and have dominion over the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth.' And God said, 'Behold, I have given you every plant yielding seed that is on the face of all the earth, and every tree with seed in its fruit. You shall have them for food. And to every beast of the earth and to every bird of the heavens and to everything that creeps on the earth, everything that has the breath of life, I have given every green plant for food.' And it was so."

[וַיְבָ֣רֶךְ אֹתָם֮ אֱלֹהִים֒ וַיֹּ֨אמֶר לָהֶ֜ם אֱלֹהִ֗ים פְּר֥וּ וּרְב֛וּ וּמִלְא֥וּ אֶת־הָאָ֖רֶץ וְכִבְשֻׁ֑הָ וּרְד֞וּ בִּדְגַ֤ת הַיָּם֙ וּבְע֣וֹף הַשָּׁמַ֔יִם וּבְכָל־חַיָּ֖ה הָֽרֹמֶ֥שֶׂת עַל־הָאָֽרֶץ׃ וַיֹּ֣אמֶר אֱלֹהִ֗ים הִנֵּה֩ נָתַ֨תִּי לָכֶ֜ם אֶת־כָּל־עֵ֣שֶׂב ׀ זֹרֵ֣עַ זֶ֗רַע אֲשֶׁר֙ עַל־פְּנֵ֣י כָל־הָאָ֔רֶץ וְאֶת־כָּל־הָעֵ֛ץ אֲשֶׁר־בּ֥וֹ פְרִי־עֵ֖ץ זֹרֵ֣עַ זָ֑רַע לָכֶ֥ם יִֽהְיֶ֖ה לְאָכְלָֽה׃ וּֽלְכָל־חַיַּ֣ת הָ֠אָרֶץ וּלְכָל־ע֨וֹף הַשָּׁמַ֜יִם וּלְכֹ֣ל ׀ רוֹמֵ֣שׂ עַל־הָאָ֗רֶץ אֲשֶׁר־בּוֹ֙ נֶ֣פֶשׁ חַיָּ֔ה אֶת־כָּל־יֶ֥רֶק עֵ֖שֶׂב לְאָכְלָ֑ה וַֽיְהִי־כֵֽן׃]

129 Mitchell, et al., *Biotechnology and the Human Good*, 138.

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God for stewardship of the earth. Indeed, preserving the environment is essential to human flourishing as we are dependent on the environment for our survival.[130]

6.5.3.3 Questions Related to Responsibility

Responsibility is a blanket concept and binds together issues related to agency and relationality. As such, there is a broader aspect to questions of responsibility which may allow for a number of interpretations and answers. Like those questions addressed by agency and relationality, if a technology exhibits signs of responsible use, then it can move to the next stage of the hermeneutic. However, if a technology does not exhibit the signs of being used responsibly, then it should be avoided as it is.

The first question to ask in regard to responsibility is: *does the proposed enhancement display signs of preparedness for relatively safe implementation*?[131] Are measures in place that will limit any possible damage that could result from a disastrous implementation? Essentially, this question gets to the issue of how "cavalier" the enhancement proponent is being.[132] Transhumanists insist that one of the best ways to prevent powerful technology from falling into the "wrong" hands is to democratize enhancement technology. The more people that have access to the technology, then the less likely that technology can be used to exert one's will over another. But does democracy insure enhancement technology will not be used for ill? Or can it really

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[130] Ibid.

[131] Ibid., 144.

[132] This question urges the development of contingency plans should the enhancement take a negative turn. For example, what are the quarantine procedures should an enhancement actually produce a super virus. Or, how should we prevent certain technologies from falling into the hands of dangerous people.

decrease the impact of ill-used technology? Along these lines it can be asked to whom is the likely beneficiary of a given enhancement? Or to whom will the enhancement negatively impact?[133] Further, who profits from an enhancement? Are there alternative approaches that may achieve the same end?[134] Will a given technology cause harm to some people, or a loss of "well-being" to individuals and society?[135] Conversely, what is the cost of *not* implementing the proposed enhancement? If it can really increase the well-being of individuals and societies, then this would be a strong reason in its favor.[136] These sorts of preparedness questions can be difficult to answer due to the fact we cannot see into the future – all we can do is make an educated guess.

The second question in regard to responsibility is: *does the proposed enhancement encourage "holiness" or does it appeal to our most base inclinations*?[137] That is, does the proposed enhancement appeal to our pride, our materialistic tendencies, our vain attempts at self-aggrandizement, or our quest for physical splendor?[138] Does the proposed enhancement appeal to our lust for power or sexual fulfillment? Does it encourage our "commodification" of persons?[139] Does it encourage a form of "enslavement" to fashion or succumb to peer pressure?[140] Can the enhancement be used

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[133] Allenby and Sarewitz, *The Techno-Human Condition*, 177.

[134] Ibid.

[135] Garner, "Christian Theology and Transhumanism," 237.

[136] Ibid.

[137] Mitchell, et al., *Biotechnology and the Human Good*, 140.

[138] Ibid.

[139] Ibid.

[140] Ibid.

as a bludgeoning tool for anger and hatred?[141] Though the main question here is phrased

in religious terms, the sentiment addresses a broad range of generally accepted vices and

virtues. That is, one does not have to be religious to properly answer the question.

The final question in regard to responsibility is: *does the proposed enhancement*

have a therapeutic element to it, or is it strictly an enhancement of ability?[142] As

discussed above, technologies that are (fairly) clearly therapeutic are pretty well

accepted, but this does not imply that clear enhancements may not also be acceptable. If a

technology is solely an enhancement, it is an open question whether it is acceptable or

not, but if it is therapeutic it will most likely be acceptable (assuming it has satisfied the

prior criteria). The questions listed above are to help provide an answer. Essentially,

though, does the technology "foster or inhibit" communal relationships?[143] Does the

technology promote communal values and dignify individuals regardless of their

abilities?[144] This is just another way of saying, does the proposed technology cohere with

the values established by an agency of relational responsibility? If the answer is "no" at

any point, then the technology needs to be avoided or reworked until the answer is "yes."

If the answer is "yes," then we can proceed to the next stage of the hermeneutic.

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[141] Ibid.

[142] Ibid., 139.

[143] Ibid.

[144] Ibid.

6.5.4 Stage 4: Implementing the Proposed Enhancement at a Small Scale

Innovations that do not diffuse, give opportunity for domination and exclusion.[145] The fear of distributive injustice has mainly two parts: deprivation and unequal access. While inequality is a definite concern, the more dangerous option is deprivation of enhancement.[146] Actively keeping enhancement technology from certain people all the while enjoying the benefits of said technology would be a willful disregard for the rights of the person you are depriving. Inequality may result for any number of reasons, but deprivation is a conscious decision to keep some people from gaining the benefits of some technology.

Innovation affects distribution and alters constraints.[147] Depending on what the technology *does* one may find it easy or difficult to distribute. For example, genetic modifications will be slow to implement due to the nature of how genes operate. However, a pharmaceutical enhancement could theoretically be dispersed rather quickly. Hence, pending the technology, access to it could be fairly simple or not. It is therefore incumbent upon society to diffuse beneficial innovations as widely as possible.[148]

Justice is not served when basic research money goes to well-developed areas of the world and not to help those less fortunate.[149] Hence, the concern that if enhancement

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[145] Buchanan, *Beyond Humanity?*, 244.

[146] Ibid., 249—251.

[147] Ibid., 244.

[148] Allen Buchanan remarks that the problems "of justice arise, not because a valuable innovation is an enhancement or because it is a biomedical enhancement, but because some lack access to it and their lack of access deprives them of benefits they are entitled to or makes them vulnerable to domination, exploitation, or unfair competitive disadvantage." Ibid., 245. Thus, he wants to distribute enhancements as far and as wide as possible.

[149] Ibid., 246.

technologies are only available to a few privileged individuals, then an actual injustice will have been committed. Buchanan agrees that enhancement innovations that are available only to a few may be a cause for injustice.[150]

The notion of consumer choice, of personal voluntarism, is an essential guideline of the transhumanist agenda. As Rubin states it, "the core belief is that people ought to be able to choose for themselves the manner in which they enhance or modify their own bodies. If we are to use technology to be the best we can be, each of us must be free to decide for himself what 'best' means and nobody should be able to stop us."[151] Rubin continues that this degree of personal choice (or "techno-libertarianism") is necessary, if for no other reason than to distinguish the contemporary transhumanist movement from the modern eugenics movement – breeding people for certain desired traits. As Francis Fukuyama notes, the specter of eugenics hangs over the entire enhancement debate.[152] In the eugenics movement in the early twentieth century, you did not get to *choose* the alterations done to yourself. However, the contemporary transhumanist movement is all about self-direction of modification – you choose your own improvements.[153] Yet, despite what transhumanists suggest, enhancements are not "just a matter of what one

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[150] Ibid.

[151] Rubin, *Eclipse of Man*, 127. The same idea can be found in Nick Bostrom, "The Transhumanist FAQ: A General Introduction," http://www.transhumanism.org/resources/FAQv21.pdf (accessed March 19, 2015) and Anders Sandberg, "Morphological Freedom – Why we Not Just Want it, but Need It," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: Wiley-Blackwell, 2013).

[152] Fukuyama, *Our Posthuman Future*, 85.

[153] Rubin, *Eclipse of Man*, 127—128. This notion is largely true, but there are a couple of significant instances where it is false. Namely, genetic modification of embryos. This process is almost purely eugenic – *even if* all of the changes are true goods and desirable enhancements.

individual chooses to do or not do."[154] Parents will choose varying enhancements for

their children, the child will not get to *choose* what is enhanced.[155] The real distinction

between the old eugenics program and the new genetic enhancement program is not

solely the issue of self modification versus forced modification (though that is part of it).

The real issue is whether the modification is state directed or not.[156] But even this is not a

guarantee. Should some enhancements prove thoroughly beneficial, then it is not at all

far-fetched to see how some governments may not begin encouraging (or even requiring)

certain enhancements "for the good of society."[157] As such, innovation can affect justice

either positively or negatively.[158]

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[154] Ibid., 156.

[155] "Children who are the subjects of genetic modification, obviously without consent, are the most clear class of potentially injured third parties. . . . Libertarians argue that since the vast majority of parents would want only what is best for their children, there is a kind of implied consent on the part of the children who are the beneficiaries of greater intelligence, good looks, or other desirable genetic characteristics." Fukuyama, *Our Posthuman Future*, 93. Fukuyama, however, doubts that all children will be wholly happy with the choices of their parents. A child might be modified to have increased athletic ability, but this may come at the cost of inhibiting their ability to pursue certain intellectual pursuits. Even if a child were modified to have both increased intelligence and athletic ability, it would be difficult for a person to excel at both pursuits. One would eventually need to take precedence over the other. Likewise, Fukuyama worries that parents will modify children based on the latest "fad." If it is currently "cool" to be ultra-thin for girls, then parents may deem it in their child's best interest to genetically modify them to a more petite body size – which, again, may eventually interfere with that child's personal goals. Ibid., 93. Ultimately, Fukuyama is concerned that parents will make enhancement choices for their children based on misguided criteria or at the behest of doctors and scientists who have their own agenda. Social and cultural norms, will exacerbate the pressure parents feel to genetically modify their children. However, it is not clear that the advantages of genetic modification will result in absolute goods to be obtained. Rather, the goods obtained will be relative. As Fukuyama puts it, "A society with higher average intelligence may be wealthier, insofar as productivity correlates with intelligence. But the gains many parents seek for their children may prove illusory in other respects, because the advantages of higher intelligence are relative and not absolute. . . . My decision to have a designer baby imposes a cost on you (or rather, your child), and in the aggregate it is not clear that anyone is better off. This kind of genetic arms race will impose special burdens on people who for religious or other reasons do not want their children genetically altered." Ibid., 97.

[156] Ibid., 87.

[157] It is partly for this reason that Francis Fukuyama predicts that with the expansion of genetic enhancements, the most likely short term consequences will be more abortions and discarded embryos that do not meet the desired genetic makeup. Ibid., 87.

[158] Buchanan, *Beyond Humanity?*, 245.

To encourage a positive implementation into society, it is prudent to test the enhancement at a smaller scale on *willing* participants. This must be done with an eye towards containment if the technology proves harmful. Likewise, a controlled and limited implementation will allow for a better understanding of what may happen to society if the technology is dispersed at a larger scale. Essentially, by limiting the first instances of a technology, one is attempting to curb anything that may endanger larger society. Remember, the priority is always to preserve the integrity of life – and a small scale implementation provides the best chance to preserve that integrity.

6.5.5 Stage 5: Evaluating the Results of the Proposed Enhancement

The final stage of the hermeneutic is to evaluate the results of the proposed enhancement from the small scale implementation. This is to evaluate the unintended consequences of a certain technology. Given the complexity of the world and the potential disaster that some of this technology engenders the need to adapt and possibly reverse course is paramount. However, evaluation can be a painfully slow process, and depending on the technology may take years (if not decades) to determine if the data is sufficient to conclude the relative safety of the technology.[159] Given the stakes, it is imperative that we have a full account of the effects of any extreme enhancement. Mundane enhancements, however, could possibly be evaluated in a rather quick manner.[160]

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[159] Fukuyama, *Our Posthuman Future*, 93.

[160] For example, certain types of eye surgeries to improve vision could be made rather quickly – there seems to be little reason to delay full implementation of a mundane, relatively safe, and beneficial procedure like lasik. However, this comes with the caveat that it is entirely possible that there may be future negative side-effects that are simply undetectable in the short term. In many ways, this is reminiscent of Allenby and Sarewitz's three levels of technology – we simply are incapable of predicting what happens
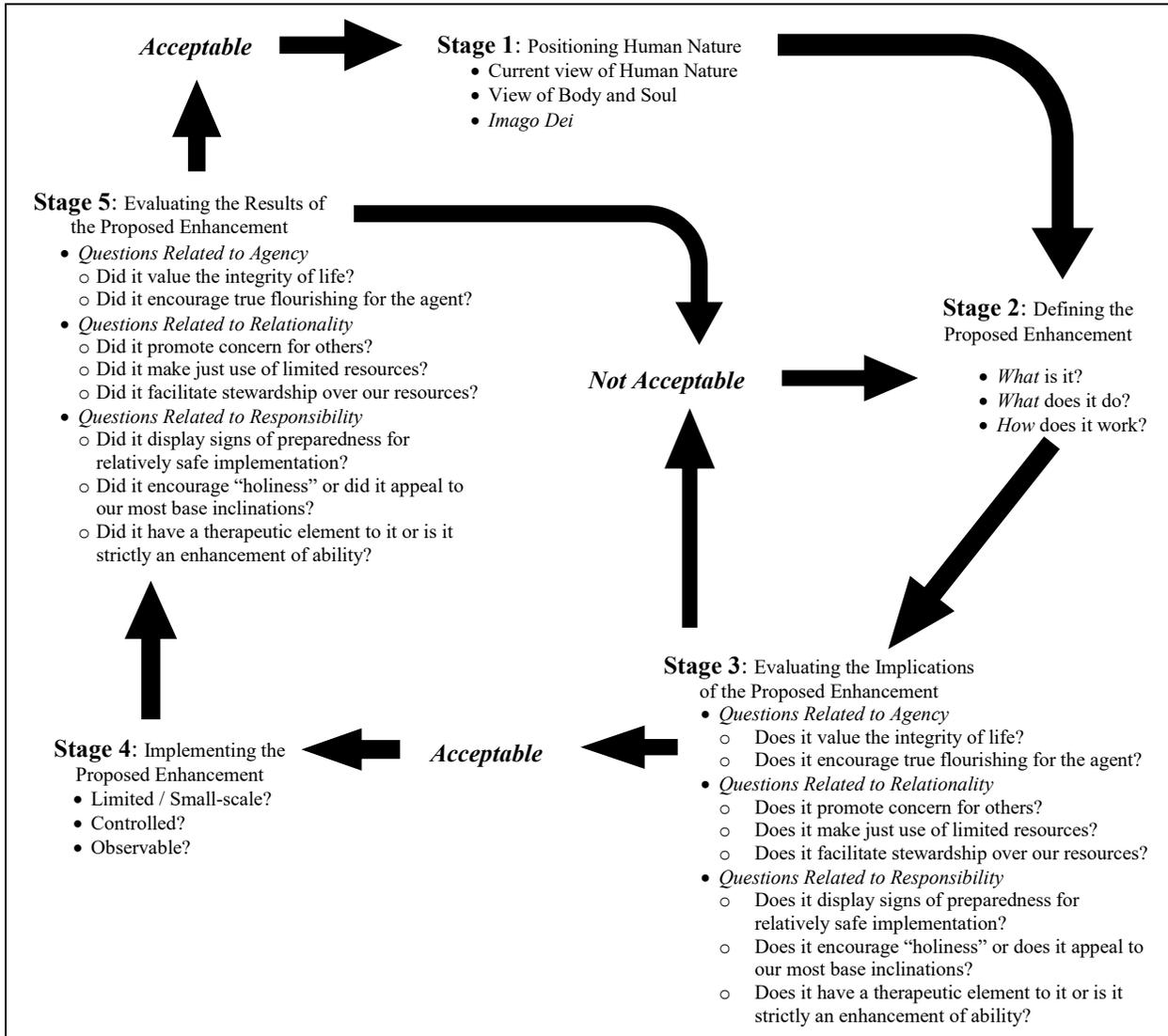
Now, *if* it is determined that the small scale implementation is proving to be beneficial, then full implementation may be warranted. The types of questions that are looked for here are similar to those found in the third stage, but instead of asking the question in the present and future tense, it phrases it in the past tense. As such, in regards to agency: *did the proposed enhancement value the integrity of life*? Likewise, *did the proposed enhancement produce true flourishing for the agent*? In regards to relationality: *did the proposed enhancement encourage concern for others*? Further, *did the proposed enhancement make just use of limited resources*? Similarly, *did the proposed enhancement facilitate stewardship over creation*? In regards to responsibility: *did the proposed enhancement show evidence of being a relatively safe procedure*? Additionally, *did the proposed enhancement encourage "good" behavior or "bad"*? Finally, *did the proposed enhancement have any therapeutic value or is it strictly an enhancement*? It is by asking these questions that the final determination can be made whether full adoption of the proposed enhancement should be made or not.

If major concerns are brought up, then the prudent action is to cease the development of the technology as it is and look to either change it or scrap it altogether. This can be a hard decision to make given that some people will have invested years of research and a lot of money in making this technology a reality. However, if that technology is proving to be detrimental to individuals and society as a whole then cessation of production is necessary.

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at Level III even though we can have a good idea of what happens at Level I but somewhat less clarity at Level II.

Finally, *if* after a thorough evaluation the benefits of the technology outweigh any detriments, then it can more readily be implemented fully into society. However, even in this full implementation it should be done only on willing participants. The pull for a new eugenics will be overwhelming at points but must be resisted. The autonomous rights of individuals to refuse treatment or enhancement must be preserved to the best of our ability. Now, once a technology has been implemented our understanding of what it means to be human will be altered ever so slightly, and it is from this new vision of human nature that the hermeneutic begins anew. The following chart (Figure 6.3) illustrates the process just described.

Figure 6.3

Acceptable → **Stage 1**: Positioning Human Nature
- Current view of Human Nature
- View of Body and Soul
- *Imago Dei*

Stage 5: Evaluating the Results of the Proposed Enhancement
- *Questions Related to Agency*
  o Did it value the integrity of life?
  o Did it encourage true flourishing for the agent?
- *Questions Related to Relationality*
  o Did it promote concern for others?
  o Did it make just use of limited resources?
  o Did it facilitate stewardship over our resources?
- *Questions Related to Responsibility*
  o Did it display signs of preparedness for relatively safe implementation?
  o Did it encourage "holiness" or did it appeal to our most base inclinations?
  o Did it have a therapeutic element to it or is it strictly an enhancement of ability?

Not Acceptable →

Stage 2: Defining the Proposed Enhancement
- *What* is it?
- *What* does it do?
- *How* does it work?

Stage 3: Evaluating the Implications of the Proposed Enhancement
- *Questions Related to Agency*
  o Does it value the integrity of life?
  o Does it encourage true flourishing for the agent?
- *Questions Related to Relationality*
  o Does it promote concern for others?
  o Does it make just use of limited resources?
  o Does it facilitate stewardship over our resources?
- *Questions Related to Responsibility*
  o Does it display signs of preparedness for relatively safe implementation?
  o Does it encourage "holiness" or does it appeal to our most base inclinations?
  o Does it have a therapeutic element to it or is it strictly an enhancement of ability?

Stage 4: Implementing the Proposed Enhancement ← *Acceptable* ←
- Limited / Small-scale?
- Controlled?
- Observable?

6.6 Implementing the Hermeneutic: A Case Study

The case study will involve the controversial issue of mind uploading – a procedure in which the mind of an individual is moved from a biologically based substrate to a computer based one. This is in many ways a subset issue of cognitive enhancement. Below we will look at two sections. The first will explore some of the background information related to the topic in order to lay out some of the promises,

pros, and cons of mind uploading and cognitive enhancement in general. The second section will provide a sample use of the hermeneutic regarding mind uploading and how it might proceed.

6.6.1 Background Information for the Case Study: Issues Related to Cognitive Enhancement

One way transhumanists propose to extend life is by *virtual immortality* – uploading our consciousness into a computer substrate.[161] This is what Ray Kurzweil proposes: "the information contained in the brain that constitutes a person's memories, experience, and personality might be digitized. . . . because the mind is not a material object, and the mind is ultimately what a person is, then it cannot be anything other than information. A personality consists of a pattern of organized data that are created and stored over time."[162] According to this approach, human brains and computers function essentially in the same way, so all that is needed, is to appropriately attune a computer to sustain biological "consciousness." This thought is not that humans are replaced by technology so much as *merge* with technology. This is already happening to lesser degrees in prosthetics and data integration. But the clearest sign that this is a reality is when we begin to see the first true cyborgs on a frequent basis. This is only an

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[161] Brent Waters, "Flesh Made Data: The Posthuman Project in Light of the Incarnation," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 291—292.

[162] Ibid., 292—293. See also Ray Kurzweil, *The Singularity is Near: When Humans Transcend Biology* (London: Penguin, 2005).

intermediary step, however, to the singularity – that moment when biology and technology truly integrate.163

There are a number of "advantages" of enhanced mechanized minds: faster processing; resistant to neurological disease / decay; and learning / sharing is made easier. There is already a blurring between human and machine in today's society. For example, think of how "attached" some people are to their smartphones. As such, there is no perceived reason why using machines to "improve" the human should not be pursued.164

The conversion of the soft tissue of the brain into the hardware of circuits is at the foundation of Kurzweil's vision of the singularity and mind-uploading. For under Kurzweil's vision, the individual must leave their biological body behind – for it is too slow, fragile, and inefficient to properly host a mind as powerful as he proposes. At the core of Kurzweil's philosophy of mind is "patternism." This is the idea that "we" are no more than the pattern of neural synapsis firing in the brain. Should a computer be able to accurately copy the specific pattern that makes you "you," then (in theory) you could have your mind uploaded to a computer. The underlying idea here is that information "can be stored, copied, manipulated, and transmitted in all kinds of ways. The idea that 'I' am just a pattern abstracts not just from bodily particulars, but from how bodies are embedded in the larger world; or, perhaps more precisely, it assumes that we live in our own heads, and we don't even need to stay there. It wipes away much of how we

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163 C. Ben Mitchell, "The Audacity of the *Imago Dei*: The Legacy and Uncertain Future of Human Dignity," in *Imago Dei: Human Dignity in Ecumenical Perspective* (Washington, DC: The Catholic University Press of America, 2013), 82.

164 Nicholas Agar, *Humanity's End: Why We Should Reject Radical Enhancement* (Cambridge, MA: The MIT Press, 2010), 41.

experience and understand ourselves and our world."[165] Thus, neuroscientists and cyberneticists (under the encouragement of Kurzweil) are trying to figure out how to get the same neural pattern operative on two different substrates. Should their efforts prove successful, then this would produce either: 1) the individual with the "full sense of self-presence"; 2) an "echo" of the individual; 3) create a "second person with a distinct self-presence"; or 4) a "pattern of data" in which there is no self-awareness.[166] The basic conviction that undergirds this entire project, however, is that the mind is to software, what the brain is to hardware.[167]

6.6.2 Applying the Hermeneutic: Mind Uploading and Module Implantation

With this background information, we can now evaluate Kurzweil's mind uploading proposal using our hermeneutic of enhancement. The first stage is to position human nature, and it is here that much of the debate is largely stunted, for there are two incompatible visions of human nature at play here. On one hand, you have the physicalist patternism of Kurzweil, in which humans are reducible to the activity of their neural patterns. On the other hand, you have the idea of ensoulment (as championed in this project), in which persons cannot be simply reduced to a single aspect of their identity – their mind, body, and soul matter. Nevertheless, due to ensoulment's rich connection with the physical body, any proposal that promises an alteration of the physical could be

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[165] Rubin, *Eclipse of Man*, 95.

[166] Matthew Zaro Fisher, "More Human Than the Human? Toward a 'Transhumanist' Christian Theological Anthropology," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 26.

[167] Hannah Scheidt, "The Fleshless Future: A Phenomenological Perspective on Mind Uploading," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 319.

considered. As such, while we may already see a potential for disagreement at this point, there is a general agreement that the human mind is deeply connected to the "hardwire" of the brain. Ensoulment may not hold to "patternism" *per se*, but it does have a strong physicalist connection to the brain. Thus, we can proceed to stage 2.

Stage 2 now looks to what the proposed enhancement entails. Here we can see that Kurzweil has multiple goals: first, he is seeking greater cognitive enhancement through better substrate material than the human brain. The human brain could be a more efficient mechanism. Secondly, this raises the possibility that human personality could be moved to a computer based substrate. For example, suppose that we are able to replace a couple of synapsis in the brain with more reliable computer chips without loss of functionality (and even a slight increase in efficiency). Now, suppose that we slowly replace more and more of the brain with more chips (again, without any loss of functionality and slight increases in efficiency with each replacement). Suppose we replaced the entire brain in this manner. Under this scenario, we will have essentially uploaded a human brain into a computer. Alternatively, one could see the scenario as being as not replacing the brain *per se*, but rather "copying" the brain through some type of brain scan and the results being transmitted to a computer. In either case, or any other scenario presented, the basic goal is to increase human intellectual capacity with the result of increased life-span through a computer based substrate.

Stage 3 looks to evaluate this proposal in light of the background information provided by stage 1. Here we can begin asking the questions related to a project that is congruent with an agency of relational responsibility. First, does the proposed enhancement value the integrity of life? This is difficult to say since we have no

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experience of what it is like to live as an uploaded mind. Given the discussion, however, mind uploading seems to prioritize one aspect of life (i.e., the rational aspect) over others (i.e., bodily experiences). Thus, while inconclusive, it seems to be the case that mind uploading does *not* favor the integrity of life for *human* persons. However, it may be the case that it *does* favor the integrity of life for *mind uploaded* persons. Put differently, mind uploading may have its own integrity of life to that type of being, but not as a *human* being.

Secondly, does the proposed enhancement encourage true flourishing for the agent? Again, this is difficult to judge, and the answer appears to be similar to the first. Because, mind uploading considers the rational aspect of existence as primarily important, other factors associated with flourishing aregenerally neglected. In this sense, then, mind uploading cannot be considered to contribute to *human* flourishing for the simple reason that it reduces human desires to only one feature.

Third, does the proposed enhancement promote concern for others? This, too, is difficult to judge since it is unclear what mind uploading implies for another – the process itself is deeply interested in only the subject, not "others" *per se*. One could say that living an uploaded experience *should* be experienced by everyone and in this sense it is concerned with others. Likewise, one could claim that by uploading their mind and become increasingly more intelligent they could help people by advising them and solving complex issues mere human intelligence could not. However, the motivation for mind uploading seems to have little to do with making *other* persons lives better rather than fulfilling one's personal desire for greater intellectual capacity and longer life.

Fourth, does the proposed enhancement make just use of limited resources? Again, the answer is – it depends. Computers do not generally involve using many resources, there is a set number of components and other than power usage, they have a relatively small "carbon footprint." So in this sense, it would not use many resources. However, the development of the technology and the research itself could be criticized as too extreme and out of touch – thus, it wastes time and money on fanciful dreams when real-world problems could better use those resources to solve problems now.

Fifth, does the proposed enhancement facilitate stewardship over our resources? Again, it depends. For again, a computer based mind would use very little resources once operational. However, again, developing mind uploading may not demonstrate the best stewardship of resources – especially to the degree it requires us to ignore or divert resources from immediate needs.

Sixth, does the proposed enhancement display signs of preparedness for relatively safe implementation? This is hard to answer as the technology has not developed far enough to answer affirmatively or negatively with any sort of confidence. Nicholas Agar has noted muliple concerns with uploading and that even if it *were* successful the wise choice of action would be to not do it as even the theoretical models for how mind uploading take place could be disastrous.[168] As such, unless there is a fully safe procedure developed to mind upload, there could be real dangers in uploading. Alternatively, there is a question whether larger society is safe upon the successful implementation of an uploaded mind. For example, perhaps upon uploading, the individual determines that some mere humans need to be eliminated for its own survival – as such, knowing who

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[168] Agar, *Humanity's End*, 57—81.

would like to see them shut down, the mind sets out to destroy would be detractors. This is a dark scenario for sure, but certainly not outside the realm of possibility.

Seventh, does the proposed enhancement encourage "holiness" or does it appeal to our most base inclinations? Considering that mind uploading is theoretically an extension of the individual's personality, it is hard to see how having one's mind transferred to a computer would make them a more moral person. It seems rather that they would simply maintain the same sorts of moral values as before the transition, and now be able to more efficiently and consistently adhere to them. As such, it seems as though any character flaw would be just as a likely to be exacerbated as it is removed. Further, there seems to be no way to guarantee that a generally moral person would not then become immoral upon uploading as their circuitry ruthlessly determines that the best way for its own survival is the elimination of certain groups. Again, this may be a bit extreme, but at the same time it is wholly within the realm of possibility.

Finally, does the proposed enhancement have a therapeutic element or is it strictly an enhancement? Mind uploading could be therapeutic as well as an unabashed enhancement. For example, someone suffering with brain cancer may see mind uploading as a way to beat cancer and continue living – thus, mind uploading would be therapeutic in this sense. Likewise, a normally healthy person may decide that they want to just live a rationally based existence in a computer and opt to upload as a blatant enhancement. As such, mind uploading may have a therapeutic element, but would be primarily seen as an enhancement.

Given the answers to these questions it would appear that mind uploading is not a moderate enhancement at all and is best classified as a radical enhancement. As such, we

have strong reasons to curb enthusiasm for such a technology. However, it must be acknowledged that there are some desirable qualities found within the mind uploading project that may still be worth pursuing. As such, we can send the project back to stage 2 for refinement. Suppose that instead of pursuing mind uploading, something more modest is attempted. This would be a low-scale general enhancement to cognition via brain implants along the parts of the brain *not* associated with personality, but with our engagement of the world – its "modules."[169]

Under the small-scale cognitive enhancement where we supplement limited and specific parts of the brain with computer circuitry we can now return to stage 3 to evaluate its efficacy. First, does the proposed enhancement value the integrity of life? The answer appears to be yes. As it is an enhancement of the abilities that we already utilize, but not so radically different that our basic experience of life would be different. We would still be primarily biological organisms with some brain prosthetics to help with cognitive actions. There would not be a wholesale change in *what* we are, nor how we experience life.

Secondly, does the proposed enhancement encourage true flourishing for the agent? Perhaps, or at least, there does not seem to be a concern that it would diminish flourishing – and there is the potential to greatly increase flourishing. Better eyesight or hearing, via module modification or even better memory would seem to be part of the very definition of what it means to have a more flourishing life.

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[169] I have in mind here the module based theory of the brain put forth by Jerry Fodor, *The Modularity of Mind: An Essay on Faculty Psychology* (Cambridge, MA: The MIT Press, 1983), and expounded by Agar, *Humanity's End*, 79—81.

Third, does the proposed enhancement promote concern for others? Again, perhaps, or at least there does not appear to be a diminishment of other people. Indeed, the development of module enhancement for the brain could positively impact many people and provide them with better lives. On the other hand, it could provide an immoral person the cognitive resources to cause great harm.

Fourth, does the proposed enhancement make just use of limited resources? At the scale of the circuitry itself, the answer seems to be yes. There would be relatively little resources used for whatever is implanted into the brain. There could still be a concern relative to the cost of researching this type of technology, and one would need to determine if the cost of pursuing it outweighs the failure to divert funding to more immediate needs.

Fifth, does the proposed enhancement facilitate stewardship over our resources? Again, the answer is perhaps, for there is little in the way of resources that would be used for the actual implants, but there may be something to be said for the resources needed for development. Again, this would be a judgment call on the part of the individual. Myself, I lean to the idea that this type of project has the potential to be a just use of resources *so long as progress is being made* (this is a slippery condition, I know). The basic idea here, is that given the goods that could come from this type of project there should be some funding, but there is no use in continuing funding if no progress is made after extensive investment. Just as, is it really worth it to continue to invest in the alchemist who keeps trying to transmute urine into gold?

Sixth, does the proposed enhancement display signs of preparedness for relatively safe implementation? Given testing module implantation may prove dangerous for the

person undergoing the procedure, but any dangers seem as though they would be isolated to those who have the procedure. So long as the persons are under careful watch during and after the procedure to test effectiveness, there seems to be a high likelihood this would be a relatively safe procedure for the individual and society.

Seventh, does the proposed enhancement encourage "holiness" or does it appeal to our most base inclinations? Module implantation seems to be neutral in this regard. It does not appear to either increase or decrease moral awareness. However, perhaps it does appeal to our desire for better living through technological perspicuity rather than reliance on God's grace. However, given how we use other technologies, this argument seems to be inapplicable here. For there does not appear to be any wholesale change of what it means to *be* a human being. Hence, the individual after module implantation would still be largely the same sinner or saint, but with a slightly better functioning brain.

Finally, does the proposed enhancement have a therapeutic element or is it strictly an enhancement? The answer here is both. There are obvious therapeutic elements to this type of proposal – someone's eyesight or hearing is diminished, but a module implant restores their natural abilities. Likewise, someone could want a straight-up enhancement to their already normally operative functions. In either case, there does not seem to be the radical change in human persons associated with wholesale mind uploading (*even if* this is the first step down that road).

Given the relative possibilities associated with module implantation, it could be fairly judged that movement to stage 4 of the hermeneutic is appropriate. At this stage, module implants would be distributed to a controlled group of individuals and monitored for a period of time to evaluate the effects of their new cognitive efficiency.

Stage 5 then asks the major question: is the proposed enhancement worth full implementation into society? Has the technology met our expectations? Has it increased awareness of the integrity of life? Has it increased human flourishing? Has it allowed for appropriate concerns for others? Has it been worth the use of resources? Has it been an example of good stewardship of our resources? Have the participants and their interlocutors been kept from harm (and have they caused harm)? Has the technology encouraged moral behavior or has it caused participants to become more self-centered? Finally, have the participants appreciated the difference in the technology in their lives (have they even noticed!)? Should the answers to these evaluative questions prove positive, then module implantation could proceed to be fully adopted into society and the resulting change to human identity would then need to be accounted for. If, however, the answer to these questions is negative – that is, module implantation has been detrimental in a number of ways, then issue goes back to stage 2 and a scaled back version of the technology is then pursued (by pharmaceutical means perhaps). In any case, this hermeneutic can help us evaluate technologies that promise to make our lives better, but may in fact have the potential to be damaging to us.

Chapter 7

Conclusion: The Impact of an Enhanced Future for Christian Theism

I become a certain kind of person in reaction to what I believe the future entails.
— Brent Waters, *This Mortal Flesh*, 151

It is very likely that the world we will have in the future will not be *exactly* the one laid out by today's transhumanists.
— Charles T. Rubin, *The Eclipse of Man*, 7

7.1 Introduction

Enhancement technologies are often championed by transhumanists and posthumanists. Indeed, as shown in chapter 1 the main vision of the transhumanist and posthumanist is to improved the human condition through "reason, science, and technology."[1] The transhumanist vision is based on the notion that our lives today are less worthwhile than they would be if we were to develop *x* technology. Should we see the value in bringing about a future and beings who are more intelligent, longer-lived, and emotionally well-rounded, then we would see the importance of their project.[2] Thus, the implementation of enhancement technologies is nothing less than attempting to control the evolution of the human species. While humans have always been shaped by their technology, with the enhancement revolution underway, there is a determination to harness technology in deliberate ways. Paul Ramsey agrees that future humans will be "both a product and a conscious agent whose dignity is exhibited by his transcendent

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[1] Stephen Garner, "The Hopeful Cyborg," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 87.

[2] Ted Peters, "Progress and Provolution: Will Transhumanism Leave Sin Behind," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 70.

control over his own evolution."[3] Enhancement technology is about the human future – it is an eschatological project of sorts.

This eye towards the "end of humanity" is revealed in transhumanist literature by recognizing the need for providing for social and individual welfare – this is a positive development. And yet most tech enthusiasts "privilege enhancements of a physical variety."[4] For indeed, this is the most obvious way to make people "better." Our physical limitations are the most readily available for enhancement. Physical abilities have an objective quality about them, but immaterial values tend to exhibit more subjectivism. As such, intelligent and honest people display incommensurate values. There is a diversity of worldviews, and this makes total agreement among people difficult – since the divergence in values often ensure some level of conflict. Hence, the differences in values have led to aggression, hostilities, and war. Now, just because we are becoming able to enhance human beings, it does not follow that we will be able to "sweep away" these incommensurate values. That is, simply by introducing and diffusing various enhancements we will not guarantee that world harmony will be the result.[5] There is even the concern that introduction of enhancements will actually make the destructive power of ill-meaning persons more efficient.

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[3] Paul Ramsey, *Fabricated Man: The Ethics of Genetic Control* (New Haven, CT: Yale University Press, 1970), 17.

[4] David Grumett, "Tranformation and the End of Enhancement," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, DC: Georgetown University Press, 2011), 44.

[5] Braden Allenby and Daniel Sarewitz, *The Techno-Human Condition* (Cambridge, MA: The MIT Press, 2011), 88.

To counter this possible outcome, enhancement proponents point out that two main ethical principles are essential for this discussion. First, we need to respect the technology produced – we must have a healthy fear and reverence for what it can do, both good and bad. We need to increase the opportunity for the technology to be used for good and deter the unwanted consequences. Secondly, we need to respect the persons producing these technologies – the vast majority of technicians want to make the world a better place and those efforts should be honored.[6]

Of course, the main problem with both of these ethical principles (as good as they are) is that the notion of "respect" is a value laden term dependent on cultural, philosophical, theological, and sociological factors. What is "respect" for one person, may not be so for another. This indicates that the "most important problems, and those most characteristic of the irreducible dilemmas of humanness, are not amenable to radically improved solutions arrived at through rational analysis by individuals or small groups. In particular, enhanced intelligence cannot tame two essential realities of the human condition: conflict over values and uncertainty about the future."[7] Enhancement proponents promote certain values (at the expense of others) in an attempt to control what the future holds (to a limited degree). However, people are both resistant to abandoning long held values as well as being thoroughly unpredictable. Thus, enhancement proponents are facing some severe headwinds. At the base of the problem is that technologies are inherently teleological – which entails certain ends and purposes.

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[6] Grumett, "Tranformation and the End of Enhancement," 43.

[7] Allenby and Sarewitz, *The Techno-Human Condition*, 88.

However, ends and purposes are wholly value laden. Hence, any given technology could be used for good or bad ends. Technology, *per se*, is thus "not an unqualified good."[8]

This project has sought to direct this complex conversation in a particular direction. Thus, in chapter 2 we examined two incommensurate ways of viewing what it means to *be* human. We expounded the physicalist and substance-dualist positions and found strengths and weaknesses to both positions. Chapter 3 expounded another possibility for considering human persons that attempted to use the best found in physicalism and substance-dualism, but avoid their weaknesses. As such, in good Aristotelian fashion, I offered the ensoulment position as an alternative to the other two as the most appropriate in light of the data and criticisms that plagued the other two viewpoints. Chapter 4 took a moral term for judging the value of human persons and again looked at two incommensurate systems of thought. The first held that "personhood alone" was the only relevant moral factor while the second denied that assertion and opted for a strict "human nature only" approach. Again, both positions were shown to have their benefits and drawbacks, and so chapter 5 was offered as a middle ground between these two positions. Ultimately, I argue that human persons are best understood as ensoled agents of relational responsibility. This takes into account not only our nature, but also our rational capacities and various relationships. With the previous chapters setting the backdrop, chapter 6 laid out a hermeneutic for evaluating enhancement technology. The hermeneutic developed in this project operates on the assumption that humans are ensoled agents of relational responsibility. Human beings

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[8] Ben C. Mitchell, Edmund D. Pelligrino, Jean Bethke Elshtain, John Kilner, and Scott B. Rae, *Biotechnology and the Human Good* (Washington, D.C.: Georgetown University Press, 2007), 15.

live in a context, and from the Christian perspective, that context is broadly theistic. Hence, from a Christian viewpoint theological considerations must come into play when deliberating the human future through technological advancement.

The remaining of this chapter discusses the fallout of enhancement technology for the future of the Christian faith. Thus, below we will first look to see why Christianity can accept "moderate" enhancements, but not "radical" (in the moral sense of the term). Next, we will reiterate the importance for using a hermeneutic of enhancement. Then, we will explore a number of concerns "radical" enhancement entails for the Christian faith – namely, "radical" enhancement is a repudiation of some Christian beliefs. Finally, enhancement technologies are contrasted with the Christian doctrine of the resurrection. As wonderful as enhancement technologies are, and as powerful as some will no doubt make us, enhancement *is not* the same thing as the Christian doctrine of resurrection.

7.2 Christians, Enhancement Technology, and the Theological Hermeneutic

Recall from chapter 6 that "moderate" and "radical" refer the moral spectrum of enhancements and *not* the actual techniques or methods themselves. As such, a "radical" enhancement refers to any technological change that would have deleterious moral side effects. In contrast, a "moderate" enhancement would in general be morally acceptable. For example, agriculture, housing, and clothing are clearly "moderate" enhancements to our lives as we all partake in such technologies – from the very wealthy to third world inhabitants – these enhancements to our lives are found the world over. As such, the "moderate" and "radical" distinctions are short-hand for describing the moral value of enhancements. It takes a specific evaluation of a given enhancement to properly label it as "moderate" or "radical" and even this is done in light of one's personal values and

worldview. Thus, the terms "moderate" and "radical" are dependent on the perspective of the one evaluating the technology. However, there are some technologies so widely accepted that their status as "moderate" is undisputed (see, agriculture, housing, and clothing just discussed). "Radical" technologies, however, are more slippery and subject to different conceptions.

Now, some people fear that technological enhancement will bring about a new species, and while this is possible, there is also the hope that technological enhancement may very well create a more egalitarian society.[9] Put differently, bringing forth a new species would appear to be "radical," but creating a more equal society would seem to be a "moderate" enhancement. Thus, creating technologies that hasten the arrival of a new species should probably be avoided, while technologies making society more equitable should be pursued. As such, the former is labeled a "radical" technology while the latter is labeled "moderate."

The Christian perspective does not necessarily reject all enhancements. Indeed, Karen Lebacqz argues that at least some enhancements should be specifically pursued because redemption is more important than either creation or its fall.[10] Likewise, as creatures made in God's image, we are in many ways "little creators" ourselves, and one way to exhibit that creative power is by overcoming certain limitations through creative uses of technology.[11] Indeed, the actions of Jesus' earthly ministry can be interpreted as

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[9] Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnological Revolution* (New York: Picador, 2002), 158.

[10] Karen Lebacqz, "Dignity and Enhancement in the Holy City," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, DC: Georgetown University Press, 2011), 55.

[11] Ibid., 57.

suggesting that we *should* overcome certain limits.[12] Jesus healed the sick, thus there is

nothing wrong with seeking therapeutic technologies. However, the Christian approach

does suggest that there are limits to the human person and that not *every* limit should be

obliterated. As Lebacqz puts it, the "true essence of human dignity lies in accepting some

limits and not working toward every enhancement."[13] Humans should not "fear"

enhancements, so long as we are mindful of our sinful state – and propensity for hubris

(more on this below). Likewise, the purpose of life is to foster our relationship with God

and with others, and technologies that do not inhibit those relationships should not be

barred.[14]

Christians can accept "moderate" enhancements for the simple reason that since

technology is not inherently evil some technologies provide real tangible goods in service

to God and others. However, just because *some* technologies should be pursued, it does

not follow that *all* technologies are good. Technological advancement is not *inherently*

beneficial, nor is technological advancement inevitably good.[15] Eschatological visions of

what is truly good and beneficial must be seen in light of God's purposes for the future,

not what we would like it to be. Thus, technologies that work "against" God's kingdom

either by inhibiting relationships with God, or others, or others with God – would be

considered inappropriate under a Christian consideration.

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[12] Ibid.

[13] Ibid., 59.

[14] Ibid.

[15] Peters, "Progress and Provolution," 81.

Just as there are concerns about how technology affects our relationship with God and others, there is also the concern with how technology can affect *us* and our rights. Gilbert Meileander remarks that Christian ethics is largely shaped by deontological concerns. Hence, there is a prevalence of notions about rights. This notion, thus, "reminds us that others can be *wronged* even when they are not *harmed*. The only freedom worth having, a freedom that does not finally trivialize our choices, is a freedom that acknowledges its limits and does not seek to be godlike. That freedom, a truly *human* freedom, will acknowledge the duality of our nature and the limits to which it gives rise."[16] Humans are to be cherished and viewed as precious in themselves and not as a means to some other end – technology should always be *for* persons, not persons *for* technology. Thus, Christians can encourage research into various technologies (e.g., genetic and nano-technology) when the purpose is to improve human health. Even the possibility for straight-up enhancements is not inherently wrong. The Christian can hold these positions because they see the ultimate transformation in the divine advent of union with God – again, so long as advances in science do not endanger our relationship with God and others, those technologies would not be prohibited.[17] That is, Christians have very good reasons to pursue therapeutic research programs and even allow for some enhancement ones – all(!) that is required is to avoid making idols of our technology.[18]

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[16] Gilbert Meilaender, *Bioethics: A Primer for Christians* (Grand Rapids, MI: William B. Eerdmans, 1996), 5 (emphasis in original).

[17] Peters, "Progress and Provolution," 82.

[18] Gilbert Meileander wisely states, "Christians therefore have no good reason to renounce the cause of medical research, but our commitment to it ought to be a chastened one, liberated from the fear that makes an idol of our hopes." *Bioethics: A Primer for Christians*, 109.

The fear of making an idol of technology is the heart of what it means for technology to be considered "radical." For "radical" enhancements and technology is pursued for the sake of the technology and not for the sake of persons. Often the issue will be phrased like, "imagine how great this tech will be for us in the future!" No doubt many enthusiasts sincerely believe this, however we should not sacrifice individual lives (or goods) merely for the promise of a future technology. We should not sacrifice many of the goods we have now for the promise of future goods – especially if the future "goods" are primarily for the sake of technology and not persons. Human persons should *always* be considered as more valuable than things.[19] For Paul Ramsey, posthumanism (and to the degree transhumanism supports it) is bad for humanity, since posthumanism's future means the extinction of humans.[20] For Ramsey, posthumanism (and transhumanism) often value things over people, and this inversion of priorities will hasten human extinction – of which there is no moral imperative to implement, and plenty of moral obligation to avoid. This is the push-and-pull of enhancement technology, part "of the pain of human life is that we sometimes cannot and at other times ought not do for others what they fervently desire."[21] Some people *really* want some "radical" enhancements, but it is our obligation to forgo "radical" enhancements in favor of "moderate" ones – even though some people may not be as pleased with this position.

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[19] Ibid., 112.

[20] Ramsey, *Fabricated Man*, 25. Ramsey uses the phrase "genetic apocalypse" to describe human extinction.

[21] Meilaender, *Bioethics*, 8.

Karen Lebacqz reminds us we must "live within our limits"[22] and the hermeneutic expounded upon last chapter is a way to help do that. We should avoid the fallacy of inevitability. That is, we should not just give up and say *que sera sera* – what will be, will be. For the transhumanist project is first and foremost "a *human* technological project, and one that is shaped by human society."[23] Because humans are the ones directing the projects (at least for the time being) the conclusions and directions of the projects are not "set in stone." Technological growth does not have its own momentum apart from human guidance.[24] Humans should continually question the direction of proposed technologies.

Christians can, and should, participate in the enhancement debate because as Lisa Sowle Cahill notes, theologians are generally very good at utilizing multiple modes of discourse "focusing especially on considerations of equity and the common good."[25] Indeed, she remarks, that theologians are "often better at narrative and prophetic discourse than at ethical and policy analysis."[26] The benefit of theological reflection in the enhancement debate, then, is a resistance to see humans as less than persons, and as a prophetic voice to those in power on behalf of the destitute.

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[22] Lebacqz, "Dignity and Enhancement in the Holy City," 57.

[23] Celia Dean-Drummond, "Taking Leave of the Animal? The Theological and Ethical Implications of Transhuman Projects," in *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement*, ed. by Ronald Cole-Turner (Washington, D.C.: Georgetown University Press, 2011), 125 (emphasis in original).

[24] Ibid., 125.

[25] Lisa Sowle Cahill, *Theological Bioethics: Participation, Justice, Change* (Washington, D.C.: Georgetown University Press, 2005), 239.

[26] Ibid.

Thus, Christian engagement in enhancement technology is to help guide research and implementation to "safeguard the sanctity of the person who is the 'image of God' (*imago Dei*)."27 For, techno-science is not neutral, "it is itself a narrative force that provides structure" in life.28 The technology pursued is done so precisely because the researcher perceives a need or want in society and sees a way to meet it. This, of course, is wholly dependent on one's value system to determine what *is* and *is not* a true need.

As such, there is an obvious need to determine which technologies should be pursued and which should not – or at least which ones should take priority over others. So long as fantastical technologies are on the horizon, there will need to be a firm grounding to reign in speculation. The headlines from the latest breakthrough whet the imagination of a scientific future, but the disappointing realities and setbacks that inevitably attend such grand promises set in. Given the complexity of these projects, setbacks are to be expected. Thus, one should neither give up hope, nor become wholly distraught when the technology does not come along as expected. Rather, what is needed is a calm and principled approach to either reinvigorate efforts to develop the technology or to recommend abandonment of the project in favor of more productive efforts.29 Amy Michelle DeBaets notes that a responsible engagement is neither an uncritical acceptance of all technology nor a wholesale rejection – rather, it is an intentional reflection of what is good for us, and what we want. As such, enhancement technology should not be a

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27 Matthew Zaro Fisher, "More Human Than the Human? Toward a 'Transhumanist' Christian Theological Anthropology," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 27.

28 Christina Bieber Lake, *Prophets of the Posthuman: American Fiction, Biotechnology, and the Ethics of Personhood* (Notre Dame, IL: University of Notre Dame Press, 2013), 75.

29 Allenby and Sarewitz, *The Techno-Human Condition*, 35.

selfish pursuit in our own interest, but should be a truly global conversation.30 The hermeneutic put forth in chapter 6 is just such an attempt.

7.3 Some Specific Christian Concerns for "Radical" Enhancement

As stated multiple times, the purpose of human life is to foster a relationship with God and others. As such, any technological project that interferes with those goals is working against God's will and should be rejected by the Christian.31 Given human frailty and hubris, "we are always in danger of substituting our own judgment for that of God."32 But given the stakes in the enhancement debate, we must resist putting ourselves in God's place. Christians trust that God knows how best humans should behave. But this narrative of trust in God, is no less than a view of what the future holds. Again, this is ultimately an eschatological discussion.

Ted Peters notes that there are two different, but complementary ways of viewing the future: *futurum*, in which sees the "future as growth, as an actualization of potentials residing in the present or past"; and *adventus*, in which the future is something new is anticipated, a new reality.33 Carl Braaten sums up the difference in light of transhumanism nicely, a "crucial difference between secular futurology and Christian eschatology is this: The future in secular futurology is *reached* by a process of the world's *becoming*. The future in Christian eschatology *arrives* by the *coming* of God's

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30 Amy Michelle DeBaets, "Rapture of the Geeks: Singularitarianism, Feminism, and the Yearning for Transcendence," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 191.

31 Grumett, "Tranformation and the End of Enhancement," 43.

32 Lebacqz, "Dignity and Enhancement in the Holy City," 56.

33 Peters, "Progress and Provolution," 74.

kingdom. The one is a *becoming* and the other a *coming*."34 Transhumanists embrace *futurum*, while Christianity, by-and-large, accepts *adventus*. That is, Christians await the coming of God's kingdom.

A postmodern *telos* of *no telos* offers modernity a way out of its dilemma: if there is no fate to be loved, then a suitable alternative can be fabricated. Moreover, those constructing this alternative fate are simultaneously reconstructing themselves. To will, rather than love, a fabricated fate is accompanied by a recreation of the one who is willing. There is no need to wait for the *Übermensch* to evolve, for a similar being can be created or engineered. Or more prosaically, to cross the postmodern divide is to enter a malleable terrain that is not only navigated by incessant shaping and reshaping, but in which the navigator too is relentlessly in flux, even merging with and re-emerging from the landscape itself. The radical plasticity of the postmodern orientation is attained because its *telos* is also its *techne*. The future will be largely what we make of it; what it is willed to be. The postmodern *telos* of *no telos* is in fact a *telos* of *techne*.35

Brent Waters, a well-known critic of transhumanism, notes well the Christian anxiety regarding technological advancement. The issue is *not* a failure to recognize the potential in such technologies – Christians can readily accept some of the advantages some technologies offer. The issue is that scientific research is not inherently progressive – this is a moral judgement that science cannot make. As Waters poetically phrases it:

> an inscrutable divine will was exchanged for an equally ambiguous human will. Belief in progress was therefore as much an act of faith as was belief in providence. Moreover, the Darwinian and Freudian glimpses into the human

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34 Carl E. Braaten, *The Future of God* (New York: Harper & Row, 1969), 29, quoted in Peters, "Progress and Provolution," 74 (emphasis in original).

35 Brent Waters, *From Human to Posthuman: Christian Theology and Technology in a Posthuman World* (Burlington, VT: Ashgate Pub., 2006), 30.

psyche suggested that any hope for a more reliable object of faith was unlikely. Human behavior did not evolve along any discernible providential or progressive trajectories, but adapted to changing environments.[36]

The problem is that world events and "scientific progress" are ambiguous. What one person calls "progress" another may call an "atrocity." Not all "progress" is really *good* – nor is *goodness* a necessary outworking of "progress."[37] And for Ted Peters, the real problem is that transhumanist proponents often do not see this ambiguity. There is great potential to help humanity, yes. But there is also great potential to do untold harm as well.[38]

Thus, many theologians fear that transhumanism removes the sense of mystery in human life. There is an impulse within enhancement circles to uncover every aspect of human living and subject it to technological dominance. Technological perspicuity is the *modus operendi* of the transhumanist – everything is subject to scientific study. Thus, mystery is removed.[39] Likewise, aspects of human life that are not subject to scientific pursuits are dismissed as either unimportant or unreal. The danger is that we are promoting "hyperhumanism," in which it is assumed we are actually able to control our own future. We often we forget how much we are at the mercy of many unknown

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[36] Ibid., 21.

[37] Peters, "Progress and Provolution," 79.

[38] Ibid.

[39] Dean-Drummond, "Taking Leave of the Animal?" 124.

forces.40 Transformation of the "heart" is not something subject to technological advancement – this is something possible only by divine grace.41

A key Christian complaint of the transhumanist agenda is its attempt to conquer death and gain (near) immortality "by human effort alone."42 A technological optimism mixed with a basic notion that people generally mean well has contributed to a mindset that both desires to change ourselves at a fundamental level and have the capability to do so. Should humanity successfully increase their intellectual capacity and longevity, then the elements are in place to further our own self-development. The idea here is that a positive feedback loop will have been created which will accelerate human evolution – in a sense, it will make humans godlike and some fear put the old religions "out of business."43 Although science is discovering that nature and human nature are more plastic than first assumed, neither is assumed to be infinitely malleable. If this were the case then any notion of progress would have to be abandoned. If the borders separating progress from regress are merely temporary constructs imposed by varying subjective preferences, then there are also no objective standards to plot the progressive direction of history.44 Transhumanism often "seems" desirable because it offers less suffering and healthier bodies, and these are goods in themselves. The extrapolation is then, why not

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40 Peters, "Progress and Provolution," 70.

41 Ibid., 82.

42 Grumett, "Tranformation and the End of Enhancement," 44.

43 Willliam Sims Bainbridge, "The Transhuman Heresy," *Journal of Evolution and Technology* 14, no. 2 (August 2005): 91.

44 Waters, *From Human to Posthuman*, 32.

have even *less* suffering and even *better* bodies (or no bodies at all!). But these further

extrapolations may actually *not* be goods *per se*, at least for human beings here and now.

Brent Waters is critical of posthumanism in general as he sees the movement as a

hyperbolic commentary on late modernity's desires.[45] He even notes that Christians

should be "rightfully skeptical of the posthuman project" since it "represents a

corruption" of the Christian faith.[46] As explored below, Waters fears that the

enhancement projects will degrade Christian beliefs like the impact of sin, the

effectiveness of certain sacraments, among other issues. Likewise, there is a fear that

enhancement will provide a false sense of security – that is, that our technology will be

able to keep us from harm. However, our greatest dangers are not just physical

limitations, but moral lapses. Thus, there is concern that enhancement technologies will

mask issues of social and political problems. Enhanced society may be blind to real

suffering given their own values.[47] Further, before electing to travel down the

transhumanist path and arrive in a technophile utopia, we should ask if it will actually be

we who get there. More likely it will be our progeny.[48] That is, the "beneficiaries" of our

technology will not be *us* but our offspring. Yet, much of the talk in transhumanist

literature is based on the assumption that the author will be the beneficiary of any

advanced research, but for the more extreme forms of technology this is quite optimistic.

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[45] Brent Waters, "Flesh Made Data: The Posthuman Project in Light of the Incarnation," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 293—294.

[46] Waters, *This Mortal Flesh*, 156.

[47] Allenby and Sarewitz, *The Techno-Human Condition*, 59.

[48] Peters, "Progress and Provolution," 70.

With these ideas in mind, we can now look to some specific concerns that Christians have in relation to "radical" enhancement technologies. There is a real concern that cultivating "radical" enhancements will affect religious belief. Now, for the average skeptic, this may be of no consequence. However, for the devout believer who has invested so much of their identity in their faith, very little could be of more importance. Technologies that strike at the very heart of their belief system creates a dilemma: accept the new tech and disregard the values they hold dear, or side with their religious values and avoid the new tech. Some of the concerns that Christians may harbor with "radical" enhancement are: first, that it cannot cure "sin"; second, it will do away with certain treasured sacraments; third, it will provide an alternative religious viewpoint; fourth, it will offer a new (i.e., "wrong") view of salvation; and finally, it misunderstands the importance of the doctrine of the resurrection. The temptation for humanity is to create "heaven on earth" but this is simply impossible as it requires the grace of God working in His own inscrutable ways.[49]

7.3.1 "Radical" Enhancement Cannot Cure Sin

The Christian doctrine of original sin has four correlative notions: 1) sin is contingent – it is not part of the original intention of what it means to be human. Humans chose (and continue to choose) sin; 2) sin is radical – sin is a continual distortion of human relationships. It distorts one's relationship to themselves, to others, to creation, and to God; 3) sin is communicable – somehow sin is able to infect persons even before they become morally responsible beings; and 4) sin is universal – *all* have sinned and

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[49] Waters, *From Human to Posthuman*, 4.

fallen short of the glory of God (Rom. 3:23).[50] That is, there is something about the sinful

human mind that lends itself to the destruction of oneself and others. There is an inner

drive to reject the things of God and subject others to our own will rather than honor

them in their own right. This basic flaw in human character cannot be overcome by

simply increasing one's intellectual capacity.[51] Doing so just makes one more efficient at

manipulating and using people for one's own advantage.

Sin distorts human relationships. It "leads the powerful to abuse" the weak and

silence the marginalized. Further, it does this in the name of the "common good." This is

why chapter 5 was so insistent that *every* "individual's dignity must be protected."[52] Lisa

Sowle Cahill comments, "Religious traditions warn us not to place too much trust in even

the most worthy human solutions to suffering, even though any humane solution should

be earnestly pursued."[53] Now, *why* would Cahill say something like this? Most likely it is

due to her conviction that the human race is inherently sinful and we tend toward selfish

motives – *even in our attempts at being virtuous*.[54] This is just to say that sin warps all

that it touches.

As Ted Peters warns, we must be honest in recognizing human sinfulness and

how its impact risks infecting *all* human activity – even in the attempt to make humans

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[50] Todd T. W. Daly, "Diagnosing Death in the Transhumanism and Christian Traditions," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 88. "*πάντες γὰρ ἥμαρτον καὶ ὑστεροῦνται τῆς δόξης τοῦ θεοῦ*" (Rom. 3:23).

[51] Peters, "Progress and Provolution," 80.

[52] Meilaender, *Bioethics*, 3.

[53] Cahill, *Theological Bioethics*, 215.

[54] Ibid., 69.

better.55 Envisioning a utopia requires a perfect citizenry. However, the "problem with all efforts to imagine a perfect world is that they usually require writers to imagine perfect people, and we have never known any."56 One of the key arguments from a Christian theological perspective is that enhancement enthusiasts fail to take into account this pervasive sense of sin and how it has deeply affected human nature.57 The Christian story is basically the redemption of humanity from the clutches of sin – sin is the chief villain in the Christian narrative. To simply ignore the chief villain in human history is not progress – it is blindness. Christina Bieber Lake comments that the traditional notion of "sin" has been replaced by the contemporary notion of "pathology."58 This is because we believe we can "cure" a pathology through concentrated scientific research. Sin, however, resists such diagnosis or cures. Sin is more than a pathology – it is a spiritual condition that affects all humans.

Transhumanists and posthumanists should not be faulted however for their desire to cure human ailments. Indeed, many of their stated goals are exemplary and honorable. The trouble comes in misdiagnosing the problem for human beings. For example, humans experience tribulations and evils, and the pain that evil causes creates a desire in transhumanists to alleviate that pain (or at least suppress its cause). This desire is not wrong, *per se*, but the solution often misses the point, because the cause is

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55 Peters, "Progress and Provolution," 80.

56 Lake, *Prophets of the Posthuman*, 169.

57 Jeanine Tweatt-Bates, "Cindi, Six, and *Her*: Gender, Relationality, and Friendly Artificial Intelligence," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 45.

58 Lake, *Prophets of the Posthuman*, 144.

misidentified.59 As such, in order to "fix" the evil of humans harming other humans, transhumanists propose both intellectual and "moral" enhancement. But the problem for much of human on human evil is not due to a lack of intellectual knowledge, nor moral unclarity – much of the evil perpetrated is wrought by intelligent people who truly believe they are doing *good* (even though they really are not). Thus, enhancement proponents often present a "thin" love for humanity that promotes quick fixes. "The problem, which is shared by social engineers and biotechnological libertarians alike, is in being led by scientism to think of individuals as patients who need their problems to be solved, rather than as persons who need to be loved and cared for."60

Social sins permeate human society. Dominant class groups, economic superiors, and sexes will attempt to entrench their power. This prioritizing of one's own "tribe" over others appears to be the definition of pride.61 Now, pride (i.e., hubris) is the "misidentification of what is actually good for a human being."62 We can really believe we are doing *good*, but in reality be doing great harm – thus, we need to always be mindful of the impact of pride on our actions and attitudes.63 Indeed, the desire to control nature through technology is often accused of being a prime example of human hubris.64 The sad reality of hubris means that the imperfections of enhancements that combine

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59 Ibid., 160.

60 Ibid., 133.

61 Lisa Sowle Cahill, "Nature, Sin, and Society," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 355.

62 Lake, *Prophets of the Posthuman*, 53.

63 Lebacqz, "Dignity and Enhancement in the Holy City," 57.

64 Fisher, "More Human Than the Human?" 25.

with human imperfections (like pride) will "create opportunities for people to take advantage of one another."[65] Hubris is a motivating factor for the dispersion of injustice in the world, and the Christian concern is that simply adding enhancement technologies into the mix will not change that.

Another problem with sin is that makes humans weak – morally weak. We prefer the "easy" road rather than the dangerous one that demands virtue. Further, our seeming mastery over technology gives us the illusion that we have overcome these weaknesses.[66] Charles Rubin remarks that because we can imagine ourselves without vice, we therefore assume that our technologies can help us achieve virtue. However, the problem is that our technology is the flawed product of flawed human beings. Thus, our technologies are likely to continue if not exacerbate some of those vices of which we so want to be rid. Stated differently, even our technologies will have the taint of human sin infecting them.[67]

Technological enhancements are framed as a solution to a particular problem. As Lake puts it, "technological enhancements are marketed with the language of illness and pathology: in each case a 'problem' is named, and a 'treatment' is prescribed."[68] Technology *per se* "does not make life better, freer, or happier." Rather, some technologies are a means to some ends that "tend to amplify the effects of our choices."[69]

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[65] Charles T. Rubin, *Eclipse of Man: Human Extinction and the Meaning of Progress* (New York: New Atlantis Books, 2014), 156.

[66] Peters, "Progress and Provolution," 80.

[67] Rubin, *Eclipse of Man*, 182.

[68] Lake, *Prophets of the Posthuman*, 132.

[69] DeBaets, "Rapture of the Geeks," 195.

We are offered the illusion that technologies make us happy, but true happiness is not found in technology. Happiness is found ultimately in God as our end and proximately in our relationships with others. Technology is never an end in itself, but always a means to some end – thus, our happiness is tied to our end. As such, technology can only make us happy in so far as it tends to our final end.

Ultimately, the neglect of sin reveals the utopian tendency in which transhumans indulge. Specifically, it reveals a type of simplicity of humanity that says that we can overcome our most basic tendencies by a strategic "deployment of enhancement technologies" in conjunction with "the maximization of individual freedom of choice."[70] But, again, the problem is that there is no justification for the belief that fundamentally selfish humans will become altruistic through the engagement of enhancement technologies. As Ted Peters notes, no "amount of increased intelligence will redeem us from what the theologians call *sin*."[71] Increased intelligence is not the same as an increase in moral fortitude nor an increase in inherent goodness. There is no reason to think our inventions will make us better, nor is there reason to think our inventions will not retain some hint of human sinfulness. Christian theology does hold to the notion of moral progress, but it is not achieved through human history or human merit, but rather by God interrupting history in the incarnation.[72] The Christian story offers a reprieve from the effects of sin because of the works of Jesus in human history. Apart from God's intervening grace in the person of Jesus, humans remain sinful, through-and-through.

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[70] Rubin, *Eclipse of Man*, 156.

[71] Peters, "Progress and Provolution," 82 (emphasis in original).

[72] DeBaets, "Rapture of the Geeks," 193.

7.3.2 "Radical" Enhancement May Restrict Sacramental Practices

There are a number of ways that "radical" enhancement *could* affect sacramental practices – especially, should we achieve Kurzweil's goal of uploading minds. Below, I describe the impact of "radical" enhancements on baptism, communion, and marriage. Interestingly, it could be possible for certain viewpoints within Christendom that may *not* be seriously impeded by "radical" enhancements to a certain degree. However, other schools of thought would be wholly dismissed. On the other hand, a nourishment of these sacramental practices could lead one to resist the siren call of "radical" enhancements. That is, these practices are taken to be so valuable that the believer would do nothing to risk their interruption.

7.3.2.1 *Baptism*

Baptism is the act of either immersing someone in water or sprinkling water on their head. When seen as either a transference of grace as in Catholicism, or as a symbolic act of obedience to Christ by many Protestants, there is a physical connection between the water and the person. As a practice, baptism predates even the Christian message as evidenced by John the Baptist's ministry in the Jordan River. The Catholic Catechism holds that baptism is a necessary act for one to obtain salvation (*CC* 1257). Others, like John Calvin, take baptism to be "a sign and evidence of our purification" and not the cause of our sins being cleansed, since it is Christ's blood that takes away our sin.[73] However one understands the necessity or purpose of baptism, the historical

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[73] John Calvin, *ICR*, Bk 4, 15.1-2. This does not mean that baptism could not be a *means* of grace, but rather that it is primarily a sign and seal of what Christ has done in the life of the believer. It does deny that water has any *inherent* salvific properties. See Charles Hodge, *Systematic Theology* (Peabody, MA: Hendrickson Pub., 2008), 4:588—589.

instances of baptism tend to show a necessary connection for the practice to include both water and a bodily person. An "uploaded mind" can neither be submerged under water nor sprinkled on the head – as there is no physical "body" present.

In addition, there is also the problem of conferring the sacrament to the uploaded mind and not just the inability of receiving it. How would a pastor or priest go about baptizing an "uploaded mind"? Let us examine some different ways this could take place.

First, let us suppose that the pastor / priest is flesh and blood and the "uploaded mind" downloads their consciousness into an artificial body. This seems the most promising way of maintaining the practice as there is an actual act of baptismal motions taking place. The pastor / priest confers the grace of baptism to the artificial body that is housing the "mind" of the individual. However, it can be questioned how efficacious this would be since there is no necessary connection between the artificial body and the "mind" of the one desiring baptism. We recognize the connection between the mind and the body of mere physical people in which we interact with on a daily basis. Yet, this connection is severed if a "mind" can move to another body. Then again, some philosophical positions of dualism are widely accepted by Christian believers today, and yet hold this exact view. Alvin Plantinga and Richard Swinburne both hold minds can theoretically "switch" bodies.[74] Thus, it seems that some forms of non-Catholicism, at least, may be more easily adaptable to this form of baptism, whereas Catholicism, holding to a more traditional Aristo-Thomistic understanding of form and matter, would

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[74] Alvin Plantinga, *The Nature of Necessity* (New York: Oxford University Press, 1974), chapter 6. And Richard Swinburne, "Dualism and Personal Identity," in *Philosophy of Religion: A Reader and Guide*, ed. by William Lane Craig (New Brunswick, NJ: Rutgers University Press, 2002), 502.

probably consider the separation of mind and body too radical to confer any real grace to the "uploaded mind."

Second, let us suppose that the pastor / priest is communicating with the "uploaded mind" via some virtual reality program, like "Second Life."[75] In this instance there is a further separation from the physical world as any motions of baptism would simply be digitally manifest. Hence, no real water would be present, but instead just the digital representation of water. The pastor / priest and the individual seeking baptism would likewise be digital manifestations interacting in this virtual medium. Again, it would seem Catholicism would not consider this baptism since there is no actual form / matter unities involved. Just representations. Indeed, Catholic teaching holds that baptism *must* include the "true and natural" form of *water* – which would exclude virtual water.[76] Hence, there could be no real grace transferred as there would be nothing for grace to be transferred from or to. Some forms of Protestantism on the other hand may still be able to say that this is baptism since many claim that baptism is merely symbolic (though a highly significant symbol!) of one's commitment to Christ. Martin Luther even commented that there were other types of baptism besides water baptism.[77] Hence, these Protestants may not have a problem with virtual water (which is a symbol for real water) being used to baptize a digital person (which is a symbol for a fleshly person), since

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[75] See http://secondlife.com (accessed June 15, 2016).

[76] See *The Catholic Encyclopedia Online*, s.v. "Baptism," http://www.newadvent.org/cathen/02258b.htm (accessed Nov. 9, 2015).

[77] Martin Luther, *Table Talk*, "Baptism" CCCXL, http://www.reformed.org/master/index.html?mainframe=/documents/Table_talk/table_talk.html (accessed June 15, 2016).

baptism itself is just a symbol of a particular relationship. For these Protestants a symbol of a symbol can remain the same throughout the sacrament.

Finally, let us suppose that both the pastor / priest and the individual are simply interacting as "uploaded minds." In this scenario, there are no actual or virtual motions of baptism. No water or virtual water. This interaction occurs at the speed of processing power. As there is no actual practice that takes place, all that changes is the mere conveyance of affirmation (information?) from the pastor / priest to the one desiring baptism. And even this too, is near instantaneous. It has more in common with sharing a data file than anything remotely recognizable as a sacramental practice. Under this scenario, it would appear that both Catholics and Protestants have no resources to navigate the sacramental landscape – as there is, in fact, no landscape whatsoever.

7.3.2.2 Communion

Like baptism, Communion / Eucharist has a physical component to it as well. Here one takes bread and wine (or as the case may be a wafer and grape-juice) and ingests it in obedience to Christ so as to be "in Him." Like baptism above, the Lord's Table has been variously interpreted to be a means to confer divine grace, or symbolically link the partaker of Communion to the Lord that it represents.[78] Much like baptism, Communion too relies heavily on the physicality of the action[79] and so it too is subject to the same limitations as expounded previously.

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[78] "Communion with the Body and Blood of Christ increases the communicant's union with the Lord, forgives his venial sins, and preserves him from grave sins" (*CC* 1416). John Calvin calls the sacrament a symbol, see *Institutes of the Christian Religion*, Bk 4, 17.3.

[79] Indeed, the Catholic Catechism calls bread and wine "essential" to the practice (*CC* 1412).

For example, suppose that a pastor / priest is naturally physical but the worshiper is, again, an uploaded mind. How is the uploaded mind to partake in Communion? Again, perhaps utilizing an artificial body would solve some of the issues as the body could be used as the medium by which the mind "eats" the body of Christ. The same lines of demarcation reappear here as they do with baptism. Catholicism would seem to be resistant to such a notion of the Eucharist since there is no essential connection between the body performing the sacramental act and the mind controlling the body. Some non-Catholics, again, may be able to justify this type of Communion under some strong dualism so that there is no "real" difference between a natural body and an artificial body – at least in relation to the mind of the person.

Further, the same sorts of options appear to emerge if both the pastor / priest and the uploaded mind meet in a virtual world. Again, a virtual Communion would be a sacrament of virtual bread and virtual wine. Catholicism's notion of transubstantiation simply cannot support this virtual instance of the Eucharist, for how can digital bits *become* the body and blood of Christ (*CC* 1413). Classically speaking, transubstantiation follows upon the Aristo-Thomistic distinction between substance and accidents. As such, the substance of the bread and wine become the body and blood of Christ, but maintain the accidents of bread and wine (*ST* 3a2ae.75). Such an explanation carries no credibility in a digitized world of ones and zeros. And yet, here again, some Protestants are in a unique position to say that virtual communion might still have merit. Again, for these Protestants if communion is a symbol of Christ's broken body, then whether the person partakes in real bread or virtual bread, all that matters is partaking in something that symbolizes Christ's sacrifice. As such, some Protestants may not only

allow for, but may in fact endorse this form of virtual baptism and communion as wholly compatible with the Christian faith.

Finally, we can consider what happens with just the uploaded minds of the pastor / priest and the worshipper. And again, it seems as if this form of the sacrament is impossible for both Catholics and Protestants as there is no sacred moment, just a file transfer.

7.3.2.3 Marriage

Protestants typically do not see marriage as a sacrament the way Catholics do, even though it is considered a sacred covenant. For our purposes, however, the similarities regarding the importance and purpose of marriage sufficiently overlap to make a point. For both Catholics and Protestants, marriage is seen minimally as a covenant between people bound to honor, respect, and encourage the other in spiritual growth. Historically, this has meant that the married couple provides the foundation for a stable society by being the embodiment of a smaller society. The marriage relationship was held to provide the best way to raise children in an environment that trains them to become responsible and valuable citizens. Likewise, marriage and parenthood became a way to pass down traditions, customs, morality, and social attitudes. Until recently, this implied that marriage was only possible between males and females, as this was the only viable means of producing the next generation of citizens.[80]

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[80] I am not interested in delving into the same-sex marriage debate, but I do want to point out, that in the uploaded mind scenario we are considering, the primary reason given to uphold traditional marriage (i.e., that it provides the only viable means of reproduction) no longer holds value as uploaded persons are actually *asexual*. Biological markers and delimiting factors play no role for an uploaded mind. It is quite literally impossible to have a male or female computer program. An uploaded mind may "identify" their gender as masculine or feminine, but the biological markers of x and y chromosomes play no role in the

Having said this, however, "marriage" as an institution will almost certainly end for computer based consciousnesses. There will literally be no need for marriage. For how would a digital mind even view what marriage *is*? Marriage, in our modern society, is little more than state sanctioned "coupling" – a government endorsed relationship. The line between couples dating and being married has sufficiently blurred that were it *not* for the existence of the marriage certificate itself (and for some, a Church sanctioned event), many outsiders may not even be able to tell if a given couple is married or not. Marriage has thus been mostly emptied of its sacred and socially significant content. And there is no reason to think that uploaded minds would alter this modern view on marriage. Rather, they will just take the next logical step and not get married.

Paul Ramsey echoes traditional Christian thought when he says that sex is at once both a procreative and unitive act of love.[81] And thus, any ethic "that *in principle* sunders these two goods . . . pays disrespect to the nature of human parenthood."[82] But some of our technological enhancements have absolutely "sundered" these two goods. By focusing on our intellectual lives and downplaying our fleshly ones, many transhumanists deny in effect (if not outright) the procreative act of sex.[83] Ramsey notes that Christian teaching has never seen procreation as a "selfish gratification," instead it is a duty for

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identity of who the person is if they have been uploaded. As such, "marriage" in an uploaded mind scenario wholly bypasses the traditional vs. same-sex marriage debate.

[81] Ramsey, *Fabricated Man*, 32.

[82] Ibid., 33 (emphasis in original).

[83] Martine Rothblatt makes the argument that posthumans will have divorced sex from biology and reproduction. Martine Rothblatt, "Mind is Deeper Than Matter: Transgenderism, Transhumanism, and the Freedom of Form," in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Malden, MA: John Wiley & Sons, 2013), 318—319.

"future generations."[84] This is not to say that some (or even many) Christians have not

had children for selfish reasons. Rather, he is saying it is part of Christian teaching that

procreation is theologically bound with subduing the Earth under the lordship of God.

Thus, Christians have a duty to future generations both in bringing them about and

leaving them with resources with which to thrive.

God created the world through His self-giving love, thus parents procreate

through a similar self-giving love. As Ramsey puts it, this love for one another "is a trace

of the original mystery by which God created the world because of His love."[85] God in a

very real sense "bound" Himself to the world, and the same sort of binding is found in

marital love – exemplified in the "nature of human sexuality."[86] Ramsey goes on to note

that this binding is none other than the language of covenant. Humans are created to be in

covenant with God and with each other. But the Christian notion of covenant is directly

related to that which tends toward Christ, from whom we are created and in whom we

have our very being (John 1:1; Col. 1:15-17). As Ramsey puts it, Christians then see the

telos of sex as being Christ Himself.

> They will find in the strength of human sexual passion (beyond the obvious needs
> of procreation) an evident *telos* of acts of sexual love toward making real the
> meaning of man-womanhood, nurturing covenant-love between the parties,
> fostering their care for one another, prefiguring Christ's love for the Church—
> whatever other substrata of purposes sexual energy may have that can be
> discovered by intending the world as a biologist. And in human procreativity out
> of the depths of human sexual love is prefigured God's own act of creation out of
> the profound mystery of his love revealed in Christ. To put radically asunder what
> God joined together in parenthood when He made love procreative, to procreate
> from beyond the sphere of love (AIDS, for example, or making human life in a
> test-tube), or to posit acts of sexual love beyond the sphere of responsible

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[84] Ramsey, *Fabricated Man*, 35.

[85] Ibid., 38.

[86] Ibid.

procreation (by definition, marriage), means a refusal of the image of God's creation in our own.[87]

Due to the reductionism prevalent in our scientific culture, the "bonds and connections" that Christians see as essential are eroded away. Replaced with an "atomistic individualism" the traditional bonds of marriage in self-giving love and procreation are removed.[88] Self-gratification in pursuit of individual orgasm takes the place of the sacred act within in a covenant relationship. Now, this is not to say that transhumanists or posthumanists may not frequently develop strong bonds of companionship. Indeed, given some views of emotional enhancement, these bonds may even be emotionally stronger than experienced today. Rather, the concern is that the very foundation for the marital arrangement (and sex) will be divorced from its original moorings.

In the posthumanist future, marriage as a covenant relationship between two people for the procreation of humanity and establishment of a family unit will become a relic of the past. For once (if?) we reach that point in the technological future, then artificial wombs will replace flesh and blood pregnancy. That is, if there is any actual reproduction at all, since some versions of the future have us living a digitally based existence, and in that particular scenario, any "reproduction" would be digital and not biological. If mind-uploading were to become a reality and minds can change substrates at will, then sexual reproduction will have been effectively eliminated. As Amy Michele DeBaets points out, if uploading were to become reality, then reproduction "comes to be overtaken, morphing into self-dissemination."[89]

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[87] Ibid., 39.

[88] Ibid.

[89] DeBaets, "Rapture of the Geeks," 187.

7.3.3 "Radical" Enhancement Offers an Alternative Religious Viewpoint

Transhumanist Anders Sandberg notes that some deliberately "constructed transhumanist religious systems" exist.[90] He says, the "idea of 'doing God's work' in perfecting creation or humanity shows up repeatedly [in transhumanist literature], both in an explicit theist context and in secular versions."[91] That is, transhumanism has been in some ways adopted into a quasi-religious belief. A few others have tried to combine transhumanism with traditional belief systems. For example, there is a "Christian transhumanist" organization, in which Christianity *is* the true transhumanism.[92] Yet, other strands of transhumanism can be described as religious, even while it maintains significant differences from traditional faiths. However, overlap can be found in the fact that both religion and transhumanism attempt to overcome our current and limited condition. Transhumanists and Christians often have similar desires for transcendence. Further, there is a similarity in praxis – Christians engage in sacramental acts, transhumanists engage in technological pursuits.[93] Likewise, there can be similarity of thought between traditional religions and transhumanism in "metaphysical, soteriological, and eschatological interests."[94] Put simply, transhumanism has emerged on the scene as an alternative to traditional religious belief systems – complete with a rich and different means of salvation, eschatology, and metaphysic.

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[90] Anders Sandberg, "Transhumanism and the Meaning of Life," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 6.

[91] Ibid., 18.

[92] Ibid., 6. See also, http://www.christiantranshumanism.org/ (accessed April 13, 2016).

[93] Fisher, "More Human Than the Human?" 25.

[94] Sandberg, "Transhumanism and the Meaning of Life," 5.

Jeffrey Bishop comments that the "ontotheology" (i.e., ontological theology) of transhumanism is not easily accessible for scrutiny. This is because to question the posthuman future is to call into question the evolutionary process and the philosophical naturalism that undergirds the scientific method – this is unacceptable, and can be treated the same as a medieval heresy. Further, questioning the posthuman future seems to subjugate the will to something less than its own desired freedom – that is, it implies the will wishes to be in bondage, a silly notion. Further, Bishop comments that questioning the posthuman future seems to cast doubt on all of the gains from the Enlightenment and its modern progeny, liberalism and humanism. As such, to challenge the posthuman future is in a sense to expose oneself as a bio-conservative, anti-intellectual, fear mongering luddite. Put simply, to question the posthuman future is to question the posthuman ontotheology which is to question the posthuman god, and this is nothing less than "a contemporary sacrilege."[95]

The transhuman and posthuman ontotheology is thoroughly physicalistic (i.e., philosophical naturalism – there is no supernatural being, God). The implication of this position is that *everything* that exists is "natural." And since everything is "natural" everything is in a state of becoming. Whether this this by "chaotic" means or evolutionary power (the ever present guiding telos in a *non-teleological* explanation) or

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[95] The "ontotheology of transhumanism does not easily permit itself to be open to deep questioning about what counts as desirable in our posthuman future. To question the posthuman future is to question evolution and scientifically grounded ontology; to question the posthuman future is to question our liberty to become what we will. To question the posthuman future is to question all the good that has been produced from the Enlightenment, liberalism, and indeed humanism. After all, who can be against relieving the human estate? One becomes ridiculous, a luddite when questioning enhancement. To question the posthuman future is to be ridiculous, to be a bioconservative . . . , a priest or sage pedaling in fear, telling precautionary tales . . . . To question the posthuman future is to question the theological grounding of transhumanism; to question the posthuman future is to question the post human god, a contemporary sacrilege." Jeffry P. Bishop, "Transhumanism, Metaphysics, and the Posthuman God," *Journal of Medicine and Philosophy* 35 (2010): 717—718.

by human will, all that matters is that everything is a resource for the human will – for it is the human will that has become the posthuman god. For as Bishop comments, the "proponents of transhumanism wish to acknowledge that they desire nothing different than what religious traditions have sought for millennia, namely to transcend human limitation, to commune with the gods."[96]

Thus, transhumanism cultivates a different view of creation and God. Technological advances give humans the mistaken notion we can control all of nature. Since "technoscience assumes that nature exists solely for the forces it can produce, it does not and cannot reveal the world outside of the frame of these types of questions, outside of its experimental paradigm."[97] The transhumanist to the degree that they are philosophical naturalists are bound to a particular view of the universe. They are literally "boxed in" by their epistemological convictions – nature is, and can only be, understood in a particular and limited way. But this view also extends to God, as Philip Hefner asks, what does it say about God if the techno-human cyborg is in the image of God?[98] It probably says something about how we see technology as a mode to the divine. Indeed, Hefner relays this sentiment well. He says that technology "is one of the major places today where religion happens. Technology is the shape of religion, the shape of the cyborg's engagement with God."[99]

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[96] Ibid.: 716.

[97] Lake, *Prophets of the Posthuman*, 76.

[98] Philip Hefner, *Technology and Human Becoming* (Minneapolis, MN: Fortress Press, 2003), 79.

[99] Ibid., 88.

Transhumanism attempts to maintain a sense of order and progress in light of the Darwinian randomness of evolution. Darwinian evolution does not brook any notion of progress – this notion is imposed on it from the outside. But it is precisely the randomness of Darwinian evolution that transhumanists resist. As such, Rubin notes a paradox of sorts in transhumanist thought: on one hand, it rejects Darwinian evolution as determinative of human destiny, while on the other hand, accepting it as the basis of human origins.[100] Due to this acceptance of how nature works, transhumanists are inclined to reject nature and mold it to their will – again, under the guise of this is what humans do: we shape and harness nature. However, in pursuing this avenue, transhumanists reject any religious foundations of value and must appeal to social constructive norms. This, however, leads to unpredictable results as human beings are notoriously self-interested creatures. The fallout is that by appealing to changing social norms, the transhumanist appeals to no norms whatsoever. Indeed, nihilism seems to be the only appropriate position.[101]

Gilbert Meileander remarks that the human efforts in scientific advancement are not themselves redemptive – even though they are often good for society. This is because God has created humanity to deal with suffering in a particular (and mysterious) way. The Christian story is that God takes suffering upon Himself in the person of Jesus – an act that no other god makes. Thus, no other god(s) can sufficiently deal with the suffering that defines much of our lives.[102] Nicholas Agar notes a bit of irony in the transhumanist

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[100] Rubin, *Eclipse of Man*, 158—159.

[101] Ibid., 159.

[102] Meilaender, *Bioethics*, 109.

pursuit of enhancement. He remarks that the transhumanist hope for scientific explanations that will enable "radical" enhancements has all the earmarks of a search for "revealed wisdom."[103] It is a faith in scientific progress, not in a supernatural deity. Put differently, the transhumanist faith that science will make us better resembles the eschatological hope in religious systems that some deity will make everything right in the end.

It is no secret that transhumanists tend towards some form of scientism, the view that "a number of beliefs and attitudes that elevate science to a supreme level of epistemic and ontological authority and, in its most extreme manifestations, to an almost godlike status."[104] Some of these beliefs are that the methods of the "hard" sciences are the only means to "achieve validity" and, thus, "science" as an empirical endeavor "is the only really valuable part of human knowledge and culture."[105] Traditional religious positions are then by definition found lacking, for there is no physical experiment that one can run to (dis)prove God's existence. Because religious claims are outside the realm of empirical observation, they cannot be the basis for any knowledge and can, in fact, be seen as contrary to knowledge. Religion is often depicted as inherently opposed to scientific knowledge. It is claimed, one cannot be both scientific and religious (in a traditional sense). Thus, some transhumanists have come along and attempted to "marry" science and religion by making science the object of religious devotion. Religion cannot be opposed to science in this view, since the religion *is* science.

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[103] Nicholas Agar, *Truly Human Enhancement: A Philosophical Defense of Limits* (Cambridge, MA: The MIT Press, 2014), 108.

[104] Mitchell, et al., *Biotechnology and the Human Good*, 147.

[105] Ibid.

Related to scientism is *technicism*, the view that sees all reality reducible to the technological – all problems and their solutions are susceptible to correction by applied engineering and technology. As Stephen Monsma states it, "Technology is a savior, the means to make progress and gain mastery over modern, secularized cultural desires. . . . More specifically, technicism is marked by three key characteristics or beliefs: (1) technological change— the development of ever more complex, ever more sophisticated technological objects—is inevitable; (2) such change represents progress, leads to improved conditions for humankind; and (3) there are technological solutions to the problems engendered by technological change."[106] Salvation is viewed as technological mastery. It is something we bring about via our own ingenuity. This is quite different from the traditional Christian notion that salvation does not come by works, but by faith in God.

Transhumanism has an eschatological dimension to it (as already shown above), and this eschatology forms the basis for the direction of the technology developed. There is a hope that through our scientific research that we can ease human difficulties and cure human deficiencies. In other words, there is a hope that technology will make us whole (or at least more of what we desire to be). But this aspect of hope is not like the traditional religious view of hope. As Lake explains, the classical virtue of hope was based in the recognition that people are directed by a higher power, *not* by themselves.[107] The transhumanist version of hope inverses this – it makes hope dependent on our

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[106] Stephen V. Monsma, *Responsible Technology: A Christian Perspective* (Grand Rapids, MI: Eerdmans, 1986), 49—50.

[107] Lake, *Prophets of the Posthuman*, 176.

abilities, not at the direction of a higher power. To the degree that we have a future, it can be truthfully said that we do not fully know ourselves – for there is a part of us that has yet to be determined. Who I become is largely dependent on the choices I will make in concert with choices already made. But this means that my future is fuzzy to me (though it may not be to God!). I simply do not have access to my future attitudes, nor the conditions and situations that will forge my "self." But what affects me, also affects all human persons. We are all ignorant of our futures. As such, overt confidence in human abilities to bring about a particular ending are misplaced. We simply do not have the knowledge or wisdom to make any sort of confident prediction about what the future holds.[108]

As discussed above, sin is a primary element to the Christian worldview – especially in how it affects the world. As such, from a Christian perspective any transhumanist religion *must* take into account human sinfulness, which of-course means that enhancing human intelligence does not alleviate the human proclivity to sin. While transhumanists are aware that humans do not always act the best, there is a general reluctance to accept that sin is as pervasive as Christians claim. Instead, transhumanists tend to focus on the positive actions and attitudes of human persons. For example, Russell Blackford criticizes Ted Peters as overplaying the idea of sin in human lives. Blackford says, "humans are not universally inclined to malice and spite" only a "small minority" of humans are like this. Indeed, he says that Peters is simply wrong and is "operating with a philosophical anthropology that is unrealistically blind to the strong

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[108] Harold W. Baillie, "Aristotle and Genetic Engineering: The Uncertainty of Excellence," in *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition*, ed. by Harold W. Baillie and Timothy K. Casey (Cambridge, MA: The MIT Press, 2005), 229.

human propensities for sympathy, cooperation, and compromise."[109] Christian theology, while not denying that humans can do some good things, has historically understood Blackford's confidence in human goodness as the one that is mistaken. Sin taints human actions – even good ones.

Another issue contrasted between Christianity and transhumanism is the issue of scientism – the idea that science is the *only* means to gain knowledge. Of course, the traditional Christian response to any form of scientism is that as great a tool as science *is*, it is not the "end all of knowledge and human experience."[110] There are aspects to human knowing that are simply beyond the empirically verifiable. This was covered in chapter 2. Transhumanism has taken quasi-religious overtones even while often operating in competition with traditional religions. It offers its own soteriology, eschatology, and metaphysic which is often incompatible with the historic Christian position. Thus, we can see why some theologians are wary of the inroads from "radical" enhancements.

7.3.4 "Radical" Enhancement Offers an Alternative View of Salvation

The posthuman project exhibits "the mentality of apocalyptic eschatology."[111] And the "techno-scientific *eschaton*" is infused with human technology intended to heal our wounds, and meet our desires for something approaching perfection. It is a search for

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[109] Russell Blackford, "Trite Truths about Technology: A Reply to Ted Peters," in *H+: Transhumanism and Its Critics*, ed. by Gregory R. Hansell and William Grassie (Philadelphia: Metanexus Institute, 2011), 186.

[110] Mitchell, et al., *Biotechnology and the Human Good*, 148.

[111] Hava Tirosh-Samuelson, "Utopianism and Eschatology: Judaism Engages Transhumanism," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 164.

the Kingdom of God achieved by human ingenuity.112 Waters comments that the posthuman salvation narrative goes as follows: humans are essentially patterns of information that constitute the mind and will, but this pattern of information is currently confined to a biological body that is ill equipped for preserving the pattern of information. As such, the body is something to be abandoned or changed into a more appropriate substrate. "In short, humans must save themselves from their finite and mortal bodies by building a superior prosthetic of the will."113

This posthuman salvific narrative places science as the object of faith. The posthumanist has *faith* that through our scientific pursuits we will overcome certain ailments. They have *faith* that science will be able to solve their deepest problems. The issue, from a Christian perspective however, is that science can resolve any problems that are under the purview of science, but science cannot really give answers to existential questions.114 To paraphrase Carl Sagan, science can tell you how the heavens go, religion tells you how to go to heaven. From a Christian perspective, the answers to questions like: how should we live? Who are we? Where are we going? What is our purpose? Why are we here? are simply beyond the bounds of scientific inquiry. These are philosophical and theological questions, not scientific ones. Hence, searching for the answers to these questions through technological means is a wholly inappropriate use of technology.

The problem with elevating technology to salvific status is that it makes a priesthood out of the scientific community – a magisterium that cannot be contradicted

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112 Ibid., 165.

113 Waters, "Flesh Made Data," 294.

114 Lake, *Prophets of the Posthuman*, 135.

on pain of public humiliation and verbal flogging. It makes physicians dispensers of salvation, not caregivers. It turns technology into the sacraments of grace. The hard truth is that by mixing these categories, we have made technological matters, moral matters. Indeed, there may be times when it is inappropriate for someone to always get what they want. But by conflating technology with religion it makes it more difficult to refuse someone what they desire.[115] Lake comments that desire for enhancement may reveal self-contempt.[116] For the only reason to seek enhancement is a dissatisfaction with who and what you currently *are*.

"Radical" enhancement makes physicians little saviors and scientists priests, however it should be obvious that physicians *are not* saviors – at best they are clever at cooperating with nature to heal patients from certain ailments. The problem as far as Meileander sees it is that the power of physicians gives patients a false sense of invulnerability – I can do what I want, because medicine will always be there to "fix me up." This attitude is a disaster "for our spiritual Health" since it puts faith in modern medicine rather than the Great Physician.[117] It should be obvious that science cannot "solve" all ailments.[118] Some wounds can only be cured by the touch of God. For all of its wonders, technology cannot solve all of humanity's problems, for not all of our problems are susceptible to engineered solutions.[119]

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[115] Meilaender, *Bioethics*, 8.

[116] Lake, *Prophets of the Posthuman*, 59.

[117] Meilaender, *Bioethics*, 9.

[118] Lake, *Prophets of the Posthuman*, 132.

[119] Ibid., 136.

The enhancement debate takes mainly two approaches. The first uses technology in an attempt to free us from our physical and cognitive limitations – this is the basic approach of transhumanism. The second approach wants to use technology to alter humans physically and cognitively far beyond the current limitations – this is the basic approach of posthumanism. Patrick Hopkins notes that these two approaches create a "salvation paradox." That is, transhumanism is unlikely to *save* us, while posthumanism is unlikely to save *us*.[120] He states the problem this way. Transhumanism offers a form of soteriology – an escape from the (frail) human condition. But the cost of this technological soteriology is a transformation of both human nature and identity. As such, *if* we remain human through the technological change, then we will never quite escape the frailty of our human vestige – hence, technological enhancements cannot really *save* us (in an ultimate sense). We will always need newer and better enhancements. However, by utilizing radical enhancement technologies and embracing a posthumanist future we may do away with the human frailty, but only at the cost of doing away with humans – hence, radical enhancements cannot really save *us*.[121] Transhumanism is unlikely to *save* us, because we will remain as limited beings and thus be compelled to want *more*.[122] Posthumanism is unlikely to save *us*, because we will no longer be the beings we were before.

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[120] Patrick D. Hopkins, "A Salvation Paradox for Transhumanism: *Saving* You versus Saving *You*," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 72.

[121] Ibid., 79.

[122] Ibid., 76.

As already stated, the transhumanist faith in technology *is* an act of faith. It is a faith that claims technology is the means to better individual, social, and political progress. It will allow us to make the environment more hospitable to humans – or change humans to better relate to a hostile environment. Technology is the way to make things better. Michael Burdett calls this the "myth of progress" and it holds "that not only does technology transform society and the economy for the better, but also individual human experience can be affected directly through bodily enhancement."[123] However, believing in the myth progress is a religious action.[124] And this belief shapes the actions of enhancement enthusiasts. Thus, the problem with "radical" enhancement is that it attempts to solve difficulties by making persons in ways they were never made to be.[125] For example, humans are social creatures, but one concern for mind uploading is that it will make us radically unsocial beings – this would hardly be an enhancement. Likewise, take indefinite life-spans: humans may live forever with God, but this would be in an alternate state of being, it is not entirely clear what an indefinite life-span would do to a person who is functionally the same as we are *now*. We may long for death and find it elusive. Brent Waters takes it that the main problem with the myth of progress is that it is based on an erroneous anthropology that reduces human beings "to a will trapped in a body."[126]

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[123] Michael S. Burdett, "The Religion of Technology: Transhumanism and the Myth of Progress," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 142.

[124] Ibid., 143.

[125] Lake, *Prophets of the Posthuman*, 149.

[126] Waters, "Flesh Made Data," 295.

The alternative salvation offered by "radical" enhancements cannot be ignored by Christians. For the Christian, God is sovereign and all power and authority lay with Him. Thus, any attempts to claim sovereign power for ourselves (by pride or technology) is "playing God" and quickly condemned.[127] Ultimately, salvation is not an escape from this world or a limited reprieve from our condition in it – instead, salvation is the fulfillment of the world and a redemption of our condition.[128] The Christian hope of salvation is a redeeming of this world, not its abandonment. But this redemption is brought about by God's power, not human cleverness. The Christian notion of embodiment and salvation are quite different than this posthuman notion of salvation.[129]

7.3.5 "Radical" Enhancement is not the Same as Resurrection

The doctrine of original sin (as briefly discussed above) notes the continual temptation to embrace our own control over reality – hubris. We must constantly be aware of our creaturely tendency to want control. Likewise, "insofar as transhumanism is a manifestation of humanity *sicut deus* [like God – as opposed to *imago Dei*, the image of God], it exposes sin as the root cause of the quest to defeat death through technology."[130] For the physicalist, death is neither to be hoped for nor feared, thus fear of death is irrational.[131] Nevertheless, life is an undeniable good and we all have a natural instinct to

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[127] Lebacqz, "Dignity and Enhancement in the Holy City," 56.

[128] James C. Peterson, *Changing Human Nature: Ecology, Ethics, Genes, and God* (Grand Rapids, MI: William B. Eerdmans Pub., 2010), 48.

[129] Waters, "Flesh Made Data," 295.

[130] Daly, "Diagnosing Death in the Transhumanism and Christian Traditions," 93.

[131] Ric Machuga, *In Defense of the Soul: What it Means to be Human* (Grand Rapids, MI: Brazos Press, 2002), 25—26.

survive, and if given the choice to either die or live longer we are imminently rational for choosing to live longer. As such, some proponents of "radical" enhancement have targeted death as the number one enemy of human existence. For death is the ultimate cessation of the freedom of the will. Hence, various strategies are pursued in an effort to circumvent death – either cybernetics, biological replacements, pharmaceuticals, or mind uploading.[132]

Since humans are beings with unusual powers of reasoning and foresight, we can anticipate death in ways other animals do not. Thus, we have a stronger imagination for what death entails and hence a great motivation to avoid it.[133] Both Christianity and transhumanism are united in the notion that death is the "final enemy" – that death should be defeated and reversed.[134] However, they take different approaches to how death should be treated. For Christians, death is understood through the narrative of Jesus' death and resurrection. Through Christ's death we find reconciliation with God, but through the resurrection we have the promised defeat of death. "Christianity adopts a more prosaic stance toward death that is guided by the narrative of the redemption and reconciliation of humankind through God' activity in Jesus Christ. Christianity proclaims Christ's victory over sin and death in his bodily resurrection and ascension. Death has been defeated (1 Corinthians 15)."[135] Christians link death as intrinsically associated with sin. Transhumanists do not. And this fundamental difference exposes the disparity between

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[132] Daly, "Diagnosing Death in the Transhumanism and Christian Traditions," 86.

[133] Agar, *Truly Human Enhancement*, 161.

[134] Daly, "Diagnosing Death in the Transhumanism and Christian Traditions," 83.

[135] Ibid., 87.

Christian and transhumanist responses to the reality of death. Christians view death as a consequence of a moral reality – that is, as a consequence of rebellion to God. Transhumanists see death as a material reality only – there is no moral connection for why death exists.[136]

However, the *seeming* Christian acceptance of death here and now is problematic for transhumanists. For it would appear that any proclamation that hints at accepting death is "defeatist from a transhumanist perspective."[137] Thus, transhumanism and posthumanism seek in many ways to overturn death. The idea is that there is no theoretical reason for not subverting any given "cause" of death. Given enough technical know-how, any biological cause of death can be overcome. As Daniel Callahan states "No cause of death has been declared beyond hope; none could be. All of the known causes of death can, in principle, be picked off, one by one."[138] But as Meileander points out, the Christian is strangely "ambivalent" to this project.[139] Christians certainly have contributed to the prolongation of life – often in obedience to their faith – since death "threatens to separate us from the One for whom we are made."[140] Yet, Christians also believe that it is ultimately God who overcomes – and *has* overcome – death in the

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[136] Ibid., 93.

[137] Ibid., 87.

[138] Daniel Callahan, *The Troubled Dream of Life: Living with Mortality* (New York: Simon & Schuster, 1993), 75. Quoted in Meilaender, *Bioethics*, 108.

[139] Meilaender, *Bioethics*, 108.

[140] Ibid.

resurrection of Jesus. The danger, as Meileander sees it, is that medical success in prolonging death encourages people to make an idol out of medical advancement.[141]

To take just one example from transhumanist literature to escape death, we can look at radical life extension and the injustices it is likely to present. Now, radical life extension will likely be possible only by pursuing morally questionable tests.[142] People are more apt to avoid loss than pursue gains. As such, normally healthy people are less likely to volunteer for research in pursuit of life extension unless there are reasons to think that the procedures are relatively safe. As Agar puts it, "Conventionally healthy people will want an anti-aging therapy to have been extensively tested on other conventionally healthy people."[143] The problem with anti-aging research and solutions will be primarily concerned with side-effects. When life-extension is the goal – with the assumption that the life being extended is relatively similar to how we are alive now – it is no good to offer a procedure with detrimental side-effects in other areas. For example, should we develop a procedure that extends telomeres but also increases our odds of cancer, this would hardly be a trade-off that someone is likely to risk. To die of cancer rather than old age is hardly a bargain worth pursuing. In order to test procedures for life-extension enhancements, researchers will need many healthy test subjects – not terminal subjects. Persons already sick are generally more willing to volunteer for risky and untested procedures since they figure they have "little to lose, and much to gain." However, life-extension enhancements *must* operate with a control group of *healthy*

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[141] Ibid., 108—109.

[142] Agar, *Truly Human Enhancement*, 114.

[143] Ibid., 126.

subjects. Agar fears that the only reasonable pool of test subjects will come from the poor

and underprivileged who may see the "benefits" of participating in (possibly dangerous)

clinical trials as their only option. The rich and powerful will not need to participate in

clinical trials, rather they will wait until the procedure is relatively safe and predictable.

The poor and underprivileged, however, will not be able to wait nor refuse the promise

and possibilities that come with participating in clinical trials.144 Thus, a dilemma is

established. Agar notes:

> Those who should be eligible to be volunteer risk pioneers for SENS [Strategies
> for Engineered Negligible Senescence] face a practical dilemma. We can say that
> they are either interested in SENS and desire to see it progress, or they are not.
> Those who are not interested in SENS are likely to find other outlets for their risk
> pioneering. Those who are interested in SENS and want to see it progress are
> likely to be especially averse to the specific kinds of sacrifice its form of risk
> pioneering demands. They are being asked to put at risk precisely the thing—the
> possibility of a long life span—that commitment to SENS assumes. . . . Promoting
> the cause of SENS requires risking precisely the thing—one's health—that they
> must be interested in to want to sign up in the first place.145

Radical life extension, whether through SENS or mind-uploading or what have

you, will require a transformation of what it means *to be* human. Indeed, there is a strong

case to be made that upon achieving indefinite (or radically lengthened) life spans, the

person may no longer *be* human (and may have actually become posthuman). Charles

Rubin, for instance, notes that should we achieve some sort of technological

"immortality" this would "fundamentally alter what it means to be human."146 For in this

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144 Ibid., 128—129. Agar goes on to note how important the need for volunteers are needed to test risky life-extension (SENS) procedures. He says, "SENS requires that we recruit sufficient numbers of volunteer risk pioneers to satisfy the testing requirements of clinical trials on seven independent lines of research on the fundamental causes of aging." Ibid., 132—133.

145 Ibid., 134—135.

146 Rubin, *Eclipse of Man*, 63.

instance, that individual would be a far superior example of a long-lived individual. However, this type of transformation is inferior to the type that is hoped for by the Christian notion of the resurrection. The Singularity, while indeed an impressive technological milestone, would not achieve *true* transcendence, for it would still be *this worldly*. No matter how advanced the life extension measures are taken, no matter how long one is able to live (in whatever condition), they would "imprisoned within a time bound universe."[147]

The doctrine of the resurrection teaches something wholly different. It teaches that a physical body is changed in peculiar ways that allows it to relate to God and others. It operates in a redeemed universe – resembling the current one, but changed in some way. The ancient theologians had different views on what this state would be like. Origen, for example, understood that throughout life our material bodies are constantly changing. How, then, can the body be raised? He appealed (in good Platonic fashion) to the *eidos* the unchanging form of the body. It remains the same as we grow from infancy, through childhood and adulthood, to old age. Hence, despite the body's material transformations, its *eidos* remains the same throughout.[148] Origen, thus held to an essentially non-physical resurrection. Shortly after Origen, Gregory of Nyssa (though differing from Origen in some respects) held that in the resurrection our bodies will be freed from all the consequences of sin—including not only death and infirmity, but also deformity and difference of age.[149] Hence, in Gregory we see the idea of the resurrected

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[147] Grumett, "Tranformation and the End of Enhancement," 46.

[148] Gilbert Meileander, *Body, Soul, and Bioethics* (Notre Dame, IN: University of Notre Dame Press, 1995), 38—39.

[149] Ibid., 39.

body being freed from the deleterious effects of sin. Saint Thomas reacts against Origin's notion of resurrection, and affirms a completely *physical* resurrection. "Therefore, the body will be the same in species after the resurrection as before. And so it has to consist of flesh and bones and other parts of this kind" (*SCG* 4.84.4).[150] This physical notion of the resurrection is the standard belief in Catholic, Protestant, and Orthodox churches.

Now, the belief in the resurrection of Jesus as the "firstborn" is a promise for the redemption of all creation – not just human resurrection.[151] Nature is to be transformed, not trashed. This based in the idea that God's original creation is good, but corrupted. God salvages what was made, He does not start from scratch. Humans especially are given special status as God's image bearers and are thus said to have a special destiny in relating to God by resurrection. This is the primary reason why embodiment is so important to Christian thought, and this idea undergirds the rejection of transhumanist thought that makes humans merely patterns of information. This disparity also shows that for Christians embodiment is a reminder and condition of our frailty before God – that we are finite and limited creatures, dependent upon God for ultimate fulfillment.[152]

Brent Waters observes that Christians have a twofold understanding of mortality. The first is that while death is the end of our earthly life, it represents the beginning of our eternal fellowship with God – which is, of course, our *end / telos* which is good.

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[150] Thomas Aquinas, *Salvation*, vol. 4 of *Summa Contra Gentiles*, trans. by Charles J. O'Neil (Notre Dame, IN: University of Notre Dame Press, 1975), 321. "*Erit ergo idem corpus secundum speciem post resurrectionem et ante. Et sic oportet quod sit consistens ex carnibus et ossibus, et aliis huiusmodi partibus.*"

[151] Peterson, *Changing Human Nature*, 47.

[152] Stephen Garner, "Christian Theology and Transhumanism: The 'Created Co-creator' and Bioethical Principles," in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, ed. by Calvin Mercer and Tracy J. Trothen (Denver, CO: Praeger, 2015), 234.

Secondly, Christians should not fear death, but they should not go seeking it either.[153] Even though Christians should not embrace death, mortality is not humanity's greatest curse.[154] An unexplained assumption of the transhumanist agenda to achieve indefinite lifespans is whether happiness can be achieved by simply adding more years to life. "No one associated with transhumanism ever seems to question the main assumption that people who live longer with younger cells will necessarily live happier or more rewarding lives."[155] Christian theologians are likely to deny that life-extension or "cybernetic immortality corresponds to the biblical vision of resurrection from the dead. . . . Our redemption through resurrection into the new creation does not correspond to physical longevity or cybernetic immortality."[156]

Whatever medical advances we make in life extension, we are and will remain finite creatures. As Meileander points out, we long for God, not just "more life." As such, death must be addressed by everyone in every age.[157] This would even apply to the transhumanist and posthumanist future. Indefinite lifespans are not the same as resurrection. Indeed, there are a number of reasons one may wish *not* to live for an indefinite time. Bernard E. Rollin gives four: 1) indefinite lifespans will alienate one from love and friendship; 2) indefinite lifespans open the individual up to intense ridicule and resentment; 3) they would be subject to constant heartbreak as family and friends die;

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[153] Waters, "Flesh Made Data," 297.

[154] Ibid., 298.

[155] Lake, *Prophets of the Posthuman*, 170.

[156] Peters, "Progress and Provolution," 73.

[157] Meilaender, *Bioethics*, 109.

and 4) the absence of death may actually lead to a loss of meaning in their life.[158] David Grumett marks the sad irony of these types of "radical" enhancement projects, "by denying the possibility of a transcendent infinite acting on humans, the transhumanists deny to finite humanity the very infinite end they seek to attain for them."[159]

7.4 Enhancement and the Hope of Resurrection

It should be clear at this point that the Christian notion of resurrection *is not* the same as that of the technologies produced through various enhancement projects. Enhancement, no matter great or useful, will always be limited to *this* world – they can *never* be truly transcendent even while offering a similitude of it. Because enhancement technologies are so captivating for the goods they promise this side of eternity, they are often condemned by those who see a danger in making our technologies idols. There is a fear amongst theologians that we will look to our technologies to save us rather than simply help us. We will (and do) look to our technologies to control nature rather than cooperate with it.[160] We have shifted our religious focus and devotion from the creator of the heavens and earth, to our creations. Thus, in pursuit of happiness, wholeness, and fulfillment through enhancement technologies, we miss out on our true and ultimate end – fellowship with God. The stakes are of eternal consequence.

Transhumanists appeal to our desires for a better world, but as Charles Rubin notes, they often abandon those promises in favor of "incomprehensible outcomes." As he puts it:

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[158] Rollin, "Telos, Value, and Genetic Engineering," 332.

[159] Grumett, "Tranformation and the End of Enhancement," 47.

[160] Waters, *This Mortal Flesh: Incarnation and Bioethics*, 122.

When appealing to common sense, transhumanists promise a better world in humanly comprehensible terms. However, their own assumptions lead them to abandon those promises in favor of willful change toward incomprehensible outcomes. They promise that science and technology will provide us with more of whatever it is we want more of at any given moment—and it is indeed hard to deny the attraction of that promise to people like us. The hitch is that people like us are not going to be around to enjoy it. Indeed, we are not even supposed to see our elimination as a cost at all, but as a great benefit. At least, for the transhumanists, this outcome is in some fashion necessary, and we are supposed to accept that technological might dictates right. The transhumanists believe that their ideas represent *progress*— not just technological progress, but progress in the much larger sense of humankind fulfilling its ultimate destiny (a destiny of overcoming itself).[161]

The problem, of course, is that not only is "progress" an ambiguous term dependent on one's worldview, but also that we must overcome "ourselves" – a seeming impossibility. Humans do the best they can and attempt to obtain "the good" as best they know how. Yet, no matter what we do the strongest people we know become weak, the young grow old and die, species go extinct, great civilizations rise and fall, and humanity is no less part of this process. Though we may achieve some of "the good" through our technological might, it will always be temporal and limited.[162]

It has been noted that life is really just preparation for death. Only the rare soul catches a glimpse of "the good" this side of that chasm, and until the eschaton arrives, death is the means of achieving a true vision of "the good" that awaits those in God, for it is death that frees the soul to see God.[163] Likewise, it is through suffering that our character is shaped. Gilbert Meileander reminds us that though suffering "is not a good thing, not something one ought to seek for oneself or for others. But it is an evil out of

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[161] Rubin, *Eclipse of Man*, 163 (emphasis in original).

[162] Waters, *This Mortal Flesh*, 121.

[163] Ibid.

which the God revealed in the crucified and risen Jesus can bring good."[164] Stated differently, our limitations can be used to develop the character of ourselves and others so that we may all be better prepared for our ultimate destiny in union with God. As such, Meileander continues, we should care for those that suffer, "but we should not imagine that suffering can be eliminated from human life or that it can have no point or purpose in our lives. Nor should we suppose that suffering must be eliminated by any means available to us, for a Good end does not justify any and all means."[165]

What this hope in resurrection and the beatific vision imply is that "Our true humanity is *eschatological*."[166] We are beings with a purpose – a goal. Stephen Garner notes that transhumanism and posthumanism often mirror Christian concerns and hope for a better future.[167] What is different is the means to achieve that better future. For the Christian it is hope in God's grace and mercy. For the transhumanist and posthumanist it is in technological expertise. But, nevertheless, as eschatological beings we can look to Christ's resurrection as the prototype for how the new heavens and earth will be. Jesus' resurrection provides the framework from which we can understand our place in the world and in God's creation. It provides the hope for a better tomorrow in light of today's troubles. It provides the groundwork for a truly flourishing life in light of God's actions in redeeming creation.[168]

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[164] Meilaender, *Bioethics*, 7.

[165] Ibid., 8.

[166] Lebacqz, "Dignity and Enhancement in the Holy City," 58 (emphasis in original).

[167] Stephen Garner, "Christian Theology and Transhumanism," 229.

[168] Waters, *This Mortal Flesh*, 126.

The resurrection of Jesus is the pattern for those that follow. The immortality of the resurrection is not like that of enhancement technologies. Ben Mitchell et al. remark that the "*telos* for humans is, therefore, not *post*humsin but *fully* human, without the presence, power, and penalties of sin. Human life, as it was intended to be, will be attained."[169] It is a complementary doctrine that the immortal soul will ultimately rise again in the resurrection, and this belief can be found not just in Christian thought but also in some Jewish traditions.[170] The soul at death exists in God's presence until the final resurrection at which time the soul is reunited with the body and the person becomes whole. In the meantime, however, we live in a paradox of sorts. We can imagine the fulfillment of this event, but we live with the frailty beset a body in sin. The Christian hope is that by God's grace His Kingdom will come and redeem what is corrupted. This eschatological hope is the underpinning for the belief in the resurrection.[171]

However, none of this is to be taken to mean that enhancement technologies *should not* be pursued *per se*. Indeed, this project has set out to develop a way to properly explore enhancement technologies from a Christian perspective – for there are *real* goods in not only developing therapeutic measures for people, but also enhancements. Commenting on Revelation 21—22, Lebacqz states:

> If 'all things' are made new, this must include human beings ourselves, and thus there is reason to embrace enhancement that takes away pain, death, and limits on human life. We are *meant* to transcend our limits, to draw close to God, to live in the 'Holy City' described in the Book of Revelation. Doing so does not threaten our dignity but rather expresses precisely what our human destiny and dignity are intended to be—a life of abundance . . . , in which all are included . . . , all are fed

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[169] Mitchell, et al., *Biotechnology and the Human Good*, 153 (emphasis in original).

[170] Terrence L. Nichols, *The Sacred Cosmos: Christian Faith and the Challenge of Naturalism* (Grand Rapids, MI: Brazos Press, 2003), 135.

[171] Peters, "Progress and Provolution," 79.

> . . . , God dwells at ease among the people . . . , and all 'accursed things' disappear.[172]

"Moderate" enhancements are part of what it means to be a good steward of God's creation. They can offer a foretaste of the heavenly treats, but will always pale in comparison. It is my hope and prayer that this project can contribute just a bit toward being a good steward of God's creation as we harness human ingenuity for the betterment of all.

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[172] Lebacqz, "Dignity and Enhancement in the Holy City," 58 (emphasis in original).

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