

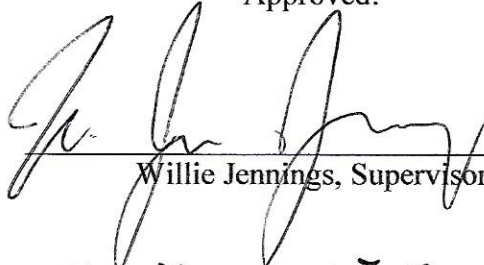
Virtue, Vice, and Western Identities:
A Thomist Approach to the Sins of White Power

by

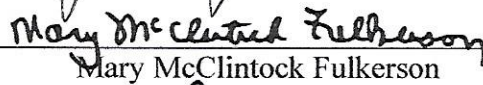
Joshua M.K. Goocey

August 28, 2017

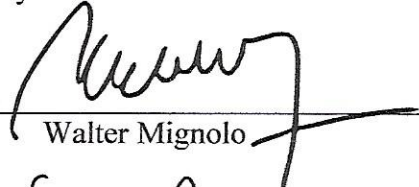
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M. Shawn Copeland

Dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor of Theology
in the Divinity School of Duke University

2017

ABSTRACT

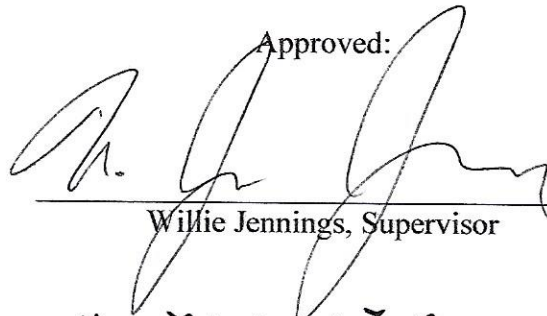
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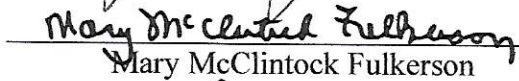
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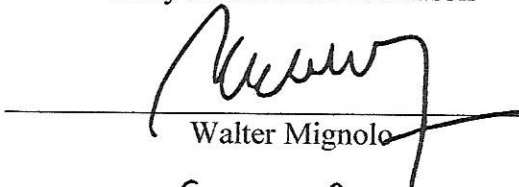
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ABSTRACT

How did our world's wealth become so unevenly distributed? How did a small group of Europeans and Americans manage to acquire and retain so much wealth while so many others struggled to acquire enough to sustain their basic life functions? Why did some individuals desire to accumulate massive amounts of wealth? In answering those questions, this dissertation first examines the *physical, emotional, intellectual, and social* forces that inhibited wealth acquisition and the technologies that overcame those forces. The primary technologies under consideration are not of the mechanical type, like guns and steel. This dissertation primarily examines social technologies that relate to practical human action: patterns of buying and selling, rhythms of speaking, and structured systems of ideas about truth, goodness, and beauty. I call these action and idea patterns “technologies” because they were, like all technologies, intentionally constructed over an extended period of time, and they served a critical function. They executed valuable work and facilitated wealth accumulation. After examining the essential forces working against and the technologies working for wealth accumulation, this dissertation uses slave narratives and the theology of Thomas Aquinas to explore how distorted human passion, in the form of greed, served as a principle motive force in unjust wealth accumulation. Finally, this dissertation attempts to construct a Christian anthropology that redefines human life and purpose in order to heal greed distorted passions.

If we see the truth of one thing in the cosmos, we see the nature of the cosmos. Because of our mindfulness, our deep looking, the nature of the cosmos will reveal itself. It is not a matter of imposing our ideas on the nature of the cosmos.¹ –Thich Nhat Hanh

Now, where is the moon that will shine a light
on this dark stage of the human theater,
so that the human intellect
may come to find what it has lost?² –Rumi

To win deliverance is a matter of unraveling the causal pattern that underlies our bondage, and this process begins with understanding the causal pattern itself. . . The whole process ends only when its underlying springs—ignorance, craving, and clinging—are extirpated by wisdom.³ –Bhikkhu Bodhi

Grant to me, O Lord my God,
that I may not falter in times
of prosperity or adversity,
so that I may not be exalted in the former,
nor dejected in the latter.⁴ –Thomas Aquinas

¹ Thich Nhất Hạnh, *The Heart of the Buddha's Teaching : Transforming Suffering into Peace, Joy & Liberation : The Four Noble Truths, the Noble Eightfold Path, and Other Basic Buddhist Teachings* (New York: Broadway Books, 1999), 81.

² Rūmī Jalāl al-Dīn, Kabir Edmund Helminski, and Ahmad Rezwani, *Love's Ripening : Rumi on the Heart's Journey*, 1st ed. (Boston: Shambhala Publications, 2008), 20-22.

³ Bodhi, *In the Buddha's Words : An Anthology of Discourses from the PāLi Canon* (Boston, Mass.: Wisdom Publications, 2005).

⁴ St. Thomas Aquinas, *The Aquinas Prayer Book: The Prayers and Hymns of St. Thomas Aquinas*, trans. Robert Anderson and Johann Moser (Manchester, New Hampshire: Sophia Institute Press, 2000).

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INTRODUCTION

In 2007, a Disciples of Christ church in Wilson, NC called me to serve as their Senior Pastor. Wilson was distinct among cities in the American South because in the 50's and 60's it boasted having one of the largest tobacco markets in the world, and, as one would imagine, a town with such a long and prosperous agricultural history also had a long history of racial segregation.

My church was one of the large, downtown churches, that was filled with mostly teachers, political leaders, and business executives. They were all white, they all lived in the suburbs, and the contents of their everyday lives were very different from the lives of the men and women who lived in the church's surrounding neighborhoods. The churches immediate neighbors were almost exclusively black and Hispanic, and they were all living at or below the poverty line.

The economic disparities in Wilson were glaringly obvious. A study of the town's Census data reveals the predictable statistics. On average, single white people earn \$21,816 per year; whereas black singles earn an average of \$11,135. Median household income among whites was \$41,517 and \$22,191 for blacks. Of the 17,261 housing units occupied by whites, 12,915 own their home, and 4,346 people rent. Only twenty-five percent of whites rent, while seventy-five percent own their home. The converse is true in the black community. Of the 10,599 housing units occupied by black families, 4,356 own their dwelling, and 6,243 rent. Fifty-nine percent of black families rent, while only forty-one percent own their homes. These facts directly correlate to poverty in the community. Of the 74,000 people in the community, 3,145 white people fall below the poverty line, while 9,079 black people fall into the same situation.

What causes the disparity? As a seminary student, I was taught that identity stereotypes and biases (like racial and class biases) were the explanation, and that proposition came to function on the level of common sense for me. In Wilson, all you had to do was look around. However, what is common sense to some people isn't common sense to others. Most of my parishioners didn't grow up in landowning families. They grew up "dirt poor" in share cropping families. As sharecroppers, their parents worked closely with poor black families of similar economic means, and these close working relationships placed them in proximity to black neighbors, which yielded frequent interaction. White children played openly with blacks, and black women frequently served as nannies to the white children. Even though my parishioners and their parents were constrained by the same economic conditions as black families, many of them eventually went to college and obtained professional jobs. Some of them even became extraordinarily rich. Why didn't black people do the same?

How do we explain that disparity between the economic outcomes of white and black people? Why is there a difference? Did my white parishioners succeed economically because of their race? Again, race does seem to be the logical answer because the disparity correlates to racial difference and a racial past marked by violence and injustice. Many of my parishioners resented the idea, however, and, because I was so young, I resented them for resenting the idea . . . and for being racist.

IDENTITY ADVANTAGES EXPLAIN WEALTH DISPARITY: THE LIBERAL THEORY

White privilege. Male privilege. First world privilege. Class privilege. These phrases reverberate loudly and often in the American public square. Liberal theorist in a variety of academic disciplines contend that identity advantages, like racial advantage, exist and that they exist in multiple forms. Consider economic advantages as an example; some

scholars focus on how economic advantages correlate with specific *social positions* that are the opposite of oppression and that produce a positive subjective experience of life. In her *Introduction to Sociology*, Margaret L. Anderson maintains,

In general, the most economically privileged young people see their activities as more like play than work, whereas those less well-off are more likely to define their activities as work. Likewise, White youth (boys especially) are more likely than other groups to see their lives as playful. The researchers interpret these findings to mean that being economically privileged allows you to think of your work as if it were play.¹

Others, foreground the connection between various identities that are advantageous because they confer *preferred social status or normative social status*.² Some scholars highlight the connection between racial advantage and acquiring economic *goods*, various kinds of opportunity, political influence, and/or social benefits. Peggy McIntosh's article, "White Privilege and Male Privilege is paradigmatic. McIntosh likens racial and gender "privilege" to an unearned "invisible weightless knapsack of special provisions, assurances, tools, maps, guides, codebooks, passports, visas, clothes, compasses, emergency gear, and blank checks."³

For McIntosh and most scholars who write on the subject, privilege, is largely a destructive and oppressive social force, operating clandestinely to advance the economic and social interests of white people. Macintosh points out that privilege works to make

¹Howard F. Taylor Margaret L. Andersen, *Sociology: The Essentials*, 7 ed. (Cengage Learning, 2013), 102.

²C.f. Ibid., 232. Carl A. and Elisabeth Zwiier Grant, "Intersectionality and Education.," in *Encyclopedia of Diversity in Education*, ed. James A. Banks (Thousand Oaks, CA: SAGE Publications, Inc., 2012), 1265. Patricia Banks, "Cultural Capital,"ibid. Frances E. Kendall, *Understanding White Privilege : Creating Pathways to Authentic Relationships across Race*, 2nd ed., Teaching/Learning Social Justice Series (New York: Routledge, 2013), 70.

³Peggy McIntosh, "White Privilege, Male Privilege," in *Privilege: A Reader*, ed. Michael S. Kimmel and Abby L. Ferber (Boulder, CO: Westview Press, 2010).

white people feel at home in the world while alienating others; to free them from the penalties and dangers that others have to contend with and putting them into positions of power where they can dominate or ignore others; to help them escape fear, anxiety, insult, anger and injury; over rewarding them while simultaneously damaging them; to save them from having to hide, or be in disguise, or feel sick or crazy; to confer power but not moral strength.

WHITE GUILT, MORAL PURITY, AND POLITICAL CONTROL: THE CONSERVATIVE REBUTTAL

These arguments are contested, condemned, and met with anger, especially the arguments about racial advantage in America. Dennis Prager, syndicated radio host and frequent to the conservative news magazine *National Review* typifies this position when he demands “rational inquiry” into the claim that white privilege exists; after all, he opines, millions of high school and college students are being indoctrinated by professors who say that white people somehow have a greater chance of achieving the good life because of their race. Ultimately, he concludes, “The assertion turns out to be largely meaningless. And, more significantly, it does great harm to blacks.” How does he conclude this? Evidence! If white privilege existed, “Why would whites commit suicide at twice the rate of blacks. White men, who the Left argues are the most privileged group of all in America, commit seven out of every ten suicides in America.”⁴

If white people didn't, in fact, have an advantage over people of color, then why would they claim such a thing? Prager offers arguments that mirror Shelby Steele, a black, conservative research fellow at Stanford's Hoover Institute. Steele contends that “the great trick of modern liberalism is to link its poetic truths [about black victimization] (false as

⁴Dennis Praeger, "The Fallacy of 'White Privilege'," *National Review*, <http://www.nationalreview.com/article/431393/white-privilege-myth-reality>.

they may be) with *innocence* from all the great sins of America's past—racism, sexism, imperialism, capitalist greed, and so on. . . ."⁵ Fundamentally, Steele argues that white liberals invented "white privilege" and the ongoing oppression of darker skinned people as a means to claim moral authority: "We confess that we white people are sinners (racists), living in and supporting a system that unjustly harms others, and because we see that and admit it, we can live with a clear conscience." Or so Steele's argument goes.

For Steele, however, white guilt goes deeper than absolving the white conscience. He argues, "White guilt is not angst over injustices suffered by others; it is the terror of being stigmatized with America's old bigotries To be stigmatized as a fellow traveler with any of these bigotries is to be utterly stripped of moral authority and made into a pariah."⁶ Not only does failure to admit white guilt result in social exclusion and personal stigmatization, but it also excludes one from political power, which is, in Steele's mind, white guilt's animating force, "It occurred to me that race had dramatically changed the terms by which political power is won and held in America. . . . Today America is puritanical rather than relativistic around racism. . . . The very legitimacy of the American democracy in this post-civil rights era now requires a rigid, if not repressive, morality of racial equality."⁷

Some argue that proving—i.e. supporting with evidence—the correlation between white advantages and economic success with concrete evidence presents immense

⁵ Shelby Steele, *White Guilt: How Blacks and Whites Together Destroyed the Promise of the Civil Rights Era* (New York: HarperCollins Publishers, 2006), 20.

⁶ "The Exhaustion of American Liberalism: White Guilt Gave Us a Mock Politics Based on the Pretense of Moral Authority," Wall Street Journal, <https://www.wsj.com/articles/the-exhaustion-of-american-liberalism-1488751826>.

⁷ *White Guilt: How Blacks and Whites Together Destroyed the Promise of the Civil Rights Era*, 4-5.

difficulties. Most of my parishioners disputed the claim. Indeed, the *actual, material disparities* between white people and those of darker skin hues is irrefutable, *but* drawing a causal line from the racialized past to present disparities proves illusive, in part because some of the black members in the community followed a path similar, although not identical, to the white sharecropping children. They went to college and became lawyers and business owners. If some black people could succeed, why couldn't other?

Establishing a causal connection is also challenging because so *many different* factors determine the trajectory of life outcomes, as Thomas Sowell, a conservative, African American economist at Stanford, explains

Differences [in life outcomes] cannot be dismissed as mere “perceptions” or “stereotypes,” nor can they be automatically attributed to some *one* given cause, such as genetics, as was often the primary cause cited in the early twentieth century, or to maltreatment by others, as was equally often cited in the late twentieth century. The sources of these disparities are numerous and complex, and they must be confronted in their complexity, if we are seeking the truth, rather than trying to promote a vision or an agenda.⁸

Sowell comprehensively analyzes instances of economic disparity throughout history and around the globe, and he cites a myriad of reasons for how and why these disparities

⁸ Thomas Sowell, *Intellectuals and Race* (New York: Basic Books, 2013), 20.

emerge: cultural practices that narrow the workforce to one gender or cast,⁹ geographic isolation that prevents a society from cultivating skills that are valuable in the marketplace (e.g. people in the Himalayas couldn't develop seafaring skills that facilitated trading)¹⁰, happenstances of history like disease and natural disaster, or a lack of valuable, natural resources due to geographical location,

In the world of mundane but consequential knowledge, how could an industrial revolution have originated in places which lack the key natural resources— iron ore and coal— and are too geographically inaccessible for those resources to be transported to them without prohibitive costs? The industrial revolution could hardly have begun in the Balkans or Hawaii, regardless of what people were living there— and neither could the people in those places have developed the same industrial skills, habits and ways of life at the same time as people in other places where the industrial revolution did in fact begin.¹¹

⁹ “Cultural attitudes, which in some societies create a rigid division between ‘women’s work’ and ‘men’s work,’ or which make manual labor repugnant to people with education, or caste-ridden societies which drastically limit the sources from which particular talents can be drawn for accomplishing particular tasks, all affect the economic potential of a given society. A society which throws away the talents and potentialities of half its population by making many economic roles and endeavors off-limits to women can hardly be expected to match the economic performances of societies which do not restrict their own prospects like this. In a society with rigid class or caste divisions, the highly varied talents and potentialities which arise among individuals may not arise solely, or even predominantly, among those individuals who happen to be born within the rigid class or caste stratifications in which their talents and potentialities are considered appropriate, or in which those talents and potentialities have opportunities to reach fruition.” *Ibid.*, 34.

¹⁰ “Since the geography of the planet is not something ‘socially constructed,’ the misfortunes of lagging groups are not automatically a social injustice, even if they can be conceived of as injustices from some cosmic perspective, in the sense that many peoples have suffered serious deprivations through no fault of their own. Putting the onus on society by calling these deprivations a violation of ‘social justice’ may be a verbal sop to those who are lagging, but it points them away from the paths by which other lagging groups have advanced themselves in the past, by pointing them toward blaming other people.” *Ibid.*, 33-34.

¹¹ *Ibid.*, 31.

Sowell also explores numerous historical instances across the globe where economically and culturally impoverished groups radically changed their circumstances by focusing their energies,

The historic examples of dramatic self- improvement in nineteenth-century Japan and eighteenth-century Scotland— countries that set out to change themselves, rather than to blame others— concentrated on building tangible skills, such as in engineering and medicine in the case of Scotland, and science and technology in the case of Japan. By contrast, in the twentieth century a whole generation of future Third World leaders who went to study in the West seldom concentrated on studying the science, technology or entrepreneurship that produced Western prosperity, but instead concentrated on the social theories and ideologies in vogue among Western intellectuals in academia and elsewhere. The countries they led after independence often paid a high price in economic stagnation or even retrogression, as well as in internal polarization that turned group against group.¹²

All these studies lead him to one conclusion, “Correlation is not causation. One race may be more successful than another at a particular endeavor, or a whole range of endeavors, for reasons that are neither genetic nor a result of the way the society in which they live treats them.”¹³ What is that answer? Biological evolution. Or, just natural luck. This is the argument that Jared Diamond lays out in his Pulitzer Prize winning book, *Guns, Germs, and Steel*.

GUNS, GERMS, AND STEEL ARE THE REASON FOR THE DIFFERENCE

Diamond asks a version of the question I have put forward, what explains economic disparity along racial line. Diamond, however, frames the question in an extraordinary way, which I want to use as the launching point for this dissertation. Diamond frames the question through the words of his friend from Papua New Guinea, Yali, who asks, “Why

¹² Ibid., 84.

¹³ Ibid., 44.

is it that you white people developed so much cargo and brought it to New Guinea, but we black people had so little cargo of our own.” Yali’s question cracked this whole debate open for me in a way that no other version of the question had. Let me explain by outlining how Diamond interprets the question.

Diamond is attentive to the incomplete or false answers that have been posited historically. One logical answer is to look at the material advantages that made it possible: the guns, the ships, the writing, and all the other technologies that facilitated European dominance of the globe. Europeans have more because they possessed those advantageous technologies. That line of reasoning, however, begs the question, “Why were Europeans, rather than Africans and Native Americans, the ones to end up with guns . . . and steel?” Diamond is keenly aware of the racist answers that often follow that question, and he is clear, white people didn’t succeed because they were smarter than black people. The black New Guineans he has met possess problem solving skills that are equal (if not superior) to white people.

If those radicalized stories of the past are false, if genetics doesn’t explain the unevenness, and if technological advantages don’t give the *ultimate* answer, then what is the answer to Yali’s question? Diamond offers a non-racialize, non-humanized conclusion, “History followed different courses for different peoples because of differences among people’s environments, not because of biological differences among people themselves.” Essentially, Diamond argues, Europeans have more cargo and bring it to Papua New Guinea because they started off with more cargo and built from there. Europeans were lucky because they lived on a geographic site where energy rich crops and domesticatable animals like pigs, cows, and goats could flourish. These served as the

material foundation for the modern world because those material conditions enabled human beings to spend less time and energy hunting food or gathering it, and that saved time and energy, and the saved time and energy could be devoted to other work, namely science, politics, and religion.

Diamond's account is convincing, and it details several *necessary* conditions. Nevertheless, it doesn't account for all the necessary conditions. Diamond only identifies the *initial* material factors that gave Europeans an environmental advantage and how those advantages made it possible for them to develop complex political structures, cities, and advanced technologies. To build on Diamond's thesis, and to give a satisfactory reply to Yali's question, we would have to account for more factors.

The world's radically disproportional distribution of material resources along the lines of skin color didn't simply happen because Europeans had better starting conditions. We have to account for more than just the environmental factors. Social factors also played a crucial and essential role. Throughout this dissertation, we will look closely at the social factors, but these factors are summarized by Walter Mignolo's outline of Anibal Quijano's colonial matrix of power ,

1. The appropriation of land and exploitation of labor
2. The control of authority (vicereignty, colonial states, military structures)
3. The control of gender and sexuality (the Christian family, gender and sexual values and conduct)
4. The control of subjectivity (the Christian faith, secular idea of subject and citizen) and knowledge (the principles of theology structuring all forms of knowledge; secular philosophy and the concept of reason structuring the human and natural sciences and the practical knowledge)¹⁴

And yet, even when we add the colonial matrix of power to the natural advantages that Diamond presents, we still haven't arrived at the ultimate causes because we haven't

¹⁴ Walter D. Mignolo, "Delinking," *Cultural Studies* 21, no. 2-3 (2007): 477.

moved beyond the material causes. Accounting for all of these advantages is absolutely necessary, if we want to provide an adequate description of how our world came to be, but these advantages alone don't sufficiently explain the why. They explain the *how*, not *why*.

THE ULTIMATE CAUSE OF THE WORLD'S DISPARITIES

In this dissertation, I want to push deeper into the problem by examining the *essential nature* of the advantages that enabled a very small fraction of our world's population to accumulate the vast majority of the world's wealth. To do that, I want to begin by conceptualizing "wealth," which is an ambiguous term fraught with philosophical, theological, and emotional confusion. To remove some of that confusion and to think more clearly about the problem, I am exchanging the word "wealth" for energy because that is the essential nature of wealth. To accumulate wealth is to accumulate energy, the fundamental source of life. This NASA image captures the entire story,

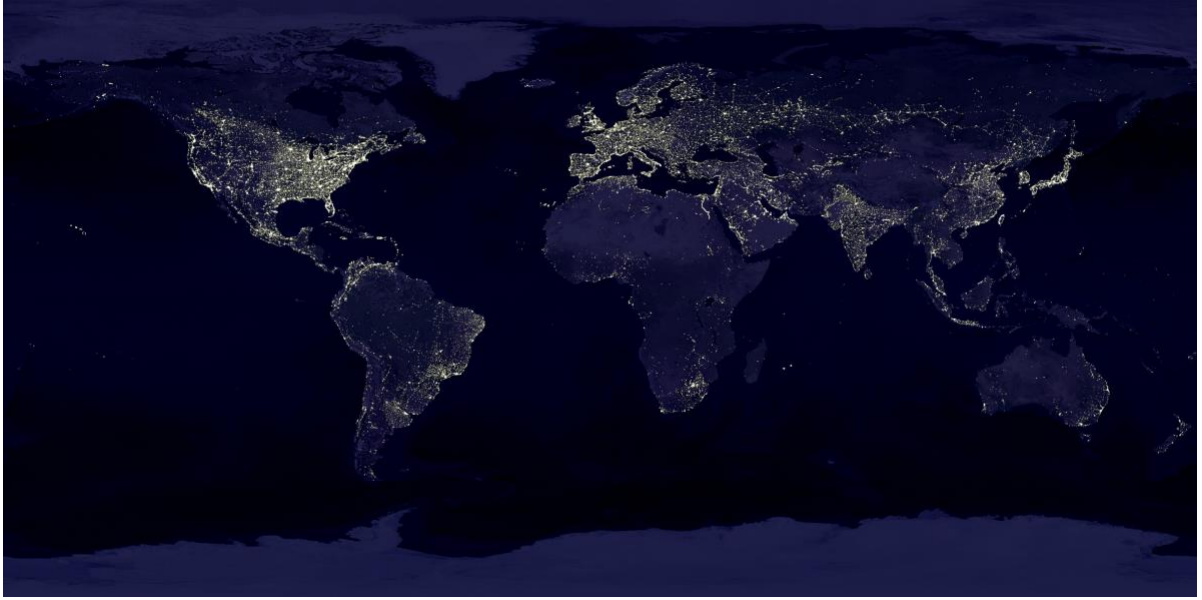


Illustration 1¹⁵

To say that wealth is unevenly distributed, to say that white people have “better” life outcomes, make more money, live longer, and so on is to say that they have access to more energy. They have literally accumulated more energy, in the form of food, gasoline, and electricity.

The connection between material goods and energy becomes obvious when we walk back through Diamond's argument. Eurasian people lived in a climate that was energetically favorable for human life, much more so than the deserts of Africa or the polar icecaps. The deserts are oversaturated with solar energy, and, therefore, living things struggle to retain water and, consequently, they struggle to sustain life processes. The polar caps, on the other hand, do not receive enough solar energy to sustain life. Eurasia's latitude, however, sits at a position on the globe that receives exactly the right

¹⁵ NASA/NOAA, “Earth at Night,” Digital image. Accessed August 28, 2017, https://www.nasa.gov/topics/earth/earthday/gall_earth_night.html.

amount of solar energy for plants and animals to flourish, and those plants and animals made sedentary life possible for human beings.

Wheat, cows, sheep, all necessary advantages for European civilizations, are essentially energy advantages. Wheat is an energy dense food, and these specific animals are domesticatable—their energy can be controlled by human beings—, they provide energy in the form of carbohydrates and proteins, and their hides can be turned into clothing—when you strip away human custom, clothing serves the fundamental purpose of preventing heat energy from escaping our body in the wintertime.

Domesticating these plants and animals made it possible for human beings to direct *their* physical and mental energy with greater intention. Hunter gatherer societies have to convert all of their food energy into narrow forms of work: seeking more energy (hunting and gathering) and protecting the energy they already have (clothing and shelter). Agricultural societies, however, rather than spending all of their energy (wealth) seeking after food, methodically cultivate high quality energy sources, and these high-quality sources yields surplus. The community doesn't have to spend all of the energy it has acquires on finding more energy or protecting the energy it has.

As a result of surplus, the community could direct some of its energy away from physical activity and toward mental activity—i.e. science, politics, religion. These activities, while they seem complex, are fundamentally related to energy. Science helps us acquire and retain energy more effectively. Politics helps guide humans as they act to acquire, retain, and exchange energy. Religion is intentional and mindful human relating with the primal source of energy. And because these activities are concerned with energy,

they are concerned with life. Energy is what makes plant and animal life possible. There is more to the story than just subsistence level energy, however.,

Human creatures have, historically speaking, done more than gather, retain, and exchange the energy necessary to sustain their bodies and minds. They have done more than direct energy surpluses towards thinking about ways to more efficiently gather, retain, and exchange the basic energy that their bodies and minds need. Human beings not only pursue the energy they need to sustain life; they also pursue the energy necessary to induce bodily and psychological pleasure.

That humans pursue energy for these reasons is readily evident at one of the oldest cities discovered by archeologists. The site of Guar, in Southern Jordan, is 9,000 years old, and Mohammad Najjar, who works for the Jordanian Department of Antiquities, commented,

Every time I come here, I'm amazed by what those people were doing. Some of the houses have a kind of air conditioning . . . to control the air coming from the street inside the house, and the houses, the walls and the floors of the houses from the inside at least, were covered with plaster. So people were moving to a concept of homes . . . It's not a place just to sleep, it is a proper home, and people started to decorate the houses from the inside, and people were starting to invest in their homes, because if we are talking about plaster, it is time-consuming, it's effort-consuming – it's very expensive to have plastered house [it is energy expensive].

As villages grew bigger, there were more people to work on the land. More people could produce more food more efficiently – enough to support specialists within the community. Freed from the burden of farming, some people were able to develop new skills, and new technologies. Making plaster from limestone was a major technological breakthrough. The stones had to be heated for days at a time, at a temperature of 1,000 degrees. It may seem insignificant today, but

understanding how to work with fire was the first step towards forging steel – a technology that would transform the world.¹⁶

At some point, after the people at Guar accumulated all the energy they needed to sustain themselves, they sat down and thought, “How can we improve the *quality* of our lives? How can we make our days of collecting, retaining, and exchanging energy more enjoyable, more pleasurable?” The work of answering that question was expensive. Devising technologies like windows and plaster is expensive, which means that producing them and installing them requires an enormous amount of natural energy in the form of food, material supplies wasted by failed experiments, physical labor, and mental exertion.

These people, aware of their existence’s quality, intentionally directed energy away from sustaining life in its bare form and directed it towards improving how their bodies and minds experienced life. “My body is hot (i.e. it has too much internal energy), and it would feel better if it were cooler. How do we make that happen?”

Diamond’s simple and convincing theory explains the material factors necessary for windows and plaster: a geographic space that was energetically favorable for certain plants and animals to thrive and the domestication of those plants and animals by humans. He doesn’t account for, however, the deeper, more essential question.

THE QUESTION OF THIS DISSERTATION

How did human beings determine that they should direct their surplus energy towards bodily comfort and psychological pleasure? Even more to the point of modernity’s problem (and the problem of all human history), how did they eventually

¹⁶ Tim Lambert and Cassian Harrison, "Guns, Germs, and Steel," (National Geographic Video2005).

decide that they should direct energy surpluses towards acquiring and retaining energy stores far greater than they needed for either subsistence, bodily comfort, or psychological pleasure?

This is a question about excess. At some point, energy reserves held in the form of high quality food, shelter, clothing, and transportation fell subject to a principle of diminishing returns. They simply can't deliver what is desired.

Early in their history, human beings manifested a unique capacity, one that no other created being possesses. I do not have rational thought in mind. Other creatures can, we now understand, do that. They can solve complex problems so as to acquire and retain energy. They can coordinate their actions with others so as to acquire, retain, and exchange energy. Humans, though, have the capacity to use their reasoning skill to seek out, acquire, and retain *far more energy than they could need in their lifetime*, and, in extreme cases, they collect and retain more energy than they could use in 1,000 lifetimes. Not only do they seek out unnecessary energy—at least unnecessary in terms of subsistence living—they are willing to die and kill for it.

Diamond's theory cannot answer that conundrum, a fact that becomes most obvious during his narration of the Cajamarca massacre. An extensive quote will be helpful here to detail the events at Cajamarca and to foreground two essential questions at the heart of modernity's problem and at the heart of this dissertation,

The most dramatic moment in subsequent European-Native American relations was the first encounter between the Inca emperor Atahualpa and the Spanish conquistador Francisco Pizarro at the Peruvian highland town of Cajamarca on November 16, 1532. Atahualpa was absolute monarch of the largest and most advanced state in the New World, while Pizarro represented the Holy Roman Emperor Charles V (also known as King Charles I of Spain), monarch of the most powerful state in Europe. Pizarro, leading a ragtag group of 168 Spanish soldiers, was in unfamiliar

terrain, ignorant of the local inhabitants, completely out of touch with the nearest Spaniards (1,000 miles to the north in Panama) and far beyond the reach of timely reinforcements. Atahualpa was in the middle of his own empire of millions of subjects and immediately surrounded by his army of 80,000 soldiers, recently victorious in a war with other Indians. Nevertheless, Pizarro captured Atahualpa within a few minutes after the two leaders first set eyes on each other. Pizarro proceeded to hold his prisoner for eight months, while extracting history's largest ransom in return for a promise to free him. After the ransom—enough gold to fill a room 22 feet long by 17 feet wide to a height of over 8 feet—was delivered, Pizarro reneged on his promise and executed Atahualpa.

The factors that resulted in Pizarro's seizing Atahualpa were essentially the same ones that determined the outcome of many similar collisions between colonizers and native peoples elsewhere in the modern world. Hence Atahualpa's capture offers us a broad window onto world history.¹⁷

Indeed, this event is a compact iteration of all global history, and in it we can observe not only the factors that have determined the monumental imbalance of modern energy distributions, but we also glimpse the essential *factors that have determine all the energy imbalances that have developed across the globe, in every society, past and present*. This event opens a window to more than just modern history. It opens a window onto all of human history.

That is not immediately obvious in Diamond's narrative, however, because he is interested in the *material* details. He thinks that Yali is asking, "Why did different peoples end up with disparate degrees of power and affluence?" He believes this question means, "How did a group of men with very few resources accomplish so much? How did 168 men defeat Atahualpa's massive army?" His answer, the *quality* of Spanish tools made it possible: their horses, their swords and guns (steel), and the technique by which they applied those (military strategy), and all of the antecedent causes that made those

¹⁷ Jared M. Diamond, *Guns, Germs, and Steel : The Fates of Human Societies*, 1st ed. (New York: W.W. Norton & Co., 1997), 67-68.

advantages possible: a geographic space that was energetically favorable for certain plants and animals to thrive, the domestication of those plants and animals by humans, diverting energy away from energy collection and retention, and diverting energy towards technologies that facilitate more efficient energy acquisition and retention (science, politics, and religion).

Diamond comes closest to asking the question that will lead to the ultimate solution when he inquires, “*How did Pizarro come to be at Cajamarca? Why didn’t Atahualpa instead try to conquer Spain?*” If he were to follow that question carefully, he could arrive at the problem’s heart. Again, though, his focus on material processes prevents him from seeing the deeper, essential causes of the event and of modern history. Diamond answers the question by turning to the material advantages that followed upon the initial material advantages: ships, written documents and the information they speak (coordinates, tactics, etc . . .), etc. . . . In Diamond’s view, once the conquistadores had the materials necessary to cross the ocean, their arrival and their victory was *fait accompli*. It was not a matter of if. It was a matter of when. Similarly, Diamond seems to think that if the material advantages had been reversed, if Atahualpa and his people had the advantages and not the European’s, the story would have been the same, only in reverse. The Incas would have marched into Toledo.

Perhaps that is true. Maybe the New Guineans, the Incas, the Mexicans, the Chinese, the Australians would have conquered the world in the same manner as the Europeans did . . . *if*, they had had access to the same material advantages. Then again, maybe they wouldn’t. We cannot make arguments about how things *might have* unfolded if the variables had been different. We can only explain what *did*, in reality, happen and

why it happened, and in doing that we have to provide more than a material history, and that requires foregrounding essential facets of the event that fade into the background of Diamond's account. Remarkably, *everything* we need to answer the problem is in Diamond's narrative, but he overshadows the most salient factors with the technical, material questions.

Let's reframe Diamond's question in the language that my family from the mountains of eastern Kentucky would use, "How come Pizarro was in Cajamarca? How come Atahualpa didn't go and conquer Spain." There is a subtle linguistic difference here. "*How* did Pizarro come to Cajamarca?" Is not the same question as "*How come* Pizarro was in Cajamarca." The second question, the question from the lips of my Kentucky ancestors, is not a technical, *how* question. It is a more penetrating *why* question, like Yali's question, "Why is it that you white people developed so much cargo and brought it to New Guinea?" This question drives to the heart of the matter! Why did Pizarro and his men *want* to go to Cajamarca? Why did Pizarro and his men think that it was good and necessary to do that? Why did Europeans willingly, energetically, happily divert so much surplus energy into developing ships, guns, swords, horse-craft, steel, et cetera.

Perhaps that was Yali's conundrum, "Why is it that you white people developed so much cargo and brought it to New Guinea, but we black people had very little cargo of our own?" I don't know, but perhaps Yali was asking a moral question. Perhaps he didn't want to know the material history of the world. Perhaps he wanted to know something about the white man's soul. Maybe he was asking, "Why does the white man feel

compelled to accumulate so much cargo, and why did he think that he needed to bring it here? We had everything we need to live a good life.”

This question pushes us into the heart of the human condition. It thrusts upon us the essential moral questions at the heart of our history and our present moment. *How did human beings determine that they should direct their surplus energy towards bodily comfort and psychological pleasure? Even more to the point of modernity’s problem (and the problem of all human history), how did they eventually decide that they should direct energy surpluses towards acquiring and retaining energy stores far greater than they needed for either subsistence, bodily comfort, or psychological pleasure? This is a question about excess. At some point, energy reserves held in the form of high quality food, shelter, clothing, and transportation fell subject to a principle of diminishing returns. They simply couldn’t deliver what was desired.*

The fact that Diamond cannot ask the moral question should trouble us intensely, not because he excludes God from the question or because he doesn't care about the expansive suffering darker skinned people live with. Indeed, it is clear in his work that he has developed a deep affection for and intimate relationships with colonized people all over the world. He listens to them. He learns from them. He respects them. No, his inability to ask the question should concern us precisely because he cares so deeply, and yet, despite his deep concern, despite his efforts to transcend the destructive shackles of our globe's racist histories, he is trapped inside the logic and practices that are the ultimate cause of our modern world.

What are those logics and practices? The answer to that question is the subject of the following pages.

MY ARGUMENT IN PRACTICE

Before I explain the ideas in this work, I would like for you to experience my argument first hand, in a non-theoretical way by practicing an exercise that captures the essence of my argument. I want to first present the argument this way because my fourteen years of pastoral work have imbued me with a deep practical sensibility. I also present it this way because disembodied theories occupy a central place in the history of making our present world.

To begin with,

First, draw in and release three or four short breaths and pay attention to that in-and-out rhythm.

Then, draw and release three or four long breaths and pay attention to that in-and-out rhythm. Pay attention to the material resources that your body draws in, uses, and then gives back (in the form of oxygen and CO₂)

That is how our world *should* have evolved. There is a physical principle to that exercise. We draw in material goods from the world (oxygen), our body uses tools to break the oxygen molecules apart, it uses tools to guide that energy to parts of the body that needs it, it generates some byproducts while doing that work, and then the body uses some tools to give back what it didn't need, plus the byproducts. Our body's wisdom understands the principles of life. This in-and-out rhythm is a fluid and *non-possessive energy exchange*, and it is how we stay alive. It is how we thrive. This fluid and spontaneous energy exchange process is how all life lives and thrives.

Now, if you want to understand the insanity that brought us to this moment in history,

Draw in one long breath and don't let it out. Hold it for as long as you can.

After a time, your body will begin to ache, and you will feel inclined to either exhale or take in more air.

Breath in some more air

The anxiety and pain in your body will subside for a moment, but then it will begin again.

Breath in some more air

Now, convince yourself that the anxiety and desire for more air is natural, that it is your body's natural processes telling you that what you need is more air. Tell yourself that the problem is not that you are somehow breathing wrong. The problem is that you just need more air.

Then

Convince yourself that God has chosen you to gather up and control all the air in your room, all the air in your state, all the air in the universe. Convince yourself that God ordained you, from the beginning of time, to determine the movement of all air particles, and if you don't manage those particles, then existence will somehow be deficient. If you don't control the air, existence will cease.

Spend time investigating the fundamental laws of aerodynamics. Count air particles, develop complex and remarkable accurate theories about the nature of air and its causes and effects. Develop such certainty about those theories that you can call them universal laws, because they are. Use those laws to help you manage the air in your body and all of the air you can somehow get hold of. Take time to devise technologies to control air particles and air flow. As you develop those technologies, call them progress.

Convince yourself that your goodness as a living creature depends upon your ability to acquire and retain oxygen molecules. Convince yourself that your goodness

hinges on your ability to uncover the principles of air flow and invent technologies that improve your ability to control the air. Convince others that their goodness depends on their ability to acquire and retain oxygen molecules. Create a community of people who judge each other's worth on how much oxygen they have. Make fun of people who don't have much oxygen and whose bodies have withered as a consequence, and venerate those who have more than they need, regardless of how they got it.

Now, write some rules on pieces of paper and describe the conditions upon which a person can acquire and control oxygen. Write some rules describing how people can buy and sell oxygen. Create a group of people who carry guns and who can enforce those rules.

Now, create a hierarchy within your community. Only people with brown hair and freckles can own oxygen or make laws about oxygen. People who have brown hair but not freckles can't own oxygen or make laws about it, but they can partner up with people who do.

Now, imagine that you travel to another state that you have never been to and you encounter people who have different physical features than your people and who gather oxygen differently than you do. They wear different clothes, they speak in a different language, they haven't devised all the technologies for gathering oxygen that you have—because they don't really place much value in holding on to excess oxygen. Pretend that God has ordained you to teach these people how to gather oxygen, and what to wear while they gather it, and how to talk about gathering oxygen. Convince yourself that God has given you permission to take control of these people and their oxygen gathering

practices. Pretend that God has given you permission to use these people to gather oxygen for you.

Hopefully, the point is evident. This exercise may seem a bit reductionist, but I practice it often, and it continues to make sense. The Buddha taught that continual mindfulness of breathing could open the mind to all of reality, “The method of being fully aware of breathing, if developed and practiced continually will have great reward and bring great advantages . . . If developed and practiced continuously, [it] will give rise to understanding and liberation of the mind.” This exercise, I believe, captures the physical, emotional, intellectual, and practical essence of this dissertation.

THE PRIMARY SUBJECT OF THIS DISSERTATION

The primary subjects of this dissertation are Man, His actions, the technologies He developed, and the world He made. But I should be clear about what I mean by “Man.” By saying Man, I do not intend to signify the thoughts, words, or actions of an individual man *or* human beings in general.¹⁸ Man, as I use it, is neither a singular, particular man nor is it a false universal. I am using the term Man, the work of Man, the desires of Man, the thoughts of Man to signify the work, the desires, the thoughts of a human collective, a collection of human beings, a group of people: chiefly, white, Western, males who developed a particular intention for their lives and executed that intention. They sought to acquire and retain radical freedom, expansive wealth, and massive amounts of power.

¹⁸ My inspiration for using the term Man initially came from Sylvia Wynter and her argument, “The struggle of our new millennium will be one between the ongoing imperative of securing the well-being of our present ethnoclass (i.e., Western bourgeois) conception of the human, Man, which overrepresents itself as if it were the human itself.” Sylvia Wynter, “Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, after Man, Its Overrepresentation—an Argument,” *CR: The New Centennial Review* 3, no. 3 (2003): 260.

I use this singular signifier “Man” to represent a whole, a collective, because the emotions, thoughts, and actions that shaped our current world were conceived, articulated, and performed by a group of people who acted, at least in some sense, as a unified whole, as one body and mind. Man’s modern project, his colonial project, his modern-colonial project, to tie those concepts together as Walter Mignolo does, was a national and trans-national one, conceived inside a small geographical region and executed on a global scale.¹⁹

Analyzing and judging an entire group of people runs contrary to our modern, individualistic moral framework, but in both the Jewish and the Christian traditions, the people as a whole and the individuals within that whole are held responsible for collective righteousness, sin, and punishment. When a group shares a collective identity, when they define themselves with a degree of oneness, then that collective subjects itself to a collective ethical assessment, in spite of the fact that each individual stands in a unique relationship to both the collective’s identity and the collective’s action.

Everyone on the globe who was enveloped into Man’s modern-colonial project responded differently and with varying degrees of freedom. Some participants were so tightly bound by economic necessity that challenging or resisting the goals of the modern colonial project--its goals, its means, etc.--- was difficult, at best, or nearly impossible, at worst. Others, though, those who possessed significant quantities of economic and political resources had more freedom to act differently, but even they didn't have absolute freedom to act outside the norms of their time and place. Our ability to resist is always confined by the physical, intellectual, and emotional resources at our disposal. Necessity

¹⁹ Mignolo.

and freedom, especially in relationship to sin, are important because they effect culpability, which we will discuss later.

In addition to reading “Man” as “modern-colonial men” who shaped our contemporary world, I want the reader to conceive “Man” in a yet broader sense that signifies a *particular human condition*, one that reduces humanness. Unlike modern-colonial Man's interpretation of himself as the apex of human evolution and the fulfillment of divine intent, I argue in the other direction. The condition of Man is one form of human devolution that distorts human emotional capacities, diminishes human cognitive functions, misdirects the will, and, as a consequence, precipitates vicious acts that destroy life, individual and collective.

The Deuteronomist set out the primary human quality that the Creator inscribed in the soul of the creature, the capacity and command to love God, “So now, O Israel, what does the LORD your God require of you? Only to fear the LORD your God, to walk in all his ways, to love him, to serve the LORD your God with all your heart and with all your soul.” What of the neighbor? The prophet Micah delineated the secondary human quality that the creator inscribed on the soul of the creature, the capacity and command to love our neighbor,

He has told you, O mortal, what is good;
and what does the LORD require of you
but to do justice, and to love kindness,
and to walk humbly with your God?

And Jesus, the compact iteration and fulfillment of Creation, tied those two together, calling them the essence of both law and prophetic witness, ““You shall love the Lord

your God with all your heart, and with all your soul, and with all your mind.’ This is the greatest and first commandment. And a second is like it: ‘You shall love your neighbor as yourself.’ On these two commandments hang all the law and the prophets.”

Man and his actions represents a diminution in the human faculties that make fulfilling these commands impossible. *Man* represents an enduring, stable disposition (a habitus) that tends towards hatred of the Creator and all that the Creator has made in favor of Man's love for himself. In this sense, I'm using *Man* in a way that is analogous to Paul's use of *sarx* (flesh), “While we were living in the flesh, our sinful passions, aroused by the law, were at work in our members to bear fruit for death (Rom. 7:5).

It should be obvious, one does not have to be of the male sex to participate in the life of Man. Man is a condition, a state of being. It is a particular kind of habituated affect, cognition, and willing. As such, all human beings can, and do, live inside of this condition. Philosophers, scientists, and politicians, shopkeepers, housekeepers, and shipbuilders; wives, husbands, and unmarried persons, experience the state of Man.

SUMMARY OF THE ARGUMENT, ITS PARTS AND ITS CHAPTERS

How did our world's energy become so unevenly distributed? How did Man manage to acquire and retain so much energy? How come he wanted to do that? In answering those questions, I will focus on the challenges that He had to overcome and the technologies that overcame those challenges. However, the technologies under consideration are not of the mechanical type, like guns and steel. The technologies that we will examine are social. They relate to practical human action: patterns of buying and selling, rhythms of speaking, structured systems of ideas about the world. I call these action and idea patterns technologies because they were, like all technologies, intentionally constructed over an

extended period of time and they served a critical function. They got work done in the world for Man. These challenges and technologies are the focus of Part I and Part II.

Chapter one examines a fundamental physical challenge that had to be surmounted: forces that bind individual objects together into composite wholes. Namely, the chapter focuses on the chemical bonds that hold the world together and how those bonds had to be ruptured before useful energy could be released and utilized to do beneficial work, the work of world-making.

Chapter two takes the concepts of physical bonding and rupture and applies them *analogically* to social bonding and rupture. It examines the emotional and intellectual bonds of human beings that posed challenges to Man's world-remaking project. It does this in two ways. It examines the emotional and intellectual bonds that held African communities together and how those patterns of feeling and thinking weren't conducive to Man's aspirations. The basic argument is simple, some Africans had a way of life, a set of *affective bonds*, a vision of the good life (an ethical system) that was inimical to Man. In order to acquire and retain the world's energy, he had had to shatter those bonds and make new ones. Fundamentally, he had to capture the African's body, but he also had to transform the emoting and thinking patterns of individual Africans. He did that by altering African economic practices and by inserting captured Africans into a new, foreign social ecology that transformed them emotionally and intellectually: the slave ship.

Chapter two also examines another set of bonds that resisted Man's world making his endeavors: ideas. European ideas about ethical action served as a kind of binding force that subdued Man's greed. Certain behaviors were deemed unethical, and before Man could seize land, murder indigenous peoples, and enslave them, he had to rupture

the global human body. He did this by creating social hierarchies based on culture and race that excluded indigenous peoples from the category of humanness.

Chapter three shifts attention away from binding forces and rupturing technologies and towards challenges posed by *natural energy flows*. Man faced two energy flow challenges. First, energy doesn't flow without difference and mechanical work isn't possible without energy flow. Thus, Man had to create energy differences for his machines to run. Without difference, his machines wouldn't work. We should say more. Precise laws govern *how* energy flows in the world, and those laws posed challenges for Man. Principally, energy always flows from high to low. Heat is the quintessential example. Energy doesn't travel between two systems in thermal equilibrium, but, if two systems are at different temperatures, heat spontaneously travels from the hot system to the cold system. Open the door to your air-conditioned house in the middle of summer, and you can feel the heat flow. This difference between high and low is absolutely essential for energy flow, and energy flow is absolutely essential for mechanical work. This means that Man had to create high-low energy configurations. *Second*, when energy does flow, it is subject to the laws of entropy. Entropy laws set the absolute universal limit on how much mechanical work Man could extract from a thermal system because energy has a tendency to spontaneously diffuse outward. To make the point simple, nature's energy had to be contained, controlled, and guided. It didn't flow naturally into the places he wanted it to flow.

Chapter four takes the concepts of difference, energy flow, and entropy and applies them analogically to human emotional and intellectual energy. Rather than focusing on African communities, like chapter two did, chapter four examines how the

physical, emotional, and intellectual energy of 19th century English workers didn't flow easily and efficiently into factory work. They were easily distracted, prone to depression, and sometimes rebellious. This was problematic because Man needed focused workers, dexterous workers, efficient, and eager workers.

After examining the natures of these challenges, chapter four examines several economic practices that mitigated the problem of lost worker energy: division labor, architectural structure, prisons, and paid police. Next, chapter four moves in a direction that parallels chapter two. In that chapter, we moved from economic practices to systems of meaning (ideas) that solved a crucial problem: cultural and racial identity. Chapter four follows the same pattern, but rather than examining cultural or racial identity difference (European vs. non-European, white vs. black, human vs. non-human), it examines how Europeans defined *normal* vs. *abnormal*, how they devised a complex and rigorous system of documentation, comparison, examination that made it possible to enforce conformity on a wide scale, and how that normal-abnormal difference helped channel the physical, emotional, and intellectual energy of English factory workers into their work.

The chapter concludes with an extended examination of an influential 19th century theology that served a critical and valuable role in guiding the energies of English workers: premillennial eschatology. This form of Christian thought combines all the technologies discussed above (hierarchical observation, normal-abnormal identity difference, documentation, and examination), but it perfects those technologies by making God the overseer with untrammled vision who perfectly documents every action and rewards/punishes according to those actions. When this form of theology combines

with other ideas about obedience to authority and industriousness, it becomes a powerful energy guiding technology.

Chapter 5 begins the transition from the social to the individual. This is just a first step. It doesn't look at one individual. Rather, Man himself becomes the subject, and it examines the intentions He had, what he set out to accomplish. I use the ideas of Thomas Hobbes and Francis Bacon as prototypes for Man. They are tropes for Man and his intentions. The chapter looks specifically at His intention to claim Freedom from the church and all tradition, to claim freedom for Himself so that he could seek out, acquire and retain all the universes' energies. Essential, it seeks to show that the world was made by men who wanted to control the worlds wealth (energy) and to have power. This isn't a particularly novel claim. However, I make an important distinction, one that is intended to set a foundation for the chapters that follow.

Man's desire for wealth and power is a desire for two different kinds of objects: one physical and one psychological/intellectual. On the one hand, Man's desire to control the world's wealth was a desire for material goods intended to satiate his physical desire. In its basic form, this is the desire for food and the pleasure that eating induces. Obviously, it takes more complicated forms, but that is the essence of the desire. On the other hand, we have Man's desire for power. At this point I am trying to tease out something very specific by defining power in a precise and unusual way. I use physics to define power, and in doing that I want to establish that "power" exists in the mind. Power arises when 1) an agent perceives that a force has been applied to an object, 2) the agent evaluates and measures the effects of that force application according to a system of measurement, 3) the agent understands a broader set of rules that determine the goodness

or badness of that force application, and 4) the agent has an emotional response to that force application based on her position within the system of measurements and rules. I cannot explain this concept succinctly. However, the primary point is this. In seeking “power,” Man wanted to 1) perceive His applications for force, 2) evaluate and measure His applications of force according to a system of measurements he devised, 3) create and control the broader set of rules that determined goodness and badness of his force applications, and 4) based on the first three, always have a positive emotional response to his applications for force. Fundamentally, he wanted to create a physical and intellectual matrix in which he would always win.

Chapters six and seven take a theological turn. Chapter six uses the theology of Thomas Aquinas to explain how the world’s energies could become so viciously unequal. It looks generally at how human passion, intellect, and will get distorted. This sets the general context for chapter seven, which looks deeply into the structure of human desire and greed, focusing specifically on the effects that greed has in causing other sins. Rather than relying solely on the thought of Aquinas, however, this chapter uses slave narratives and allows slaves to flesh out the nuances that greed takes. Aquinas assumes a supporting role. I use his ideas to fill in some of the details.

The final chapter tries to take seriously all of the previous chapters. Much of our present world’s problems rest on a foundation of distorted thinking about the nature of humanness, and so this chapter wrestles with the role of theological anthropology in Christian thought. Given the distortions of feeling, thinking, and acting that definitions of humanness have produced, I try to sort out whether or not there is any use trying to talk about humanness from a theological perspective, and if we do talk about, what should we

say. I approach these questions by summarizing the problems that the first seven chapters explained, and then I carry out an in-depth examination of one crucial theological debate: do human beings have a natural desire for God. This painstaking examination of the debate's content is intended to demonstrate that the answer to such a question has important practical consequences for discussions about rights and justice. Tragically, this chapter has a tendency to fall into problematic, universalizing conceptualizations. I haven't figured out how to work around this problem. Yet!

Chapter 8 is followed with some concluding thoughts in a less analytical form. I summarize the dissertation's contents and pose possible solutions in language that I would use with a parishioner.

The last part of the dissertation is a set of appendices. The contents of these appendices are not essential to understanding the dissertation's argument, but they have been integral to me in constructing the argument, and they add an increased level of nuance to the ideas in the dissertation. Appendix One is an extended reflection that I wrote on the role of Aquinas' thought. The tone of the piece sounds apologetic. It sounds that way because I was trying to talk myself through the argument, asking myself, "Should Aquinas have a place in my thinking, and if so, what place should that be?" Appendix two and three explain some of the intricate physical principles that I had to figure out as I structured this argument. Appendix two gives more details about the nature of entropy and the challenges it poses. Appendix three gives more details about the nature of power.

There is an underlying logic to the parts and chapters, and it can be understood in several different ways,

Way One (the subject of the parts):

- Parts 1 & 2 look at dynamic, particular natural and social processes and the actors in those processes. They have concrete, existing subjects like molecules, ships, slaves, factory workers, and so on
- Parts 3 & 4 have a more generic subject: modern-colonial Man specifically and the human creature in general
- Appendices present important principles that were essential to constructing the argument but aren't essential for the reader to understand the argument

Way Two (the problems addressed by the parts):

- Part 1 examines the kinds of bonds that had to be ruptured in order for our modern world to be made and the technology that ruptures them
- Part 2 examines how various kinds of energy behave and the technologies necessary to manipulate those energies
- Part 3 examines the problem of Man's desires specifically and then it uses Thomas' Aquinas to explain how the human intellect, passion, and will caused our present world
- Part 4 considers a potential solution to the problem of our world by re-interpreting the nature and purpose of human life

Way 3 Three (the logical structure of the parts)

- Part 1: Rupturing Technologies
 - Chapter 1 examines the *physical binding forces* that challenged Man's intentions to make the world into the image he had for it
 - Chapter 2 examines the *emotional and intellectual binding forces* that held human communities together and challenged Man's intentions to make the world into the image he had for it. This chapter also examines technologies that helped break those bonds, which I will explain more fully in a few paragraphs
- Part 2: Energy Flow Technologies
 - Chapter 3 examines the *natural energy flow* challenges that Man had to overcome as he sought to realize his vision of the world
 - Chapter 4 examines the *human energy flow* challenges that Man had to overcome as he sought to realize his vision of the world. It also examines the technologies that helped guide human energy into productive factory work, which I will explain more fully in a few paragraphs
- Part 3
 - Chapter 5 examines the fundamental intentions that motivated Man: freedom, control, and power
 - Chapter 6 examines Thomas' theory of sin and it explains how the passions, the intellect, and the will are the source of vicious human actions
 - Chapter 7 examines a very specific cause of the modern world, a distorted human appetite for material possessions
- Part 4
 - Chapter 8 tries to address the problems presented in Chapters 1-7 by reinterpreting the nature and purpose of human life

- A few concluding thoughts

A FEW WORDS ON METHOD AND THOMAS AQUINAS

My approach to modernity's problems is, I believe, an unusual approach these days. I am not aware of anyone who has tried to draw parallels between natural and social processes in the way that I have. Also, Thomas Aquinas assumes a central role towards the end of the dissertation. So, in order to avoid confusion about what I am trying to accomplish, I would like to offer a few words of explanation. I have analyzed the problem at the heart of Yali's question this way for several reasons.

First, I wanted to approach the problem from a direction that freed me from using a single, geo-politically situated theory of human culture. In the past, I have analyzed this same question using Bourdieu's theories of *habitus* and *doxa*. I have used Foucault's analysis of power relations and disciplinary technologies. I have used Thomas Aquinas' theories about the human passions. And I have used many others. The theories of Aquinas, Bourdieu, Foucault, and all of theorists, presuppose a wider set of philosophical and theological commitments, some of which I share and some of which I don't. This dissertation was an attempt to find an analytic framework that didn't require me to live inside any one of their theories.

Let me clarify two things. To begin with, I was not attempting to provide a geo-politically, disembodied, and universal analysis of the problem. I wasn't attempting to find the ultimate, transcendent point of view, a zero degree of knowing from which I could interpret the problem. To the contrary! I was actually trying to go deeper into the physical world and read the problem from inside the complex and mysterious processes that determine nature's interactions.

This raises the second point, in attempting to step outside of the theories I knew, I wanted to let something, some framework give structure to my reflections, and so I decided to let the structures and processes of nature do that. I decided to let natural structures and processes (like combustion and the laws of motion) shape my reflection on social structures and processes. Importantly! I do not conflate the two. Social processes are not solely determined by natural processes. This is where Diamond's argument failed. Unequivocally, the natural world, as you will see, set immovable natural limitations on what could happen and how it could happen, but human beings are creatures who possess intention and choice, not matter how constrained that ability to choose may be.

My approach to this was inspired, initially, by Aristotle's method, and that fact, undoubtedly, makes my approach geo-politically located. However, Aristotle's thought only provided the most basic framework: start with the physical, start with the most comprehensible forms of causation, and then work your way into more complicated subjects. Look at natural causes and effects, examine those chains, and then progress to more complicated chains of causation.

As it turns out, Aristotle's method, in its broadest structure, isn't uniquely Western. That fact surprised me. In the course of my research, always cautious about how I relied on Aristotle's methods, I discovered that Buddha *preceded* Aristotle in this approach, which you experienced in the breathing exercise above. Thich Nhat Hanh, a Buddhist monk and Zen Master, captures the essence of this teaching, "If we see the truth of one thing in the cosmos, we see the nature of the cosmos. Because of our mindfulness, our deep looking, the nature of the cosmos will reveal itself. It is not a matter of imposing

our ideas on the nature of the cosmos.”²⁰ Throughout my research, I was motivated by the conviction that all things are interconnected because human beings are creatures *of* nature, not creatures above or below nature, and because of this, I believed that some kind of symmetry would exist between natural and social processes.

Second, I wanted to understand the *essential nature of the physical and social actions* that made our world and then determine whether or not there was any parallel between them. It turns out that the physical and social are connected causally *and* analogously. For example, in chapters 1 and 2, I explore how physical, emotional, and mental rupture and advantages capable of producing rupture were essential to making our world what it is. In fact, physical rupturing advantages (like fire, slave ships, and guns) serve as robust analogous for emotional and intellectual rupturing advantages like capitalist economic practices and racial ideas.

But the physical and social are connected on a deeper level. The physical advantages that ruptured existing relations were essential components of the emotional and intellectual advantages that ruptured relationships. For example, the idea of “racial identity” is little more than idea, unless you have the material advantages necessary to enforce it. The *idea* that black people are naturally slaves who could be detached from the communities to which they were physically and emotionally, and intellectually bound simply doesn’t have much force unless you have the guns, ships, and chains to physically reify that idea.

Finally, Thomas Aquinas plays an essential analytical role in interpreting human nature. I use his virtue theories to explain human greed as a fundamental cause of our

²⁰ Hąnh, 81.

present world. I have chosen Aquinas for several reasons. First, he has been one of my primary interlocutors throughout my doctoral studies. I realized, when I first began my doctoral work, that I hadn't read Thomas in enough depth. All of my prior research focused heavily on the patristics, modern theologies (liberation, feminist, womanist, and so on), and 20th century anthropological and sociological theory. I wanted to broaden my research. Having done all of that reading, I wanted to figure out how Thomas could fit into this conversation. What does he have to say to us? What can he reveal about the problems we are thinking about? Second, even though Aristotelian and scholastic methods and contents have been *part* of the problem, there is something strikingly unmodern about Aquinas, especially when it comes to questions about human nature. Admittedly, Aquinas made anthropological mistakes. Women, aren't misbegotten males.

As I understand it, the *essential* problem with Aquinas, or, to be more precise, the scholastic method as it manifests itself in thinkers like Francisco Vitoria, is its aspiration to universality and total objectivity. To state this in the words of one of my parishioners in Wilson, "They were so heaven bound, they were no damn good." The scholastic method tries to operate on such a universal plane that it just doesn't work. Scholastic thought and method isn't sufficiently grounded in the particularities of life. I am not using Aquinas or the scholastic method in the same way. I am not pushing for universality, nor am I striving to offer universal principles for ethical decision making. Moreover, I have tried to correct the scholastic problem by doing that the scholastics like Vitoria didn't do. I have listened deeply to indigenous voices, to women's voices, to wisdom forms that are often overlooked.

No doubt, I haven't always understood as well as I wish I could, but I have tried to think these problems in a way that corrects the habits of feeling and thinking that created the problem in the first place. Chiefly, I have tried to enter into the world fully. I have tried to look and listen carefully at the details of nature and human beings, paying particularly close attention to those sites where groans of suffering arise. As Bhikku Bodhi so succinctly summarized, "To win deliverance is a matter of unraveling the causal pattern that underlies our bondage, and this process begins with understanding the causal pattern itself. . . The whole process ends only when its underlying springs—ignorance, craving, and clinging—are extirpated by wisdom."²¹

²¹ Bodhi.

PART I: RUPTURING TECHNOLOGIES

CHAPTER 1: RUPTURING PHYSICAL BONDS

*For the chain of causes cannot by any force be loosed or broken, nor can nature be commanded except by being obeyed. And so those twin objects, human knowledge and human power, do really meet in one; and it is from ignorance of causes that operation fails.*¹
—Francis Bacon

*It seems reasonable to say, then, that the “intent” of creation is that life lives by constantly seeking to realize itself in established forms, patterns, and units.*²
—Howard Thurman

Our contemporary world was built by deconstructing, fracturing, or breaking an old order of things and reestablishing a new order. It was manufactured by interrupting old patterns and establishing new patterns. It was formed by destroying old bonds and creating new bonds. That is how all things are made, and the answer to Yali’s question begins with an explanation of the binding forces that held the world together, the patterns established by those binding forces, and the advantages that Europeans need to rupture those ancient bonds and relationship patterns that made the world what it was.

In this chapter, we will examine the physics of world making. We will explore the intricate details of natural binding forces (molecular and gravitational) that held the world together and that had to be undone before Man could redistribute the earth’s energy in a radically different way than it was before He took hold of it. At times our looking may seem to go a little too deep. It may appear as though we have traveled too far into the minutiae. This chapter digs deeply into natural processes because those processes serve as a theoretical framework for

¹ Francis Bacon, Complete Works of Francis Bacon, (Minerva Classics. Kindle Edition). Kindle Location 458.

² Howard Thurman, *The Search for Common Ground : An Inquiry into the Basis of Man's Experience of Community*, A Howard Thurman Book (Richmond, Ind.: Friends United Press, 1986), 104.

Chapter 2, where we will analyze social processes that ruptured uniquely animal bonding forces: emotions and ideas. I confess, I haven't been able to make full use of all the physical principles and ideas by connecting them to the social. I hope to continue that work in the future.

THE PROBLEM POSED BY PHYSICAL FORCES AND BONDS

How did the material goods of the world become so unevenly distributed? Why does the white man have so much cargo? Well, what is the basic operation under consideration? Movement and change! To take on some new quantity or quality is to change, and to move and change towards a goal, an agent needs to overcome natural oppositional energies, contrary forces inherent to nature, that work against the agent's effort. Adrian Bejan, the J.A. Jones Professor of Mechanical Engineering at Duke University, commented, "All movement requires overcoming resistance forces, which means that life requires overcoming those forces. Getting up from your chair requires you to usurp gravity. Walking or swimming from here to there requires you to overcome friction. Resistance is an inherent part of life."³ The attractive gravitational force that works between my center of mass and the Earth's center of mass always functions to keep my body, all bodies, stationary. The friction that happens when I try to slide forward in my chair operates against my body's attempts to gain forward momentum.

We are so accustomed to this kind of force configuration that, when casually observing the everyday objects in our world, we don't really think about those working forces. Even as I write this sentence, my desk is littered with objects that have a multitude of forces working on them and in them, but none of them are moving, at least not in any visible way. They exist in a state of static equilibrium because all of those forces exactly cancel out. For the pen on my desk to move, I would have to apply a sufficient amount of kinetic energy to it, and once I have

³ In a meeting that I had with him in his office.

transferred enough kinetic energy to the pen, it will move in the direction that I apply that energy. When my pen lies there motionless, however, I do not think about forces acting on it. Nevertheless, those forces still do their work. Man must have advantages that, whatever their kind, overcome these oppositional forces.

Overcoming oppositional forces doesn't happen, general speaking, spontaneously. Spatial, quantitative, and qualitative transformations do not just happen. Changing from place A to B by physical movement or changing the quality or quantity of a system from X to Y by some means always requires work.

Work is a common-sense concept. We know what it means intuitively: we go to work in the morning; we work in the garden; we work on lots of things throughout the day. In our common understanding, doing work means accomplishing something, completing a task, overcoming an obstacle. However, physics gives us a more precise definition of work and how we measure it, *multiplying the amount of external force exerted on an object by the displacement of that object and by the angle between the force and the displacement vector*

$$(W = F \cdot d \cdot \cos \Theta).$$

Bejan succinctly clarifies the significance of this equation, ". . . Movement requires work spent and work requires food," and food is energy.⁴ Since work requires some force, then changes in position, quality, or quantity (process) demand some force, and since force requires energy, progress requires energy.

Energy is the animating principle of movement, and all movement requires energy. In the final analysis, energy is the ultimate cause because it is the thing that makes all progress, all life, possible

⁴ Adrian Bejan, *The Physics of Life : The Evolution of Everything*, Unedited Proof ed. (New York City: St. Martins Press, 2016), 15.

As that history of our present world unfolds, it will become clear that Man needed to transform and possess a variety of energies in His world-making endeavors. Obtaining, retaining, and directing a wide variety and immense quantity of natural forces (and human emotional and intellectual forces) helped Man advance His grand vision for the natural order. These energies were vital to achieving his goal. They were his ultimate advantage.

Energy is Often Unavailable Because it is Doing Other Work

Unfortunately, a vast majority of nature's energy is unavailable for particular types of work, like the mechanical work Man wanted to execute, because it's already engaged for another purpose. Like the electromagnetic forces that bind atoms and molecules into the world's matter, much of nature's energy works to hold things together. It is already in-use energy, and this energy doesn't spontaneously yield itself up as a form of energy useful to Man's machines. Consequently, the vast resources of natural energy remained hidden and unavailable to Man because they confine energy inside of highly organized, stable bonds.

Brian Greene explains the phenomenon using chicken's eating their morning feed as an example, "The energy the chicken takes in from its feed has low entropy [i.e. It is highly organized] and is ; life chicken, and every life form in fact, is a conduit for taking in low-entropy energy [organized] and giving off high-entropy [less organized] energy."⁵ "Low-entropy" energy means highly ordered energy orchestrated by a complex set of bonding forces that coordinate and contain that energy for a purpose internal to the structure created by those energies. The fact that the vast majority of the universes' forces are unavailable posed a problem for Man, at least regarding utilization for his purposes. Obtaining unavailable energy, in the quantity and quality

⁵ B. Greene, *The Fabric of the Cosmos : Space, Time, and the Texture of Reality*, 1st ed. (New York: A.A. Knopf, 2004), 170.

that he needs, required other advantages, proximal advantages, capable of liberating the energy and then commanding it after liberation.

Binding Forces Make Life Possible

While these bonding forces prevent Man from immediately accessing nature's energy, they work spontaneously, naturally to make all life possible by binding the matter of the universe into coherent, ordered, and patterned structures that function with remarkable predictability and also exceptional flexibility. Were it not for these binding forces, life simply wouldn't exist.

Physicists posit that, shortly after the Big Bang, all of the gas produced by that bang was "uniformly spread throughout the young universe," and with those gasses evenly spread out, it was impossible for life to form.⁶ However, we have to inquire about how these clumps of matter formed if the gasses were uniformly spread? Gravity! It is "a universally attractive force: hence, if you have a large enough mass of gas, every region of gas will pull on every other and this will cause the gas to fragment into clumps, somewhat as surface tension causes water on a sheet of wax paper to fragment into droplets."⁷ Besides the binding gravitational force, there is also the electromagnetic force, the nuclear strong force, and the weak force, and all of these forces coordinate to make life possible. Howard Thurman eloquently describes, from a Christian perspective, the nature and function of these forces and the processes whose outcome they determine,

When I was a boy I regarded the stars as fixed, stationary objects in the sky above; in fact, there was a period when I thought they were peep holes through which God looked down upon the world. The vast cosmic processes gather in their sweep not only energy transfers and transformations that alter the form and the shapes of units in the universe, but also the progressive or evolutionary changes in the universe as well. Such processes account for the origin and *flux* of matter itself. In a word, it seems that such processes are in part observed to be

⁶ Ibid., 171-2.

⁷ Ibid., 172.

expressions of meaningful patterns or constructs. . . There seems to be a vast, almost incomprehensible interrelatedness tying all together.⁸

As the binding forces of nature perform their work, holding things together, their law-governed actions present tremendous problems for agents hoping to utilize them for work that differs from what they are already doing. For Man, these forces that direct their work towards holding things together in meaningful patterns and constructs prevent him from using their energies to pursue freedom and control over natural systems.

Francis Bacon knew this, and the quote at the beginning of the chapter speaks to his penetrating insight, "For the chain of causes cannot by any force be loosed or broken, nor can nature be commanded except by being obeyed. And so those twin objects, human knowledge and human power, do really meet in one; and it is from ignorance of causes that operation fails."⁹ Bacon understood that natural processes do not spontaneously unfold in accordance with the scope and ambition of Man's desire. Unquestionably, natural processes spontaneously occur in ways that enable human beings to live and flourish. Chickens convert feed energy into the kind of energy they need to fuel their bodily processes, and human beings, in turn, do the same.

The immense scope of Man's desire falls outside of nature's spontaneous processes, however. To put this another way, to achieve His vision, Man will have to interfere with those processes. He will have to make the bodies and energies of nature behave unnaturally. He will have to manipulate the natural order of things and turn it on its head, creating an unnatural order. Ultimately, He will need advantages that can bend nature in service of His will, which is precisely what Bacon offered to the European world, when wrote, in words that strike a

⁸ Thurman, 30-31.

⁹ Bacon, Kindle Locations 464-65.

messianic tone, “I come in very truth, leading you to nature with all her children, to bind her to your service and make her your slave.”¹⁰

TECHNOLOGIES THAT RUPTURE PHYSICAL BONDS

Fire, Molecular Bonds, and the Physics of World Making

To paint a clearer picture, we can concretize these ideas by exploring the two primary advantages that made restructuring the world possible: thermal and human energy. Throughout history, fire has been a principal source of Man's movement across the globe, as Bejan explains,

Fire means more movement of human mass on earth. Fire accounts for many technologies that enable humans to move more easily for greater movement on the landscape. Fire represents instant and portable shelter, and shelter is good for the continuity of movement. With fire early humans no longer had to depend on caves for warmth, dryness and safety. With fire, humans fended off not only predators and pests but also diseases and threats from neighbors. With fire, humans had a way to communicate long distances, to navigate and to alert the clan. . . . The monumental position of fire was reaffirmed by the Industrial Revolution, when the invention of the heat engine meant a dramatic increase in power for human use. Fire generated power [i.e. it released energy and force] from an inanimate object (first coal, later oil), not from animals and slaves.¹¹

Because fire produced freedom and facilitated movement, it was an essential advantage that aided Man in the modern-colonial project, and the one who had access to the most heat had access to the greatest amount of freedom to move and capacity to control His environment. Understanding the rupturing process and the advantages that facilitate that process will open a window into how social advantages, like racial and class identity, function.

Exploring the intricacies of fire advantages seems rather appropriate because, like many advantages, we have become so familiar with it that it operates on an invisible level. We rely on it almost every moment, and yet we are completely unaware of its presence. We don't think

¹⁰ Quoted in Anne McClintock, *Imperial Leather : Race, Gender, and Sexuality in the Colonial Contest* (New York: Routledge, 1995), 23..

¹¹ Bejan, 31.

about the great advantage that fire provides when we turn the key to our car engine in the morning or when we turn up the thermostat on a cold winter day. We simply know that we have gone from point A to B and that our house has gone from temperature C to D. We do not let out a sigh of thanksgiving when our plane takes off and carries us to see our loved ones or to a business meeting. We climb aboard the plane, read the paper or watch a movie during the flight, and deplane once the pilot turns off the seatbelt sign. Fire, like so many advantages, operates in the background of our consciousness. It has become an advantage that we take for granted. That was not always the case.

In the 18th century, European slave traders were acutely aware of fire's essential role in their success or failure. They benefited from a variety of new advances in technology that gave them radical advantages in their uncertain enterprise that was forever threatened to destroy their cargo. Disease and hunger were some of the greatest threats to success, and so food, *properly prepared food*, was essential.

Naturally, advances in ship galleys were an especially significant advantage that slavers began to enjoy in the 19th century. Fredrick Wallace lauded the great benefit these technologies provided, "Many shore living people are unaware of the power invested in the ship's cook. They are also unaware of the importance of the galley and its furniture in relation to the welfare of ships and sailors. To landsmen it is as ordinary and commonplace an institution as the mast and gear of the vessel, but to the sailors, who view things through different eyes, these things are of overwhelming importance."¹² The stove was the centerpiece of the slave ship, the essential technology that made eating the bare necessities and enjoying comforting luxuries, like coffee,

¹² Fredrick William Wallace, *Around the Galley Stove: A Dissertation Upon Stoves Galleys Cooks Ships and Sailors in General* (The Stamford Foundry Co, 1911), 1.

possible. Wallace, completely oblivious to the racial dynamics in play, retells what he perceives to be a funny anecdote,¹³

The colored cook on an American ship used to have a fearful time with his stove in getting it to burn, and when he did get it alight, it took an interminable time to heat up anything. The watch on deck would be hanging around in the early morning, waiting for coffee, and asking the cook, every now and again, when it was going to be ready. The mate was also impatient, and seeing 'The Doctor' [a common name for the cook] fussing around, hailed him, 'Say, cook, w'en th' devil air ye going' tew hev that cawfee ready?' The old cook sang out, 'Coffee all ready sar, but de water no boil yet.'¹⁴

The fire from stoves killed bacteria in food, warmed cold bodies, created anxiety and fear in cooks, provided a space for community building, and yielded countless other benefits. The story of the "colored cook" also reveals a weakness in fire, a limitation to its benefit. Stoves were prone to go out and were terribly inefficient in their ability to transfer heat from the fire to the food,

The galley stove plays a big part in the working of the ship, and if the stove won't go, it leads to trouble all around. . . . In bad weather of the high altitudes, the poor cook had a hard job to keep his stove alight, and very often he was washed out of his galley by a cataract of sea, and hurled into the scuppers, pots, pans, and paraphernalia clattering after him. This was no joke at any time, however humorous it may appear, for when the galley fire is washed-out, it means that the crew cannot warm their frozen bodies by any cooked food, but have to content themselves with a smoke, a chew on some cold grub, and another hole in the belt.¹⁵

¹³ At this point, you will no doubt notice that I am completely ignoring the racial aspects of this story. That is intentional. I will return to it later.

¹⁴ Wallace, 51.

¹⁵ *Ibid.*, 53.

Indeed, fire was so central to the modern-colonial project that thermal technology was one of the first contrivances that Olaudah Equiano encountered when his captors hoisted him onto the first slave ship he was forced to inhabit. He narrates, “When I looked round the ship too and saw a large furnace or copper boiling, and a multitude of black people of every description chained together, every one of their countenances expressing dejection and sorrow, I no longer doubted of my fate; and, quite overpowered with horror and anguish, I fell motionless on the deck and fainted.”¹⁶ He also points out the dangers of fire—and, importantly, how advantages are teleological things, “One day in our passage we met with an accident which was near burning the ship. A black cook, in melting some fat, overset the pan into the fire under the deck, which immediately began to blaze, and the flame went up very high under the foretop. With the fright, the poor cook became almost white, and altogether speechless. Happily, however we got the fire out without doing much mischief.”¹⁷ Even though fire came with a significant threat, it was one principle physical advantage that made the slave trade possible.

Even though heat energy offered the promise of globally transformative power, it had significant drawbacks, as the disastrous ship blazed I mentioned earlier reveals. Everyone who worked with fire had to attend it vigilantly because it could destroy the ship in a moment, and its fuel source required constant replenishment. But it posed far more complicate problems than these.

In the 19th century, heat energy was particularly problematic because those attempting to utilize it as a motive force in engines couldn't fully understand how it operated. Fire and the heat

¹⁶Olaudah Equiano, *The Interesting Narrative of the Life of Olaudah Equiano, or Gustavus Vassa, the African Written by Himself*, (Printed for and sold by the Author, No. 10, Union-Street, Middlesex Hospital, 1789). Kindle Edition. p. 25.

¹⁷*Ibid.*, 110.

that it produces behave in mysterious and unpredictable ways. This problematic nature was at the heart of Sadi Carnot's research on heat engines,

Machines which do not receive their motion from heat, those which have for a motor the force of men or of animals, a waterfall, an air-current, etc., can be studied even to their smallest details by the mechanical theory. All cases are foreseen, all imaginable movements referred to these general principles, firmly established, and applicable under all circumstances. This is the character of a complete theory. A similar theory is evidently needed for heat-engines. We shall have it only when the laws of Physics shall be extended enough, generalized enough, to make known beforehand all the effects of heat acting in a determined manner on a body.¹⁸

Newton, in the 17th century, successfully constructed a theory of motion that enabled prediction because it built on principles general enough to apply to all cases of a special type. This wasn't the case with heat energy, though, and over the last three-quarters of the 19th century, physicists, mathematicians, chemists, and engineers like Carnot, labored tirelessly to observe, measure, and quantify the natural processes that induced heat and in that research, they would uncover the fundamental principles governing the dynamics of heat, throwing back the curtain on the limitations it posed and the kind of advantages needed to overcome those difficulties?

These necessary principles of energy transformation and heat flow explain why bonds have to be broken to obtain heat energy, and they reveal inexorable natural patterns that necessitate the transfer of heat energy once those bonds have ruptured. An immediate problem that Man faced, the chemical bonds that hold things together and prevent heat from flowing freely. To get a visual sense of the bonds that have to be overcome in heat production, consider

¹⁸ Sadi Carnot, *Reflections on the Motive-Power of Heat, and on Machines Fitted to Develop That Power*, trans. N.L.S. Carnot, Second ed. (New York: John Wiley & Sons, 1890), 44. As will become clear throughout this work, Man continually displayed a passion for predicting the outcome of natural processes, for knowing the general principles that could be applied universally because understanding and measuring creation help him gain His “freedom,” control, and power.

lignin, a complex polymer in hardwood that is comprised of hydrogen, carbon, and oxygen atoms,

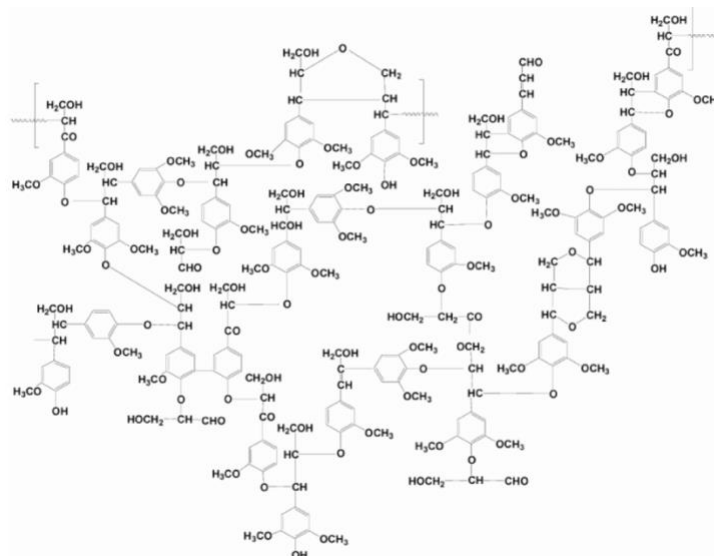


Illustration 2¹⁹

Each of lignin's atomic bonds and their molecular systems retain tremendous heat *potential*. In their current condition, though, all the energies contained in each atomic system and the system as a whole balance out with their internal environment and external environment. They maintain equilibrium with each other and with their surrounding environment.

Not only do they persist in equilibrium, but in that state, they engage in meaningful work. On an individual, molecular level, carbon, hydrogen, and oxygen atoms have configured themselves into relationships that minimize their energy levels, and this precise, balanced order serves a critical function in dry-land plant wall cells—namely, holding the hardwood together in

¹⁹ Mihai Brebu and Cornelia Vasile, "Thermal Degradation of Lignin—a Review," *Cellulose Chemistry and Technology* 44, no. 9 (2010): 354.

a harmonious totality that enables the tree to flourish.²⁰ Of this phenomenon, Leonard Hayflick notes, “*The prevention of chemical bond breakage, among other structural changes, is absolutely essential for life. Through evolution, natural selection has favored energy states capable of maintaining fidelity in most molecules until reproductive maturation.*”²¹

The combustion process that disrupts the fidelity of natural bonds follows a general and predictable pattern, which is depicted in the figures below.

Exothermic Reaction

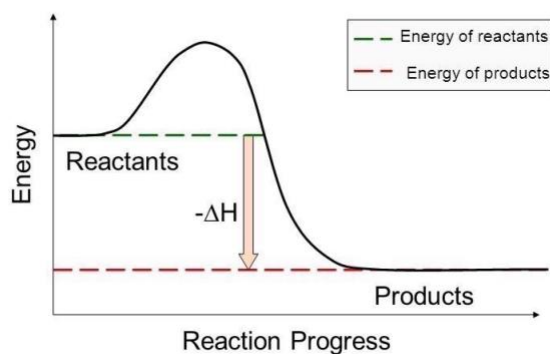


Illustration 3²²

²⁰ This highly structured combination of masses and their energies work in relation with the other hardwood molecular structures in a way that is "analogous to that of epoxy resin and glass fibers in a fiberglass boat. The fibrous components, cellulose or glass fibers, are the primary load-bearing elements while the matrix, lignin or epoxy resin, provides stiffness and rigidity. Thus trees (lignin content between 20% and 30% of dry weight) grow much taller than grasses (lignin content below 20% before they bend under their own weight." "What Is Lignin: Occurrence, Chemical Structure, Function," Lignoworks: Western University Institute for Chemicals and Fuels From Alternative Resources, <http://www.icfar.ca/lignoworks/content/what-lignin.html>.

²¹ Emphasis added. Leonard Hayflick, "Entropy Explains Aging, Genetic Determinism Explains Longevity, and Undefined Terminology Explains Misunderstanding Both," *PLoS Genet* 3, no. 12 (2007)..

²² Kathleen Pitman, "Exothermic Vs. Endothermic," (2014).

The first diagram pictures the primary process. Energy interacts with a set of reactants that contain discrete energy quantities—the reactants on left-hand side of the diagram have 10 units of energy. Once they have absorbed enough energy, the individual atoms in the reactants separate. Once separated, they bind to other atoms (products which have 8 units of energy). In a reaction that emits heat (exothermic), the new bonds (products) have less total energy than the original bonds (reactants), and because energy universe laws demand the retention of all energy, they emit that excess energy by radiating heat and light.

That general view, however, doesn't fully illuminate how bodies and their energies transform in the process. We can gain a helpful and more detailed image of what happens by looking at the combustion of a typical hydrocarbon fuel source,

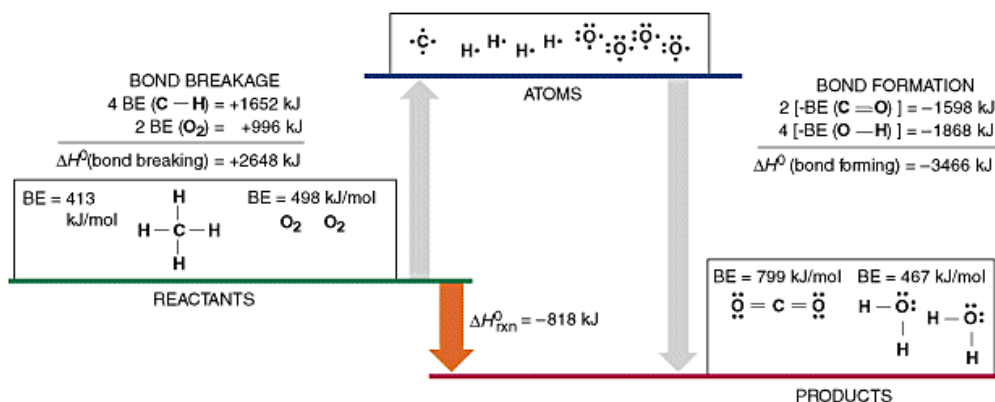



Illustration 4²³

²³ Kent Chemistry, "Bond Enthalpy (Bond Energy)," <http://www.kentchemistry.com/links/Kinetics/BondEnergy.htm>.

Beginning on the left-hand side of the diagram, 1 hydrocarbon ( or CH₄) reactant is positioned beside 2 oxygen molecule reactants (O₂ O₂) at the green line, which represents the initial bond reactants in their normal state (essentially, room temperature under normal pressure). The bonds that hold these elements together are critical because those bonds represent the total energy available for transformation into light and heat. That bond energy represents the total energy available to Man.

When a system or substance, like firewood, absorbs heat, the bonds holding those compounds together change from their ground state to an elevated state (the first difference), and once they have absorbed enough heat energy, they rupture, thus allowing the element constituents to float freely (the top middle of the diagram).²⁴ In this case, 2648 units (kJ) of energy are added to the existing energies of the system.²⁵

Once the atoms individuate, the energy stored in those bonds and some of the energy that was added to the system is free, or available, to do another kind of work. Before they were individuated, however, their energies were tied up, already fully utilized in the work of helping the tree flourish, but now their initial energy and the additional energy imparted to them by the fire is available for utilization. Utilization, at this stage of the reaction, though, doesn't mean by

²⁴ Every molecular structure requires a precise quantity of energy to form or disintegrate. In the case of this reaction, the molecules on the left (CH₄ and 2O₂) have a bond energy of 2648 units (kJ/mol), which means that the cook will have to insert that amount of heat energy in the system to break all of those existing bonds. Once those first few molecules have broken apart, their freed constituents quickly form, under the right conditions, new bonds, the products of the reaction (CO₂ and 2H₂O). These products have a total bond energy 3466, and since we are talking about bond formation, not breakage, that 3466 = -3466, the amount of energy that is used up or emitted in the formation process. At the end of the reaction, we have a difference of -818 energy units (kJ).

²⁵ An important note, the units that scientists gave to energy (kilojoule) is a measure attributed by Man that correlates to the amount of work required to break the system apart or which is potentially available in the system. Here again, creation is named according to use value.

Man, because no heat is emitted at this stage. Rather, the energy of the individual atoms is available to form new atomic bonds.

Heat only arises at the end of the reaction! Heat flows out of the system when the *individuated atoms follow the path of all natural processes, they seek to minimize their energy levels and return to their ground state by forming new bonds.*²⁶, which means that their energy levels decrease during bond formation. *In the combustion of hydrocarbons, the carbon, hydrogen, and oxygen atoms that were freed up at the beginning of the combustion process tend to combine into CO₂ and H₂O molecules, configurations that accord with all natural processes that reduce the energy states of both molecules to their lowest, most stable energy state.* If this reduction in energy is greater than the energy stored in the original bonds, photons carry the additional energy into the ambient in the form of light and heat. At the end of the reaction, the 818 kJ of residual energy is, to Man's potential advantage, rejected into the surrounding environment.

This rejected energy is valuable!! It could be transferred into meat, coffee, gun powder, et cetera, and that transfer did valuable work. It killed food borne bacteria that could kill sailors and slaves. It warmed beverages that gave sailors a sense of comfort and home. It propelled bullets and cannon balls.

²⁶ This is the function of the Gibbs free energy theorem ($\Delta G = \Delta H - T \Delta S$). Reactions that minimize free energy are more likely to happen spontaneously, which means that nature has a tendency towards balanced energy distributions that make life possible by enable stable relationships. To state this differently, a set of relations marked by tremendous energy imbalance where too much energy concentrates in one location hinders stable, productive, life giving relationships. relationships produces stable relationships. This natural tendency should prompt us to carefully consider the relationship between natural systems that facilitate life, social systems, and our contemporary form of capitalism that produces radically imbalanced distributions of global capital (i.e. energy). For more on free energy and spontaneous reactions, c.f. Berk A Lodish H, Zipursky SL, et al., *Molecular Cell Biology*, 4th ed. (New York: W. H. Freeman, 2000).

I wanted to lay out, as precisely as possible, the underlying principles of fire production because there are similar principles that influenced the social processes that made our contemporary world. To summarize, the principles are as follows,

1. Insert energy into a system of bound objects that exist in equilibrium
2. The excess energy ruptures the existing system and individuates the particles that now float freely, unattached to anything else
3. The individuated particles spontaneously bind with new particles because they cannot exist in isolation. They spontaneously “seek” out a relationship that minimizes their energy level
4. The bound particles shed excess energy by emitting heat and light

The ability to produce fire rests on the ability to break the bonds that hold things together. This rupture begins with the collection of fuel. Trees had to be detached from their roots. Coal had to be extracted from the ground. Then the molecular bonds that hold the substance together had to be shattered so that the individual parts (the atoms) could float freely and then bind together into a new set of relations. This new set of relations grounded the energies of the various parts, but there was energy left over, and so that new system ejects the energy by giving off heat and light.

How does that play out in social systems? I see striking similarities, but I have not completely established a complete theory, but here is a thumbnail sketch of the preliminary hypothesis, which will examine more closely in the next chapter,

1. Foreign material and intellectual energy (ideas about what is good and true) were inserted into African social systems via concrete human practices.
2. Those energies and practices ruptured African bonding patterns. They changed the primary objects that African’s desired (emotional bonds) and the objects they thought

were good (intellectual bond). Under the old bonding arrangements, individuals were emotionally and intellectually bound to the land and their community. Under the new, European bonding arrangement, individuals were emotionally and intellectually bound to inanimate objects: guns, jewelry, alcohol, etc. . . . This was a kind of individuation.

3. The emotional and intellectual bonds individuals formed with inanimate objects are inherently less durable than a relationship with the land and other human beings. Consumed goods are consumed quickly and they break easily, thus creating a semi-perpetual state of ungrounded, anxious individuation. Once the individual has used up whatever inanimate good she has bound herself to, she has to seek another binding agent because she is not stabilized by a larger network of more stable relationships (land and community).
4. There is always excess energy, in the form of fear, anger, etc . . . produced in the detachment and reattachment process, and that excess energy is emitted in the form of action: procuring more goods, violence, alcoholism, etc. . .

Let's examine some of the details.

CHAPTER 2: RUPTURING EMOTIONAL AND INTELLECTUAL BONDS

Human beings possess more than bodily energy. They are complex organisms comprised of physical, emotional, and intellectual energies, and the synthetic interrelating of those energies govern their movements. Their actions are determined by more than the laws of mechanics, and, therefore, Man had to influence, in one way or another, the emotions and ideas of everyone He encountered on His quest to refashion the world. Everyone would have to cooperate with his vision of the world: willingly or by force. Resistance had to be converted into cooperation or it had to be extinguished.

Problematically for Man, the rest of the world thought very differently than He. By the 16th and 17th centuries, the world's non-European peoples had developed patterns of feeling, thinking, and acting that were different from the dominant European patterns of feeling thinking, and acting, and those patterns functioned like a kind of binding energy that bound the individual to the community and that bound the community together as a whole. Just like the atomic energies of carbon, hydrogen, and oxygen in wood structures are engaged in the work of keeping the tree together and alive, the individual and collective emotional and intellectual energies of human beings are engaged in the work of holding individuals and communities together. When Man encountered people that didn't share His emotional and intellectual attachments, some kind of reformation had to be undertaken because unless Man could redirect the whole person (body, passions, and mind) towards His purpose, the physical energy of the people He encountered would be more or less resistant.

In this chapter, we will explore some of the emotional and intellectual bonds that prevented man from accomplishing his purposes and the technologies that he used to sever them. First, we will look at the intellectual and emotional bonds that held African individuals and

communities together and worked against his purposes. Second, we will examine how his economic practices and how the slave ship's social ecology disturbed those bonds. Third, we will examine how European ethical norms served as a binding force that prevented the expression of their most violent and lustful passions and how they worked around that problem by mentally dividing up reality. Finally, we will examine the underlying tool that He used to rupture the world: naming, labeling, or categorizing.

THE PROBLEM POSED BY THE INTELLECTUAL AND EMOTIONAL BONDS OF AFRICANS

The bodily, emotional, and intellectual bonds that held African communities together are a principle example of the kinds of bonds Man had to disrupt. When slave traders captured an African and placed him on a ship, they only had a body. The rest of the person, her emotions and her mind, were still bound to her old way of life. Olaudah Equiano's experience is paradigmatic.

Equiano was born in 1745 and raised in the kingdom of Benen, in a remote and naturally lush province called Eboe. In this place, his community flourished, and he flourished as a son and brother. Before Equiano's captors kidnapped him at age 11 and carried across the African continent to a slave ship, his bodily and psychic energies were bound to a complex emotional, intellectual, and social network that guided his thinking, feeling, and acting. These networks drew upon his energies for strength and stability, and they reciprocated in kind. Utilizing Equiano's physical, intellectual, and emotional energy for, what he calls, the "avarice" of slave traders, required forcefully severing *all* of the bonds that tied him to his community and then binding him to a new web of relationships.

His *mental energies* had been bound to a future that was determined by his family and the larger community within which that family existed. He was the son of the village an esteemed village elder who had been marked with distinction "by cutting the skin across at the top of the forehead, and drawing it down to the eye-brows; and while it is in this situation applying a warm

hand, and rubbing it until it shrinks up into a thick weal across the lower part of the forehead.”¹

The same mark was given to his brothers, and he was also “destined” to receive it when he came of age. This mark and the position of those who bore it meant that Equiano’s intellectual energies were destined for “deciding disputes and punishing crimes,”² like all the other leaders bore that mark.

In addition to the focus of his mental energy, the contents of his mind were also determined by and bound to his people beliefs and customs, which had formed, like all communities form, Equiano’s ideas about what constitutes right action and what constitutes wrong action. They had shaped his vision of the world and how to properly live in relationship with it. This is apparent in how his people’s ideas about how to understand the earth’s produce,

Our land is uncommonly rich and fruitful, and produces all kinds of vegetables in great abundance. We have plenty of Indian corn, and vast quantities of cotton and tobacco. Our pine apples grow without culture; they are about the size of the largest sugar-loaf, and finely flavoured. We have also spices of different kinds, particularly pepper; and a variety of delicious fruits which I have never seen in Europe; together with gums of various kinds, and honey in abundance. *All our industry is exerted to improve those blessings of nature.* Agriculture is our chief employment; and everyone, even the children and women, are engaged in it. Thus, we are all habituated to labour from our earliest years. Everyone contributes something to the common stock; and as we are unacquainted with idleness, we have no beggars. The benefits of such a mode of living are obvious. The West India planters prefer the slaves of Benin or Eboe to those of any other part of Guinea, for their hardiness, intelligence, integrity, and zeal. Those benefits are felt by us in the general healthiness of the people, and in their vigour and activity; I might have added too in their comeliness.³

His report reveals immediately noticeable differences between Eboa and European ethical systems. Their environmental ethic is focused on mutuality and respect, not domination and profit. The Eboa were thankful for what the land gave them, and they gladly gave back to it. For

¹ Equiano, 8.

² Ibid.

³ Ibid., 12.

the Eboa, unlike Europeans, the land wasn't good because its produce was sellable at the market. It was good because it produced food for consumption. It kept them alive and provided a small measure of physical pleasure. Second, the Eboa people viewed human labor and its production differently from European peoples. As Willie Jennings points out, "The idea of production primarily for exchange rather than communal use was destructively alien. . . . However, this communal metaphysic was being slowly eroded by an unbelievably virulent form of contractual individualism underwritten by sheer violence and European technological mastery. Workers were objectified along with their labor, their products, their land, their animals, their loves, their hates, their hopes, their dreams, and all their everyday practices."⁴

In addition to shaping the direction of Equiano's mental energy and the contents of his mind, the land and community Equiano lived in shaped his *bodily appetite*. They determined what and how he desired material goods. He didn't desire luxury, strong drink, or ornament because he grew up among a people whose manner of living was "entirely plain." They ate food that was only lightly seasoned, they did not invest their time and energy creating personal adornments, and their architectural practices focused on convenience rather than decoration. For a European, the life of the Eboa people was ascetic.

Most profound, though, among the bonds that occupied Equiano's energies was the intense love that he developed for his family, especially for his mother and his sister. These bonds were so powerful that they influenced him long after Europeans detached him from his community. For love of his mother he endured the terror of attending "frightful religious" ceremonies, and he even refused to be parted from her when she was cloistered because of

⁴ Willie James Jennings, *The Christian Imagination : Theology and the Origins of Race* (New Haven Conn.: Yale University Press, 2010), 172.

menstruation.⁵ He writes, "I was so fond of my mother I could not keep from her, or avoid touching her at some of those periods, in consequence of which I was obliged to be kept out with her, in a little house made for that purpose, total offering was made, and then we were purified."⁶ The emotional bond that ties him to his sister were even stronger, and the pain of being separated from her was almost unbearable. They were both captured at the same time and, in the moment of grace, the two of them were briefly reunited,

Even this small comfort was soon to have an end; for scarcely had the fatal morning appeared, when she was again torn from me for ever! I was now more miserable, if possible, than before. The small relief which her presence gave me from pain was gone, and the wretchedness of my situation was redoubled by my anxiety after her fate, and my apprehensions lest her sufferings should be greater than mine, when I could not be with her to alleviate them. Yes, thou dear partner of all my childish sports! thou sharer of my joys and sorrows! happy should I have ever esteemed myself to encounter every misery for you, and to procure your freedom by the sacrifice of my own. Though you were early forced from my arms, your image has been always riveted in my heart, from which neither time nor fortune have been able to remove it; so that, while the thoughts of your sufferings have damped my prosperity, they have mingled with adversity and increased its bitterness.⁷

I do not intend to offer here an exhaustive account of all the emotional and intellectual bonds that bound Africans to their land and peoples. I only want to establish a common-sense principle. To fully utilize the bodily energy of the African, Man would have to shatter the emotional and intellectual bonds that guided African bodies back to their old forms of living. In fact, Orlando Patterson identifies this as one of the distinguishing marks of North Atlantic slavery. Only slaves had been alienated from all "ties of natality."⁸

⁵ Equiano, 9.

⁶ Ibid., 15.

⁷ Ibid., 23.

⁸ Orlando Patterson, *Slavery and Social Death : A Comparative Study* (Cambridge, Mass.: Harvard University Press, 1982), 26.

However, the emotional and intellectual energy that tied the world's peoples to their land and communities were often intense, and breaking these immaterial bonds require Man to insert foreign energy into systems existing in relative equilibrium. This is true of cultural systems and of the complicated emotional, intellectual, and spiritual systems of the individual. To destroy this balance and extract the maximum amount of useful energy, Man needed advantages capable of doing psycho-spiritual work, and anything that works on the human psyche in a way that benefits Man's end was an advantage of incalculable benefit.

TECHNOLOGIES THAT RUPTURED AFRICAN INTELLECTUAL AND EMOTIONAL BONDS

But how does one locate advantages that execute psychological work? It is the same principle as physical work! We look for motion. In his summary Newton's laws of motion, Richard Feynman encouraged, "pay attention to the forces.' If an object is accelerating, some agency is at work; find it. Our program for the future of dynamics must be to find the laws for the force."⁹ When a slave ship loaded with human cargo accelerated and traveled from Africa's west coast to the Americas, mechanical work was evident. This knowledge derives from Newton's first law of motion, "Every body preservers in a state of rest, or in a uniform motion in a right line, unless it is compelled to change that state by forces impressed thereon."¹⁰ Physical work is something we can observe and measure because things go from a state of rest to a state of motion because some force compels them to move. Work is a measure of that force.

The same is true for things that do emotional and intellectual work. When someone's emotional state moves, some agency is at work; find it. When an idea dissolves or forms, some force is working on the mind. Things that move minds and the emotions are doing a kind of

⁹ Richard Feynman, *The Feynman Lectures on Physics: Laws of Dynamics*, (Pasadena, CA: California Institute of Technology, 2013).

doi:http://www.feynmanlectures.caltech.edu/I_09.html.

¹⁰ Principia, 83. http://docs.lib.noaa.gov/rescue/Rarebook_treasures/QA803A451846.PDF.

work, and the greater movement, the greater the force exerted by the thing doing work. The mystics and prophets understand this mystery. Rumi wrote,

Surely there is a window from heart to heart:
they are not separate or far from each other.
Though two earthenware lamps are not joined,
their light mingles.

No lover seeks union without the beloved also seeking,
but the love of lovers makes the body
thin as a bowstring,
while the love of loved ones
makes them shapely and pleasing.

When the lightning of love for the beloved
has shot into this heart,
note that there is love in that heart.
When love for God has been doubled in your heart,
there is no doubt that God has love for you.

No sound of clapping comes forth
from only one hand.
The thirsty man is groaning, "O delicious water!"
The water is calling,
"Where is the one who will drink me?"
This thirst person our souls is the magnetism of the Water:
we are It's, and It is ours.

Divine wisdom decreed us lovers of each other;
all the particles of the world
are fated to be in love with their mates,
just as ember attracts straw.
Heaven says the Earth,
"Welcome, we are magnetized to each other." ¹¹

The object of love (the beloved) exerts an invisible force, a magnetic force that stirs love within the lover and draws her near. Rumi's point is that love does not arise without the exerted force that originates in the beloved. Love cannot arise on its own, "No sound of clapping comes forth from only one hand." Both subject and object must exert force on each other, drawing the other near, and as passions move reciprocally under the influence of that force, subject and object, lover and beloved, know not only that love exists in themselves, they also grow in certainty that

¹¹ Jalāl al-Dīn, Helminski, and Rezwani.

the same love exists in the lover. This idea that the external world moves our emotions is embedded in our everyday experience, and we articulate it in our common language. We frequently speak of events us to tears or of the emotions working the other way around, pushing and pulling on the body in one direction or another.

The young Olaudah Equiano certainly understood this chain of cause and effect and the extraordinary force that life's surprises could exert on his intellectual and emotional formations, and he also understood how that those ideas and emotions reciprocated by pushing on the body. For a brief moment, early in his life, Equiano managed to find a small measure of stability and happiness as the property of a master and slave ship captain. The captain taught him European manners of dress and comportment, the English language, and even how to read the Bible, and these kindnesses induced strong feelings in the young boy, so strong that he freely admitted, ". . . I almost loved him with the affection of a son. Many things I have denied myself that he might be happy . . ." ¹² However, this affection for the beloved was not reciprocated, and it was destroyed when, on a whim, the captain sold him. As the grief-wracked Equiano sailed away on his new ship, he lamented, "My master, having soon concluded his bargain with the captain, came out of the cabin, and he and his people got into the boat and put off; I followed them with aching eyes as long as I could, and when they were out of sight I threw myself on the deck, while my heart was ready to burst with sorrow and anguish." ¹³ Equiano's emotions worked on him like a fluid, filling up the volume of his body, pushing on the edges of his flesh, to the point that it threatened to shatter the joints and sinews that held him together.

Later in his life, he experienced the relieving, pressure diminishing experience of Christian conversion where the force that sin exerted on his soul evaporated, "I felt an

¹² Equiano, 53-54.

¹³ Ibid., 55.

astonishing change; the burden of sin, the gaping jaws of hell, and the fears of death, that weighed me down before, now lost their horror; indeed I thought death would now be the best earthly friend I ever had. Such were my grief and joy as I believe are seldom experienced." Equiano's emotions exert force on his material being, and his material being in turn exerts force on the world. His passion is pushed, pulled, weighed down, and buoyed by the human experience of materiality.

My idea is modest. If we want to understand what kind of advantages that shattered the emotional, intellectual, and psychological bonds of Africans, all we need to do is find the objects that precipitated the emotional, intellectual, and psychological transformations that African peoples experienced.

Economic Practices as Rupturing Technologies

To move the African's passions and the intellect, Man used the kinetic, physical energies of violence and domination. These physical energies transformed the fundamental passions directed towards survival into something new. Inside the original communities that stabilized the African's emotional and intellectual energy, filial fear bound communities into symbiotic communities that shaped identities in life-giving ways. This filial fear motivated the individual to conform to the social practices and norms of the community, in part because the individual wanted to avoid exclusion, isolation, loneliness. But there was more. This filial fear evoked conformity by compelling the individual, out of love produced by intimacy, to concern him or herself with the emotional well-being of the others. The individual feared injuring the people she loved and hopes to avoid that injury out of love.

Certainly, some slave masters would work to induce this kind of fear in their slaves. This fear develops in Equiano with regards to the ship captain he came to love like a father. A critical difference exists, however. The power differential between the two is absolute, and the fear of

harming the other only goes in one direction. Masters typically did not have the same kind of fear. Moreover, the fear of the slave operated on the primary, existential level of life and death. They did not fear rejection from the master's house, unless, of course, that fear sprang from a desire to avoid being sold to a more crueler master. Most often, the slave feared the life threatening violence he could receive. Equiano narrates a paradigmatic example,

While I was in this plantation the gentleman, to whom I suppose the estate belonged, being unwell, I was one day sent for to his dwelling house to fan him; when I came into the room where he was I was very much affrighted at some things I saw, and the more so as I had seen a black woman slave as I came through the house, who was cooking the dinner, and the poor creature was cruelly loaded with various kinds of iron machines; she had one particularly on her head, which locked her mouth so fast that she could scarcely speak; and could not eat nor drink. I was much astonished and shocked at this contrivance, which I afterwards learned was called the iron muzzle. Soon after I had a fan put into my hand, to fan the gentleman while he slept; and so I did indeed with great fear.¹⁴

This fear is not the healthy, life-giving fear born out of filial love. Productive human fear has transformed into a vicious energy that constrains the human psyche and body in destructive ways. It is fear born from existential crisis, the terror that life itself might come to an end at the hands of the master who retained absolute control over the slave's existence.

Exchanging filial fear for existential fear was only a half measure. It might have induced conformity and obedience, but the slave who worked for the master out of existential fear did so halfheartedly, always looking for ways to direct her energies elsewhere, even trying to use both her emotional and intellectual energies in service of thwarting the master's purpose with verbal resistance in the form of sass. Sass was an inventive and oppositional use of energy frequently that slave women often employed. In the west, "sass traditionally signified impertinence, disrespectful speech, or talking back . . . [But] in the West African Yoruba religion (Ifa'), sass

¹⁴ Ibid., 31.

functioned primarily as a verb, an expression of wit, or a verbal assault” that exemplified “the art of misdirection.”¹⁵ Misdirecting what? The slave’s energies and the energies of the master, as Shawn Copeland explains, “Sass is the use of mother wit and verbal dexterity to resist insult or assault. It denotes impudent, uppity speech; sharp, cutting back talk-sharp, cutting talk thrown at the back . . . Enslaved black women took up verbal warfare in order to regain and secure self-esteem, to gain psychological distance, to tell the truth, and, sometimes, to protect against sexual assault.”¹⁶

The massive amounts of work needed to form our present world and its energy distribution demanded that Man transform African psychic energies (and the energies of all the world’s peoples) into something more efficient than existential fear, which only produced halfhearted submission, sassy resistance, and always left open the possibility of violent revolution. How much better would it be for the African (an everyone else) to engage joyfully in the colonial project? I have not yet fleshed out a complete theory of how this transformation was enacted, but here is my hypothesis, a preliminary one that needs more research and evidence.

To draw African’s into the Western way of life, Europeans turned to material goods and their capacity to work on the human appetite. They appealed to the goods of the body, and Equiano suspected this. He wondered whether the desire for material wealth was the motive driving the Africans who periodically invaded his people. He recounts,

From what I can recollect of these battles, they appear to have been eruptions of one little state or district on the other, to obtain prisoners or booty. Perhaps they were incited to this by those traders who brought European goods I mentioned amongst us . . . When a trader wants slaves, he applies to a chief for them, and

¹⁵ Antonio T. Bly, "Pretty, Sassy, Cool: Slave Resistance, Agency, and Culture in Eighteenth-Century New England," *The New England Quarterly* 89, no. 3 (2016): 269-70..

¹⁶ M. Shawn Copeland, "A Thinking Margin: The Womanist Movement as Critical Cognitive Praxis," in *Deeper Shades of Purple : Womanism in Religion and Society*, ed. Stacey M. Floyd-Thomas (New York: New York University Press, 2006), 233.

tempts him with his wares. It is not extraordinary, if on this occasion he yields to the temptation with as little firmness, and accepts the price of his fellow creatures liberty with as little reluctance as the enlightened merchant. Accordingly he falls on his neighbors, and a desperate battle ensues. If he prevails and takes prisoners, he gratifies his avarice by selling them.

European traders routinely enlisted tribal leaders in the work of slave capture by appealing to their bodily desire for material goods like firearms and liquor, and when this desire was overwhelming, the tribal leader willingly handed his neighbors over to slavery. How was this desire created? Willie Jennings, citing Joseph Miller summarizes the four main techniques.

First, they flooded "traditional domestic circuits of exchange" with new, previously unavailable goods like guns and weapons. Essentially, they increased the number of opportunities for Africans to bond with their goods. Second, they attributed "basic value to useless tokens of exchange rather than to people."¹⁷ To say that they "attributed value" is to say that they changed the idea of what is good, valuable, useful, or worth having, and they changed the reason for why it was useful. This point should be clarified. Europeans changed the African understanding of *what* was good and *why* it was good. Miller explains, "Before the advent of slaving and commercialism, goods were not generally viewed [by Africans] as made for exchange. The purpose of production was for use within a community, with the ordinary distribution of products handled under the rubrics of inheritance, redistribution, or sharing Although farmers might plant extra manioc, which kept well in the ground, for future use in the event of drought, no one stocked surpluses with much thought to the value of unused portions of it if sold to strangers."¹⁸

¹⁷ Jennings, 173.

¹⁸ Joseph Calder Miller, *Way of Death : Merchant Capitalism and the Angolan Slave Trade, 1730-1830* (Madison, Wis.: University of Wisconsin Press, 1988), 49.

Third, they created new relationships that had a very specific bonding agent: the material goods that Westerners were importing. Jennings points out that traders encouraged “unrelated parties with goods to exchange . . . to create relationships of alliance, patronage, and tribute.”¹⁹ What bound those unrelated parties together? *Unrelated parties* are bound by *goods to exchange*. Speaking more precisely, the individuals are bound into relationship by their mutual desire for a material things. They weren’t bound to each other because they were both human beings capable of feelings and thinking the world deeply. They weren’t attached to each other by virtue of their capacity to recognize in each other joy and suffering and then work to maximize the joy and minimize the suffering of the other. Even more importantly, they weren’t bound by the fact that they lived life together in the same place, faced the same daily joys and sufferings, and shared the same hopes and fears. Their buying and selling didn’t establish any kind of lasting emotional or intellectual connection. Instead, they were bound (weakly) into relationship by “market opportunity,” or their mutual desire for material things. Fundamentally, Europeans increased desire for the material goods *they* produced by *reducing the number of desirable, good objects*. The point of life, for European traders, wasn’t relationship with other human beings and the natural world. Those goods became secondary. The point of life, for the trader, was buying and selling things. But we should be more precise about the underlying logic. The end goal of selling things, of “giving away” things, was always acquisition because things weren’t sold without a profit. The whole logic always terminates in acquisition, and for very good reason, which we will discuss later.

Finally, they ensured that the desire for a thing was never disturbed by discomfort over where the thing came from or how it was produced. They did this by rupturing the relationship

¹⁹ Jennings, 173.

between production and acquisition. To say it a different way, they established a peculiar kind of bonding site; they created a very specific place for buying and selling goods. Under traditional African exchange practices, people usually bought and sold goods inside their community with people they knew. Sometimes, as Equiano points out, an outside trader would visit the market with unusual goods, but that was an exception to the rule.²⁰ Goods were exchanged inside a community of people who knew both where the good came from and what effect it would have on those who purchased it. If they didn't know where the good came from, they were careful with it. As Equiano explained, the foreign African traders always carried slaves, but the Eboa people always demanded "the strictest account . . . of their manner of procuring them."²¹ European exchange practices, on the other hand, eradicated the contextual coherence between creation-creator, exchange and consumption-consumer by relying heavily on "trade centers for 'open exchange of goods between autonomous individual.'" Because the conditions of production were detached from the exchange, there was never any possibility for those conditions to disturb the ethical sensibilities of buyers. This is one of the underlying principles behind the entire capitalist enterprise.

All of these economic practices ruptured old ways of feeling and thinking, and Jennings quote of Joseph Miller vividly captures the disruption,

The sheer circulation of import of any sort nurtured social and political stratification in Africa. Goods from the Atlantic accelerated the rates at which the powerful dislocated the weak and at which people from all sorts were uprooted from their home communities and moved to those of new lords or masters, from villages to king's courts, from old patrons to new patrons, from lineage leaders to merchants . . . [The] increased velocity with which slaves circulated as the flows of material goods intensified meant that slave dependents moved more frequently

²⁰ Equiano, 7.

²¹ Ibid.

and spent greater portions of their lives beginning over and over again as helpless, culturally disabled aliens in a succession of new communities.²²

Slave Ship Social Ecology as Rupturing Technology

Those economic practices were intended to inspire African greed and make them willing participants in the capture and enslavement of African people. There was still the issue of how to transform the emotions and ideas of the slave, and the social ecologies of slave ships were ideal sites for this transformation. When we think of the slave ship, we tend to think only of the physical work that it did on slave bodies. The word conjures images black bodies, whipped and bleeding, crammed into grotesquely small spaces, shackled tightly with iron and wood. That kind of physical work is easy to conceptualize. Because it is, well, physical; but the psychological work they did was much deeper and more lasting. If the slave ship had the capacity to carry black bodies from one continent to another, and in that process, reconfigure the natural and human geography of the globe, then it also had the capacity to transmogrify the complex geography of a slave's internal being. In executing this work, the ships ecology followed the same process of rupture, individuation, re-bonding, and shedding excess energy.

We see the rupture and re-bonding process at work the moment that Equiano encountered his first slave ship. His narration of his first encounter with these colonial workhorses of the sea, gives the readers a sense of the immense psychological force these ships exerted on their occupants,

The first object which saluted my eyes when I arrived on the coast was the sea, and a slave ship, which was then riding at anchor, and waiting for its cargo. These filled me with astonishment, which was soon converted into terror when I was carried on board. I was immediately handled and tossed up to see if I were sound by some of the crew; and I was now persuaded that I had gotten into a world of bad spirits, and that they were going to kill me. . . . I asked how the vessel could go? they told me they could not tell; but that there were cloths put upon the masts by the help of the ropes I saw, and then the vessel went on; and the white men had

²² Quoted in Jennings, 172.

some spell or magic they put in the water when they liked in order to stop the vessel. I was exceedingly amazed at this account, and really thought they were spirits. . . . While we stayed on the coast I was mostly on deck; and one day, to my great astonishment, I saw one of these vessels coming in with the sails up. As soon as the whites saw it, they gave a great shout, at which we were amazed; and the more so as the vessel appeared larger by approaching nearer.²³

The physical size of the ship thrusts upon him the measure of European dominion over the oceans dramatic forces; they are like god's, but, more significantly, we have to notice that the ship's physical dimensions aren't the primary locus of emotional force, it's the social ecosystem that the ship cultivated. Willie Jennings interprets this event and the magnificent capacity of slave ships to reconfigure the geographies of the slave identity,

If the world was re-created [by European control of the globe], then the sign of that recreation was the slave ship. Out of the vastness of the ocean, where water and wave superintend sight and sound, the slave ship announced the recreation of the world beyond the eyes and ears of much of the world. The life of Olaudah Equiano shows this. The slave ship floats on the sea, suspended between worlds, announcing the power to displace and translate the young Equiano The ship replaced the land by reformulating ecologies of identity around bodies as it were, floating in space²⁴

Individuation, rupture, is the critical aspect of this process. This individual is detached from the old bonds of meaning and identity. Equiano was extracted from the land and the people that stabilized his emotional energies and held him in a grounded state, and he is being bound to a new set of relationships.

Over time, the ship rearranged Equiano's internal being by rupturing his emotional and intellectual bonds to more stable objects: land, family, and community. At the site where love for mother, sister, and father once energized him, the practical desire to purchase his freedom generated greed and lust for economic capital. In fact, before enslavement, he has a capacity to

²³ Equiano, 25, 27.

²⁴ Jennings, 175.

love people directly, without an intermediary. His affection and care for mother, sister, and father are all direct. He cares for them simply because he is with them and can be with them. He does not have to profit from their presence. Moreover, these are relatively stable bonds that can often endure for decades. However, that kind of love does not and cannot flourish inside Western capitalist logic and practice, especially for a slave who had been ripped and would continually be ripped from the stable bonding sites of land and people.

And so the reader watches as his love and affection for land and people becomes secondary to, even parasitic on, the things that he can gain from them. His attachments to people become deeply tied to their ability to teach him valuable skills, protect him from danger, or give him some kind of monetary profit. Over time, Equiano slowly transforms, of necessity, from *homo amore* into *homo economicus*.

At the coordinate where the joy and happiness of marital celebrations and art resided, the ecology of the ship gradually instilled fear, despair, anger and a lust for violence which could only be satiated by rituals of destruction. The fear induced by violence on the slave ship and by innumerable battles with other ships opened up spaces that could only be filled by the adrenaline of potential death and conflict, "I was so far from being afraid of anything new which I saw, that, after I had been some time on this ship, I even began to long for a battle. My griefs too, which in young minds are not perpetual, were now wearing away; and I soon enjoyed myself pretty well, and felt tolerably easy in my present situation."²⁵

For all the efficiency of the slave ship, however, it could never do enough work to eradicate those bonds completely. Equiano's original community and its bonds had executed an

²⁵ Equiano, 37.

indelible work on his internal landscape, which he reveals throughout his entire narrative, but which shines particularly in one passage of brilliant condemnation,

O, ye nominal Christians! might not an African ask you, learned you this from your God, who says unto you, Do unto all men as you would men should do unto you? Is it not enough that we are torn from our country and friends to toil for your luxury and lust of gain? Must every tender feeling be likewise sacrificed to your avarice? Are the dearest friends and relations, now rendered more dear by their separation from their kindred, still to be parted from each other, and thus prevented from cheering the gloom of slavery with the small comfort of being together and mingling their sufferings and sorrows? Why are parents to lose their children, brothers their sisters, or husbands their wives? Surely this is a new refinement in cruelty, which, while it has no advantage to atone for it, thus aggravates distress, and adds fresh horrors even to the wretchedness of slavery.

Not only does this quote demonstrate the limited nature of Man's advantages, which were unable to sever the bonds between the African, his community, and his land of origin fully, it also reveals how Africans took those advantages and turned them around on their captors. Equiano took a foreign theology which was used to assimilate his energies into European systems of belief and practice, and he put it to work for his freedom. He drew on the ineradicable love for his kindred to retell their stories and in so doing worked on the emotions and ideas of Europeans. There was always a back and forth during the process of shaping our present moment, but the advantages were always in favor of those who held the largest energy reserves.

THE TECHNOLOGY THAT RUPTURED THE EMOTIONAL AND INTELLECTUAL BOND BETWEEN EUROPEANS AND THE WORLD

It is impossible to tell the story of how our present world and its suffering came into existence without telling about another essential rupture. It is impossible to answer Yali's question about how white people acquired so much cargo without accounting for the emotional and intellectual conditions that enabled Europeans to seize control of land around the globe and capture, enslave, rape, and murder, hundreds of millions of human beings in the process. Diamond mistakenly believes that "differences in people" can't explain why Europeans acquired more of the world's

energy than anyone else. He is motivated by a good reason. He wants to avoid the false and arrogant claim that Europeans are intellectually superior to the other peoples of the world. However, his refusal to consider differences in people causes him to overlook the genuine intellectual and emotional differences that made this world possible.

I am not thinking about racial inferiority! I am thinking about the concrete, explicit differences in ethical systems that peoples around the world created. The radical difference between the ethics of Equiano and the Eboa is only one example. Looking back at the battle of Cajamarca, where Pizarro and his men slaughtered thousands of unarmed children, women, and men; thinking back over the millions Native American peoples that were exterminated; looking carefully at the tens of millions of Africans who were kidnapped, raped, enslaved, and murdered, we have to ask, what kind of rupture made that possible? The answer, the human mind, its valuable ability to divide up the world, to differentiate between good and bad and to explain that differentiation to others.

The Problem of European Ethics as a Bonding Force

The mental distinction between good and bad action, the ability to symbolize that distinction in written laws, and the acts of reifying those laws by practicing their truth posed a problem for Man in his attempts to subdue the earth. Certain behaviors that would be necessary to accomplish His goals of world domination were out of bounds; they were distinguished as bad, immoral, illegal.

One example, from Carl Schmitt's *Nomos of the Earth*. The 16th century was, as Schmitt notes, "deeply Christian," and as such it still held on to certain ethical norms informed by theological and legal principles. Two principals were axiomatic for one influential theologian of the time, Francisco de Vitoria. First, human beings deserve certain kinds of treatment by virtue of the creatures they are. For example, they cannot be deprived of their rights unjustly. Second,

human beings, no matter how “barbarous,” are still human beings and, therefore, they should not be treated in certain ways. The Aristotelian idea that some human beings were, because of their nature, destined to slavery, and the Hobbesian idea that some people are less than human (animals) were both, for Vitoria, “heathen” ideas.²⁶ This has a practical consequence, as Schmitt explains,

Vitoria obviously treated Christians and non-Christians as equals in legal terms, at least from the standpoint of international law. Neither the pope, who had only spiritual power, nor the emperor, who was by no means the ruler of the world, nor and Christian prince could do as he wished with non-Christian peoples and their lands.” As with the princes and peoples of Christian lands, barbarian princes in non-Christian lands also had authority (*jurisdictio*), and the native inhabitants also had ownership (*dominium*) of their soil. This view gained general acceptance among Spanish and non-Spanish authors alike in the 16th century. Consequently, a Spaniard professing Christianity had no direct right to appropriate the land of non-Christian princes and peoples. According to Vitoria, the right to appropriate land arose only indirectly, and then only by way of arguments favoring just war.²⁷

Vitoria’s logic, if enforced, limits the actions of European actors sailing around the globe.

I do not intend to present any kind of unified theory of Western ethics and what they allowed and disallowed. My only argument is this, some of Man’s moral and legal codes worked *against* his aspirations to remake the world by preventing free expression of certain passions that were necessary for acquiring the expansive tracts of land and the massive quantity of Africans that his vision required. Vitoria’s case is only an example. Essentially, Man regulated the types of energy he could express and the direction in which he could express them by constructing legal codes that were proper to “civilized societies.”

In order to expand his control over the globe, He would have to work around those ethical codes that prevented Him from acting on His desires. Europeans had to present the world

²⁶ Carl Schmitt and G. L. Ulmen, *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum* (New York: Telos Press, 2003), 104.

²⁷ *Ibid.*, 105.

to themselves in a way that sanctioned (in good “conscience”) the construction and utilization of the technologies that could advance them towards global domination. The question to ask, “How did they do that?”

The Mind and Its Ideas as a Rupturing Technology: Spatial, Cultural, and Racial Identity

He detached His lust, violence, and greed from the epistemological binding forces that subdued them by imagining and defining creation in an innovative way; He categorized existence by distinct spatial-temporal, cultural and racial identities. Regarding spatial-temporal identity, Man created a new cosmological vision that worked inside of and facilitated the pursuit of Bacon's universal dominating vision, which Schmitt called *global linear thinking*. Within this intellectual horizon, Man bifurcated the world into distinct spaces, and all of the new land discovered by exploring Europeans was named, *imagined* to be, “free space,” which meant *outside the bounds* of European legal traditions that governed the expression of emotional and intellectual energy.

These *lines*, called *amity lines*, marking “occupied” and “unoccupied” space ran “along the equator or the Tropic of Cancer in the South, along a degree of longitude drawn in the Atlantic Ocean, through the Canary Islands were the Azores in the West, or a combination of both.” The amity line determined where “Europe ended and the ‘New World’ began.”²⁸ These were not benign lines innocently marking European space from all other space. Rather, these lines coalesced with European international law, and all of the space existing on the other side of the European line became something more than “free space,” it became a space that was free from “European public law.”²⁹ As space detached from Europe and European law, it became a space where “the struggle for land appropriations knew no bounds. Beyond the line was an “overseas” zone in which, for want of any legal limits to war, only the law of the stronger applied

²⁸ Ibid., 93.

²⁹ Ibid.

. . . [which] meant that the line set aside an area where force could be used freely and ruthlessly."³⁰ Through global linear thinking and by creating a space beyond His law, Man created a dystopian sphere where he could savagely express his lust, violence, and greed and still keep his moral integrity intact, if only in His mind.

Creating space within which to express his most destructive passion wasn't enough, though. Cleaving *global space* into distinct regions was only part of the process. Man also needed to justify aiming those passions towards a particular object, and again He relied on his mental capacity to divide, only this time the "Other" was a human other, not a geographical other. Over the years this took multiple forms, but the modern instantiation of this justification for subjugation process pivoted on the "foundational premise of [human] nonhomogeneity" that was "determined by an ostensibly divinely created difference of substance between rational human beings and irrational animals . . . between different populations, their religions, cultures, forms of life; in other words, their modes of being human."

In relationship to the native populations of the Americas, this rupturing and non-homogenizing of the global human body assumed the perfect form in Juan Ginés De Sepulveda who sought to justify war against native peoples. In a letter to the Count of Tendilla and Marquis of Mondeja, Sepulveda compared the European "gifts of prudence, talent, magnanimity, temperance, humanity, and religion" to the "half-men (homunculi)" or native peoples. In them, he argued,

You will barely find the vestiges of humanity, who not only do not possess any learning at all, but are not even literate or in possession of any monument to their history except for some obscure and vague reminiscences of several things put down in various paintings; nor do they have written laws, but barbarian institutions and customs. Well, then, if we are dealing with virtue, what

³⁰ Ibid., 93-94.

temperance or mercy can you expect from men who are committed to all types of intemperance and base frivolity, and eat human flesh?³¹

Notice how Sepulveda marks humanness. He uses virtue language: prudence, magnanimity (the golden mean between pride and self-debasement), and temperance. It is important to make a clear note of this language, because, in my final argument, where I explore the relationship between this kind of identity performance and sin, I turn Sepulveda's classification system around on him. I do not want to contest his definition of humanness. In fact, I want to affirm it. Moreover, to that end, I allow former slaves to diagnose the inhumanity, the "half-man" nature of Man. In the final analysis, Sepulveda doesn't fail because he defines humanness incorrectly; he fails because he, and Man in general, failed to perform genuine humanity. In the final chapter, I allow Olaudah Equiano, Fredrick Douglass, Harriet Jacobs, Solomon Northop, and other former slaves, to put Sepulveda on trial according to his own standard of humanness. These slaves turn the argument around, though. They present, with extraordinary prudence, talent, and temperance, all the evidence necessary to prove that Sepulveda and modern-colonial Man are the "half-men," precisely because they lack prudence, magnanimity, temperance, humanity, and, importantly, religion.

Sepulveda only reveals the way Man separated native people from the human body. Man performed an almost identical cleavage in relationship to the African, except skin color took the place of rationality and the virtues—although, in Man's mind, he could not separate the two; skin color indicated intellectual and moral quality and vice versa. Emmanuel Chuckwudi Eze explains how Immanuel Kant typifies this taxonomic splitting,

Kant's hierarchical chart of the superior to inferior hues of the skin is as follows:

³¹ Juan Ginés De Sepulveda, "Democrates Alter, or, on the Just Causes for War against the Indians," in *Introduction to Contemporary Civilization in the West* (New York: Columbia University Press, 1961).

STEM GENUS: WHITE BRUNETTE

First race, very blonde (Northern European), of damp cold.

Second race, copper-red (American), of dry cold.

Third race, Black, (Senegambia), of dry heat.

Fourth race, Olive-yellow (Indians), of dry heat.

The assumption behind this arrangement in this order is precisely the belief that the ideal skin color is the "white" (the white brunette) the others are superior or inferior as they approximate whiteness. Indeed, all other skin colors are merely degenerative developments from the white original.³²

Kant even argued that “the Negroes were born white, apart from their genitals and a ring around the navel, which are black. During the first month blackness spreads across the whole body from these parts.”³³

Significantly the effectiveness of these identity meanings that divide up existence is multiplied when they were combined with another bifurcation, the absolute distinction between people and things. In an investigation into the history of property concepts, Orlando Patterson explains the details of this vision and how it related to slaves. His analysis pierces the heart of the problem. The Roman’s fabricated the basic conceptual architecture of modern property notions through the “legal fiction of dominium or absolute ownership.” Dominium dramatically over-emphasized the categories of “persona (owner) and res (thing) and by rigidly distinguishing between corporeal and incorporeal things.”³⁴ These legal distinctions enabled them to 1) designate a property object as a corporeal thing, 2) shift the focus of the property definition from people to things, and 3) solidify the absolute right of an owner to benefit from the full economic value of the things they owned, but also “to use (usus) and enjoy its fruits (fructus), as well as “to use it up” (ab-usus) to alienate it,” and take “inner psychic power” over their property.³⁵ When

³² Emmanuel Chukwudi Eze, "The Color of Reason: The Idea of "Race" in Kant's Anthropology," *The Bucknell Review* 38, no. 2 (1995): 118.

³³ Ibid.

³⁴ Patterson, 31.

³⁵ Ibid.

racial identity was combined with this particular conceptualization of a rigidly dichotomized subject-object reality, Man had the advantage He needs over the slave because He had constructed the epistemological conditions necessary for owning, exclusively, the slave's bodily and psychic energy and for utilizing that slave exhaustively as an advantage that would carry Him to his desired ends.

The Name as a Rupturing Technology of the Mind

All of these identity differences hinge on observing, measuring, and calculating the nature of humanness, which are a set of actions that were at the heart of the modern project. The scientific work that Bacon set out for physical processes would be forced into the service of observing, measuring, and calculating humanness and culture. Bacon masterfully crafted the blueprint. He argued that everything "depends on keeping the eye steadily fixed upon the facts of nature and so as to receive their images simply as they are. For God forbid that we should give out a dream of our own imagination for a pattern of the world; rather may he graciously grant to us to write an apocalypse or true vision of the footsteps of the Creator imprinted on his creatures." It is a tragic and vicious irony. That is what man did precisely. He projected his dream out onto the world and forced the world to conform to that pattern by renaming reality.

Bacon is only one example. The early Enlightenment's obsession with naming extended well beyond him. Thomas Hobbes echoes Bacon's assessment of the significance and force that accompanies a name, and he portends the catastrophic consequences that follow upon mislabeling things, "Seeing then that Truth consisteth in the right ordering of names in our affirmations, a man that seeketh precise Truth, had need to remember what every name he uses stands for; and to place it accordingly; or els he will find himselfe entangled in words, like a bird

in lime-twiggs; the more he struggles, the more belimed.³⁶" The point is clear. The power to know a thing is the power to name a thing, and the power to name a thing is the power to control a thing. This impulse to label and direct creation pervaded every tier of European society, as Anne McClintock argues in *Imperial Leather*, "hosts of explorers, botanists, natural historians and geographers set out with the vocation of ordering the world's forms into a global science of the surface and an optics of truth. In this way, the Enlightenment project coincided with the imperial project."³⁷

Like Sepulveda's assessment of the human and virtues, Bacon and Hobbes are both on target. God forbid that we should give out a dream of our own imagination for pattern of the world! This is only true when the one imagining revels in fantasies of universal domination. The imagination can work in the other direction, moving humanity towards mutual flourishing. Naming too can work in the opposite direction. Hobbs is right! Getting the name right, understanding and labeling the thing that you are dealing with, essential. However, that is only one-third of the equation. The reality, the name, and the objective must coincide. In the creation of our modern-colonial world, on the other hand, the three are mismatched. *The hierarchically organized names that Man imposed on the world (inside-outside; rational-irrational; black-white) matched His telos, but neither His telos nor his names accurately lined up with the truth of existence.* Consequently, he had to resort to a particular kind of naming, ideology.

Chela Sandoval, drawing on Roland Barthes' theorizing of ideology, provides a helpful interpretation of how Western cultures have structured meaning ideologically. The basic procedure runs like this: a signifier (any shape capable of containing meaning) and a signified (any concept capable of filling a shape) link up to create a sign ("the associative total of the first

³⁶ Thomas Hobbes, *Leviathan*, (2012). 30.

³⁷ McClintock, 34.

two terms”). For example, in a non-ideological structure of meaning, a name like Olaudah (signifier), is cognitively and linguistically linked to concepts like “vicissitude or fortunate also, one favored, and having a loud voice and well spoken,” and together they create a sign. Or, the name Equiano links to the history of a family, and it communicates to the individual, the family and the community that history. When these two signs are joined and then linked with the man Olaudah to make Equiano, they signal something different, the favored son, brother, future Embrenche with a loud voice. Olaudah's body, personality, family, cultural history and all the myriad signifiers and signifieds in his reality weave together into a sign that accurately signals the man and the reality to which he is connected. Moreover, this link between the man and his historical, present, and future context creates a structure of meaning that enables people to recognize him to be the man that he is. Ideologizing, however, empties out this primary level of meaning (the link between the Equiano and his context) by constructing a secondary sign (or associative total) that robs the original sign of its original meaning. In other words, what we have here is a form of identity theft or fracture.

The advantageous nature of this process evidences itself when Equiano is renamed by his master, Captain Pascal—a remarkably ironic name, considering *our* subject. Captain Pascal quickly demonstrated his power over Equiano, an exercise of power that followed the Baconian and Hobbesian script to the letter. Equiano recollects,

While I was on board this ship, my captain and master named me Gustavus Vassa. I at that time began to understand him a little, and refused to be called so, and told him as well as I could that I would be called Jacob; but he said I should not, and still called me Gustavus; and when I refused to answer to my new name, which at first I did, it gained me many a cuff; so at length I submitted, and was obliged to bear the present name, by which I have been known ever since.³⁸

³⁸ Equiano, 26.

Clearly, the name is wrong. In fact, the name Gustavus Vassa has no content. It has no meanings, and it is, therefore, an empty sign waiting to be filled with whatever meaning his master deems appropriate. As an empty sign, however, it is misplaced. It does not reflect reality, at least not the reality of Olaudah Equiano, whose name "signifies vicissitude or fortunate also, one favored, and having a loud voice and well spoke." This new signifier, "Gustavus Vasa" doesn't signify the complex history and meaning of that one who came from the province of Eboa in the kingdom of Abyssinia, the son of an Embrenche who is destined to become an Embrenche and the brother to a sister whom he loved with an ineffable passion. Surely Hobbes would frown and correct Pascal's mistake. "Gustavus Vassa" doesn't touch the precise truth. In fact, that name doesn't represent the truth at all.

This is the final, most inhuman and deadly vivisection. One part of the globe was spatially separated from another, one part of the human body was detached from the whole, subject and object were divided, and, in the final analysis, human persons like Olaudah Equiano were ripped from all of the emotional, intellectual, and physical relationships that gave meaning to their existence.

Ultimately, renaming Olaudah Equiano with the empty sign, "Gustava Vassa," is a trope for the larger process of renaming every external and internal dimension of creation, and racial identity meanings, along with spatial identity sit at the center of the whole process. Bacon's vision was, from top to bottom a totalizing one, and in his mind eye, the vision came directly from God. For Bacon, renaming creation was Man's reclamation of the power God had originally given to Him in the garden of Eden. In a narration of the creation event that harkens back to Pico della Mirandola, Bacon poeticizes,

After the creation was finished, it is set down unto us that man was placed in the garden to work therein; which work, so appointed to him, could be no other than

work of contemplation; that is, when the end of work is but for exercise and experiment, not for necessity; for there being then no reluctance of the creature, nor sweat of the brow, man's employment must of consequence have been matter of delight in the experiment, and not matter of labour for the use. Again, the first acts which man performed in Paradise consisted of the two summary parts of knowledge; the view of creatures, and the imposition of names.³⁹

Captain Pascal knew, like all those who participated in the slave trade, how to execute the rights and powers of the modern-colonial Man in pursuit of freedom and power. He named His reality, or rather, he shatters the fabric of the real and renamed reality the to suit his purposes, and when that reality resists, he imposed the new name by force. Man named His reality, or rather, he shattered the fabric of the real and renamed reality the to suit His purposes, and when that reality resisted, he imposed the new name with divinely justified force.

Now, whether the power to name and the name assigned are advantageous depends wholly on one's perspective and the object of one's desire. Obviously, Man's names disadvantaged the overwhelming majority of the world populations, but it also disadvantaged Man himself, robbing him of the opportunity to learn from different peoples and reducing his capacity to grow emotionally, spiritually, and intellectually. In the final analysis, I will argue that the habits of body and mind that took hold of Man as he divided up the world disadvantaged him in relationship to human virtue. The identity meanings that appeared to advantage Him so greatly, in fact, stunted his ability to cultivate forms of justice, generosity, and charity that are the mark of humanness. These identity advantages constantly worked against His *natural* impulse, His *Imago Dei* impulse, that inclines the human Creature towards healthy humility by tossing Him back and forth between the poles of self-deprecation and self-inflation.

³⁹ Bacon, Kindle Locations 1213-17.

PART II: ENERGY FLOW TECHNOLOGIES

CHAPTER 3: CREATING AND CONTROLLING PHYSICAL ENERGY FLOWS

From this immense reservoir we may draw the moving force necessary for our purposes. Nature, in providing us with combustibles on all sides, has given us the power to produce, at all times and in all places, heat and the impelling power which is the result of it.
--Sadi Carnot

In chapter 1, we established fire's important role in the slave trade, but it's importance to that practice pales in comparison to the role it played in the industrial practices that constituted the second phase of constructing our present. Fire was the animating force without which the Industrial revolution would not have happened. Prior to the Industrial Revolution, Man needed extensive amounts of human labor. In quantitative terms, human labor was His greatest need, along with the wind energy that propelled His ships, and the solar and soil energy that nourished his crops. As we have seen, he obtained both human and soil energy by carving up global geography and the collective human body.

THE CENTRAL PLACE OF HEAT IN WORLD-MAKING

With the mechanization of production during the Industrial Revolution, however, Man needed an additional energy form, heat, and as industrialization gathered momentum Man's need for heat energy multiplied exponentially. Before 19th Century, Man primarily needed human energy because advanced machine technology did not exist and working the land yielded the products that enabled Him to accumulate material wealth and physical dominance over His peers. With the Industrial Revolution, he needed something different; he needed something that could multiply his capacity to move, produce, and control the earth. Adrian Bejan explains how this developed and why,

The direction over time has been one way, toward more power for more individuals over larger territories, and more power for every individual. This meant greater fuel use globally, not less. When one source of power proved

insufficient, a new one was added, increasing power with each adaptation in a very clear direction over time: work animals to water wheels and engines, all in a growing river basin of power flow and use on the earth. Not in the opposite direction.¹

Heat energy made the Industrial Revolution possible because it yielded the volumes of energy necessary for Man's machines to move continuously and with greater speed than they could under the conditions of water or animal power

That heat contained so much potential energy wasn't a self-evident truth, and it wasn't until the 19th century that a group of brilliant engineers and physicists discovered the central importance of heat, not just in relationship to machines but also for the entire natural order. Few people did more to advance the useful qualities of heat than Sadi Carnot, who, in his 1824 *Reflections on the Motive Power of Heat*, clearly described the centrality of heat to Man's future,

Everyone knows that heat can produce motion. That it possesses vast motive-power no one can doubt, in these days when the steam-engine is everywhere so well known. To heat also are due the vast movements which take place on the earth. It causes the agitations of the atmosphere, the ascension of clouds, the fall of rain and of meteors, the currents of water which channel the surface of the globe, and of which man has thus far employed but a small portion. Even earthquakes and volcanic eruptions are the result of heat. From this immense reservoir we may draw the moving force necessary for our purposes. Nature, in providing us with combustibles on all sides, has given us the power to produce, at all times and in all places, heat and the impelling power which is the result of it. To develop this power, to appropriate it to our uses, is the object of heat-engines.²

He goes on to argue that these engines and the heat that drives them will produce a "great revolution in the civilized world." And even at the time of writing his treatise on heat, when the immense potential of heat was still largely unknown, Carnot argued that the safety and prosperity of the nation rested on it, because it powered the steam engine, and the steam engine "works our

¹ Bejan, 41.

² Carnot, 37-38.

mines, impels our ships, excavates our ports and our rivers, forges iron, fashions wood, grinds grains, spins and weaves our cloths, transports the heaviest burdens, etc.”³

Considering the central role heat and its governing principles played in forming our world, I decided to look even more closely into the nature of fire. I examined the principles that govern its behavior and the challenges those principles posed to Man’s vision of the world. I wondered whether or not that deep looking might reveal something about the social processes that shaped our world. In the end, I discovered remarkable parallels.

In this chapter, we will look closely and the intricate physical principles that govern heat transfers and the challenge they posed to Man’s energy needs, but before we get bogged down in those details, I want to give the reader a *very* brief summary of these principles’ significance for interpreting the social processes that determined our contemporary world.

AN OVERVIEW OF THE PHYSICAL-SOCIAL RELATIONSHIP

First, the laws of energy tell us that all *material things have a ground state, a state of equilibrium that is unique to that object*. If an object is elevated out of its ground state or equilibrium state, it will attempt to shed energy and return to equilibrium. This is the state of rest. You can easily visualize this by thinking about kinetic motion. If you add energy to a material object (like lifting a ball lifted above your head) that object, if allowed, will shed energy by moving to the ground. This is the same principle evident in thermal transfer, which we discussed in chapter one. If energy is added to atomic particles by heating them in some way (i.e. they are elevated out of their ground state), they spontaneously seek out their ground state or equilibrium state by shedding that excess energy in the form of heat and light.

³ Ibid., 38.

If we think about human emotion and intellect as analogues to physical energy, we could say that everyone has a ground state, a state of emotional and intellectual rest that they will always seek to establish, and this means that when they become overly energized (or under energized), when their energy level heightens or lowers, they will seek to equalize their energy level by doing something to absorb or shed energy. This is the basic principle behind both stimulants and depressants. People take stimulants because they feel as though they don't have enough energy, they need or want, more emotional and intellectual energy. They want/need to be able to get more done. They want/need to focus more intently, etc. . . .

Importantly!! An objects ground energy state, its equilibrium state is determined by two things. 1) the thing itself and 2) the larger system it exists in. A free floating carbon atom has

Second, and logically related to the first. Energy in a system spreads out naturally, spontaneously until it is equally defused within the system. This is obvious. A fire starts because a high amount of energy is introduced into a fuel system, and the energy spreads from that site throughout the system. Similarly, fires eventually extinguish because all the excess energy in the thermal system eventually, naturally and spontaneously, dissipates from the fire site and into the ambient. This is the same reason that ice melts and glasses of water eventually become room temperature. Heat from the surrounding room spontaneously travels into the ice and the glass until the energy in the glass system (its temperature) is equal to the energy in the room system (its temperature). A similar principle is evident in human systems. When some kind of energy is introduced into a system, like the desire for material goods that was injected into African societies, that energy will spread throughout the system in complex (not random) ways—an important note, unlike physical systems, this spread within a human system is not *fait accompli* because humans can regulate their emotions, which we will discuss fully in chapter 6.

Third, generally speaking, highly diffused energy is energy that cannot be used for mechanical work, and this is the kind of work that was necessary for Europeans to acquire so much cargo. The ocean is filled with immense amounts of energy, but that energy isn't useful because it is too spread out, too diffuse. Energy must be concentrated and then harnessed if it is going to be put to mechanical use. Analogously, we see this principle mirrored in the trajectory of societies during the history of the contemporary world. Human energy has been increasingly concentration into a smaller and smaller space (European and American space). Africans were taken from their lands and crammed into ships and then concentrated on a plantation. English workers were removed from the land and funneled into cities and factories. This energy concentration was the only way to produce the massive amounts of material goods we have.

Fourth, and most importantly, the first two principles are obviously in tension with third, and these three principles together constitute the conditions within which Man would have to execute his vision for global domination. Material energy and human energy has a natural tendency to be diffused and spread out. Man needed to elevate it, concentrate it, and direct it. In chapter four, we will look at how He did that. Presently, let's look a little more closely at the physical conditions.

THE PROBLEM OF ENERGY FLOW AND THERMAL DIFFERENCE

It is important to recognize that heat only flows under certain conditions. Most importantly, heat flow requires difference. This is a principal at the core of the second law of thermodynamics.

Richard Feynman summarized it like this, "One cannot devise a process whose only result is to convert heat to work at a single temperature." Every object possesses heat energy. However, *if two systems exist in thermal equilibrium (i.e. there is no temperature/energy difference between the two), heat will not flow out of the one and into another.* Even though both systems may contain an extraordinary amount of energy capable of being transformed into heat, that energy is

useless, in terms of work, unless a third, lower temperature system, exists that can receive that energy in the form of heat transfer.

Furthermore, once difference is established and heat flows, it only flows in one direction. Rudolf Clausius--building on the work of Sadi Carnot and others-- formalized the unidirectional nature of heat in the first half of the 19th century. In 1856, Clausius set out a programmatic formulation of thermodynamic's second law,

Heat can never pass from a colder to a warmer body without some other change, connected therewith, occurring at the same time. Everything we know concerning the interchange of heat between two bodies of different temperatures confirms this, for heat everywhere manifests a tendency to equalize existing differences of temperature, and therefore to pass in a contrary direction, i.e. from warmer to colder bodies.⁴

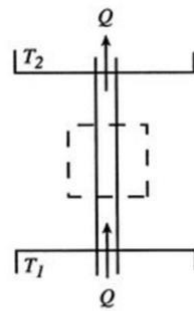


Figure 5.2: For $T_1 < T_2$, this is not possible (Clausius)

Illustration 5⁵

⁴ M.R. Clausius, "On a Modified Form of the Second Fundamental Theorem in the Mechanical Theory of Heat," *The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science* 12, no. 77 (August 1856): 86.

⁵ Diagram from Prof. Z. S. Spakovszky, "5.1 Concept and Statements of the Second Law (Why Do We Need a Second Law?)," in *Unified Thermodynamics and Propulsion* (Massachusetts Institute of Technology, 1999), doi: <http://web.mit.edu/16.unified/www/FALL/thermodynamics/notes/node140.html>.

We know this law by our common sense, and it is the reason we have refrigerators. Heat always flows in one direction and only in one direction, from hot to cold. If you set a glass of ice water out on the table before you go to bed at night, when you wake up in the morning the ice will have melted. The heat energy in the ice, and there is heat energy in ice, doesn't flow out into the room. Rather, heat flows in the other direction, into the ice, melting it. If we want to draw heat out of a system that is colder than another system, like drawing taking the heat out of the groceries in our refrigerator once they are already below room temperature, we must exert some energy to make that happen, which is what our refrigerator does. It literally pulls heat out of our groceries and pumps that heat into our kitchen.

We can summarize the second law more generally for our purposes; *useful energy, at least useful regarding human mechanisms, doesn't flow without difference and, even when difference exists, it only flows in one direction, from high to low, from sites with more energy to sites with less energy. It never flows the other way around. Consequently, doing work, displacing objects, advancing towards some objective requires difference! And, anything capable of creating that difference is a definite advantage for the one intent on utilizing heat flow as a motive force.* These statements are absolutely, in all instances, true. We do not know of a single event that has violated this law.

THE PROBLEM WITH ENTROPY: CONTROLLING ENERGY FLOW

This brings us to another operation that advantages perform. As I explained in the last chapter, some advantages overcome binding forces and convert energy from one form into another (chemical to heat). However, even after a network of relationships has been ruptured and its individual components and their energies have been freed up to do meaningful work, another natural tendency has to be overcome: entropy.

Beneficial work, as we stated earlier, moves and acting agent towards the realization of some desire, yet beneficial work, in any significant quantity, requires more than just energy. Work requires *intentionally channeled energy* that is channeled *efficiently*, which is what our technologies, or what Adrian Bejan calls “our contrivances,” do, “Like any other current in nature, heat [energy] flows from high to low. When we are smart enough to position ourselves and our contrivances between the high and the low, along the stream of heat, we enjoyed the . . . effects of heating, its ability to control the temperature of air and water. In order to provide heating . . . a flow path must be designed for the currents of heat, and the population intercepts these currents before they leak into the ambient.”⁶

Entropy Basics

Heat’s spontaneously seepage into the ambient is a consequence of the second law of thermodynamics, which is the law that explains entropy. There are dozens of correct formulations of the second law, but all of them contains the deeper entropic principle, the more comprehensive law, that governs the workings of the entire universe and continually resists Man’s pursuit of freedom, control, and power.

Sadi Carnot, one pioneer of thermodynamics, sensed that some such law existed in heat transfer and exchange processes, and he set out a challenge that illuminates both the difficulties this law posed, but also the ongoing European commitment to technological advancement, scientific exploration, and penetration into the deepest mysteries of nature,

Machines which do not receive their motion from heat, those which have for a motor the force of men or of animals, a waterfall, an air-current, etc., can be studied even to their smallest details by the mechanical theory. All cases are foreseen, all imaginable movements referred to these general principles, firmly established, and applicable under all circumstances. This is the character of a complete theory. A similar theory Alternatively, for heat-engines. We shall have it

⁶ Bejan, 31.

only when the laws of Physics shall be extended enough, generalized enough, to make known beforehand all the effects of heat acting in a determined manner on a body.⁷

To maximize His efficiency during energy transformation processes, Man needed to understand the general principles that determine the many transformations of heat during a cycle; in a similar way, which we will explore later, he needed to understand the general principles that governed the multiple transformations that the bodies of factory workers experienced during their day of labor in the field and factory.

Rudolf Clausius, in 1851, discovered this unifying principle of heat transformation, and he termed it entropy. In a lecture given to the Philosophical Society of Zurich, Clausius described, in non- mathematical terms, what he observed in his research and what he had in mind when he coined the term,

We might call S [the mathematical symbol for entropy] the transformation content of the body, just as we termed the magnitude U [energy] its thermal and ergonal content. But as I hold it to be better terms for important magnitudes from the ancient languages, so that they may be adopted unchanged in all modern languages, I propose to call the magnitude S the entropy of the body, from the Greek word τροπή, transformation. I have intentionally formed the word entropy so as to be as similar as possible to the word energy; for the two magnitudes to be denoted by these words are so nearly allied their physical meanings, that a certain similarity in designation appears to be desirable.⁸

What is this system property? Unequivocally, entropy is one of the most enigmatic and concepts I have ever tried to comprehend because it expresses one of the most counterintuitive laws of nature. I will endeavor to explain it concisely, limiting myself to only the most relevant information. However, the complexity of the concept makes it difficult to explain succinctly or in

⁷ Carnot, 44.

⁸ [http://www.eoht.info/page/Entropy+\(etymology\)](http://www.eoht.info/page/Entropy+(etymology)). It should not go overlooked that a physicist is fastening his physical observations to a Greek philosophical tradition or that he is speaking to a group of philosophers.

a linear progression. So, we will have to work our way, somewhat circuitously, into the heart of entropy.

Understanding entropy requires that we foreground, from the beginning, the intimate connection between energy and entropy. In the most general terms, *entropy transformations in a working substance accompany energy transformations in that same working substance and the surrounding environment*. To state it more precisely, thermodynamic entropy signifies a *quantity of energy change/transformation in a systems or group of systems*. Entropy *measures all of the energy changes, all of the energy redistributions, that transpire in a working substance during some dynamic process where energy changes forms*. That working substance can be anything, like a steam engine, which was Clausius' focus. However, the concept of entropy can also apply analogically, as I will soon suggest, to the physical and emotional energies of a slave or an English factory worker.⁹

We also need to foreground, from the beginning, that entropy changes and energy changes are both related to mechanical work. The connection between entropy, energy, and work is essential for our exploration. What is the relationship between entropy and work?

The Effect of Entropy: Lost Work

We can begin to answer that question by examining one authoritative definition of entropic change in a working substance (the second law of thermodynamics). The second law of

⁹This energy dispersion can be applied to a community, nation, or race of people. We have to be careful here, however. We can only employ the law of entropy analogically to human beings, at least in relationship to their emotions and social patterns. In relationship to their biological processes, however, human beings, like all material things, are subject to the physical laws of entropic change. Physical entropy and the natural tendency to entropic change results in human aging and death. The emotional and social changes happening in emotional, intellectual, and social creatures are not subject to the same law that determines the movements and transformations of non-living substances, like gasses. For this reason, we can only apply the principles of entropy analogically to those things and the processes that transform them.

thermodynamics states that heat energy has a "natural bias"¹⁰ against complete transformation into work, and this bias is captured succinctly by Lord Kelvin and Max Planck's research into heat: *No process can take heat from a high-temperature reservoir and convert **all** that heat into work. Unequivocally, some of that heat will inevitably escape from the working body into a cold reservoir, which is usually the surrounding environment, without doing any useful work.*

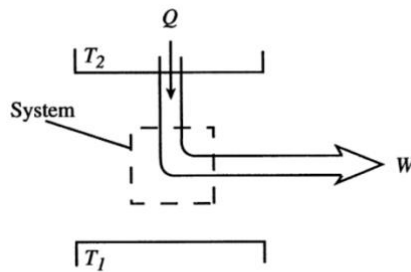


Figure 5.1: This is not possible (Kelvin-Planck)

Illustration 6 ¹¹

Some heat gets lost in the transformation because the universe's entropy must always increase-- or at least remain the same-- in every dynamic process of heat transfer. Consequently, no process that transforms heat energy into mechanical energy (work) is completely efficient because *heat's nature and the nature of the universe, in general, preclude total utilization.*

What happens to this lost heat and lost mechanical work? Because the first law of thermodynamics dictates that the energy of the universe remain constant:, it cannot be created or destroyed, that energy must go somewhere. Unfortunately for Man, it is "destroyed, (i.e.

¹⁰ D. S. L. Cardwell, *From Watt to Clausius; the Rise of Thermodynamics in the Early Industrial Age* (Ithaca, N.Y.,: Cornell University Press, 1971), 220.

¹¹ Diagram taken from <http://web.mit.edu/16.unified/www/FALL/thermodynamics/notes/node37.html>

dissipated), instantly, entirely, forever."¹² There is a direct correlation between this dissipated energy and entropy. As entropy increases, the amount of energy available for useful work decreases. Increased entropy means decreased work capacity. Adrian Bejan explains,

Energy flow into and out of a system along paths of mass flow, heat transfer, and work (e.g. shafts, piston rods). Energy is conserved, not destroyed: this is the statement made by the first law of thermodynamics. Exergy is an entirely different concept. It represents quantitatively the “useful energy,” or the ability to do or receive work—the work content—of the great variety of streams (mass, heat, work) that flow through the system. The first attribute of the property “exergy” is that it makes it possible to compare on a common basis different interactions (inputs, outputs, work, heat). Another benefit is that by accounting for all the exergy streams of the system it is possible to determine the extent to which the system destroys exergy. ***The destroyed exergy is proportional to the generated entropy. Exergy is always destroyed, partially or totally: this is the statement made by the second law of thermodynamics. The destroyed exergy, or the generated entropy is responsible for the less-than-theoretical thermodynamic efficiency of the system.***¹³

The entropy-work relationship that the Kelvin-Planck statement describes represents, in the broadest terms, one of the greatest challenges that faced Man as he developed technologies, spread his control over the globe, and drew the energies of the world to Himself. Namely, it imposed a precise and immutable restriction on *how* He transformed energy and the kinds of advantages He would have to devised to overcome this law of nature. At every turn, energy escaped his grasp in proportion to entropy increase, and he would have to invent entropy minimizing technologies that enabled him to extract more work from the energy he acquired and sought to utilize.

¹² Bejan, 42.

¹³ "Fundamentals of Exergy Analysis, Entropy Generation Minimization, and the Generation of Flow Architecture," *International Journal of Energy Research* 26, no. 7 (2002): 546.

In addition to describing entropy as the limit to the available work one can extract from a working substance, one can also describe it as the degrees of freedom or potential microstates available to a system. To explain this, let's start with a hypothetical, completely unnatural system that permits no transformation. The third law of thermodynamics describes such a system.

Richard Feynman explains,

For a long time it was believed that absolute entropy meant nothing—that *only differences* could be defined—but finally Nernst proposed what he called the heat theorem, which is also called the third law of thermodynamics. It is very simple. We will say what it is, but we will not explain why it is true. Nernst's postulate states simply that the entropy of any object at absolute zero is zero.¹⁴

What does this mean, though? Take, for example, 1kg of water at absolute zero. It has zero entropy, which means that the molecular system of water undergoes zero transformations. We can say this differently. Any system that has zero entropy and undergoes "zero transformations" is a system that has *0° of freedom for change*. Alternatively, it is a system that has one and only one possible microstate. Nothing in the system moves because all of the motional energy has evacuated the system, "The greater the molecular motion of a system [temperature], the greater the number of possible microstates and the higher the entropy. A perfectly ordered system with only a single microstate available to it would have an entropy of zero."¹⁵ As heat energy enters the system, the system's degrees of freedom, or microstates, increase.

¹⁴ Italics added. Richard Feynman, *The Feynman Lectures on Physics: The Laws of Thermodynamics*, (Pasadena, CA: California Institute of Technology, 2013). doi:http://www.feynmanlectures.caltech.edu/I_44.html.

¹⁵ Patricia Eldredge Bruce Averill, *General Chemistry: Principles, Patterns, and Applications*, (Saylor Foundation, 2011). 1649.

We need to conceptualize microstates or degrees of freedom in relationship to two aspects of a physical system: the *energy levels* and the *energy concentration* in the system. On the one hand, entropy measures a system's energy intensity. The higher the energy intensity of a system, the higher the entropy/ degrees of freedom, which means that at any given second, energy is spread throughout the system in increasingly unpredictable (unknowable) ways. An extended quote by Frank Lambert will be helpful here,

... a microstate for a system is all about time and the energy of the molecules in that system. "In a system its energy is constantly being redistributed among its particles. In liquids and gases, the particles themselves are constantly redistributing in location as well as changing in the quanta (the individual amount of energy that each molecule has) due to their incessantly colliding, bouncing off each other with (usually) a different amount of energy for each molecule after the collision. Each specific way, each arrangement of the energy of each molecule in the whole system at one instant is called a microstate."

One microstate then is something like a theoretical "absolutely instantaneous photo" of the location and momentum of each molecule and atom in the whole macrostate. (This is talking in 'classical mechanics' language where molecules are assumed to have location and momentum. In quantum mechanics the behavior of molecules is only described in terms of their energies on particular energy levels. That is a more modern view that we will use.) In the next instant the system immediately changes to another microstate. (A molecule moving at an average speed of around a thousand miles an hour collides with others about seven times in a billionth of a second. Considering a mole of molecules (6×10^{23}) traveling at a very large number of different speeds, the collisions occur — and thus changes in energy of trillions of molecules occurs — in far less than a trillionth of a second. That's why it is wise to talk in terms of "an instant"! To take a photo like that may seem impossible and it is.

In the next instant — and that really means in an extremely short time — at least a couple of moving molecules out of the 6×10^{23} will hit one another.. But if only one molecule moves a bit slower because it had hit another and made that other one move an exactly equal amount faster — then that would be a different microstate. (The total energy hasn't changed when molecular movement changes one microstate into another. Every microstate for a particular system has exactly the total energy of the macrostate because a microstate is just an instantaneous quantum energy-photo of the whole system.) That's why, in an instant for any particular macrostate, its motional energy has been rearranged as to what molecule has what amount of energy. In other words, the system — the macrostate — rapidly and successively changes to be in a gigantic number of

different microstates out of the “gazillions” of accessible microstates, (In solids, the location of the particles is almost the same from instant to instant, but not exactly, because the particles are vibrating a tiny amount from a fixed point at enormous speeds.)¹⁶

Regarding the energy intensity of a system, energy distributes itself one way and only one way in a system at absolute zero with zero entropy,

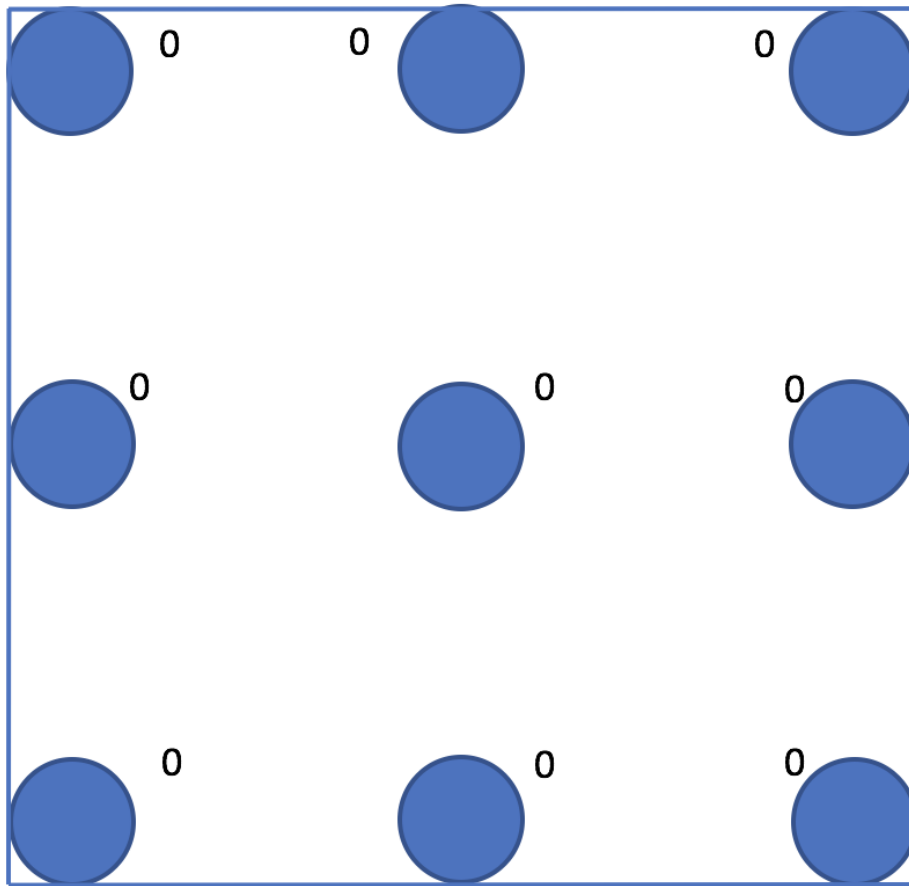


Illustration 7

Imagine that the image above represents a system of water molecules. At absolute zero, every particle in the system has exactly the same amount of energy and moves in exactly the same

¹⁶ Frank L. Lambert, "What Is a Microstate," <http://entropysite.oxy.edu/microstate/>.

direction. They all have zero kinetic energy and none of them move because there is zero energy capable of sustaining kinetic motion (energy = motion). Consequently, from moment to moment, the system does not change, and a snapshot of the system at 3 o'clock in the afternoon will look exactly the same as a snapshot of the system at midnight. Logically, this means that an observer can know and predict the state of the system at any given moment. He can have perfect knowledge of the system.

As energy pours into the system through heat transfer or any other means (i.e. mechanical work, electricity, etc. . .), the atomic bodies in the water system begin to translate, rotate, and vibrate at different speeds,

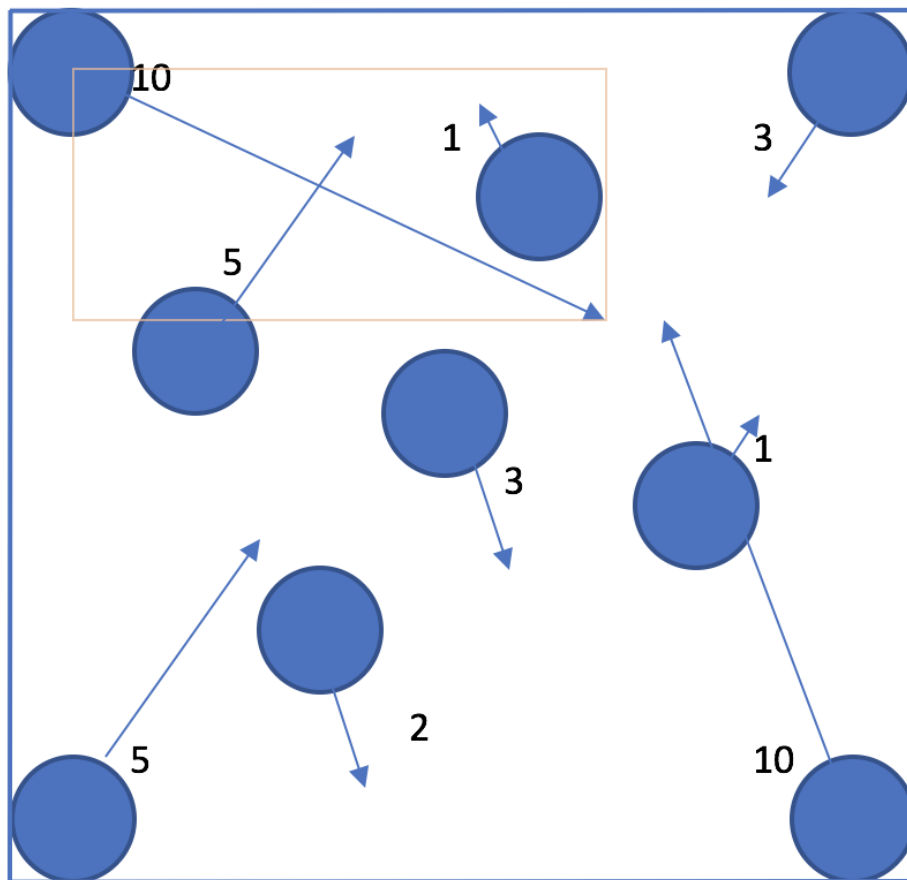


Illustration 8

At this moment, with 40 units of energy added to the system, rather than every particle having zero energy, they all have different energy quantities. The energy distributes unevenly and unpredictably. Additionally, the system's particles travel in different directions. This increased energy difference and motional direction difference mean that the bodies in the system undergo more transformation at each moment. Alternatively, regarding freedom, we can say that each particle and the system and the whole system have more degrees of freedom to change. This increasing freedom for transformation—which means increased entropy or increased number of microstates—continues steadily with and proportional to the energy and temperature increase. Logically, this means that an observer will have a harder time knowing and predicting the state of the system at any given moment.

While entropy measures the complex ways that energy intensity disperses in a physical system, it also measures the *spatial concentration of the same energy*. In a process where heat enters a system, not only does the energy level distribution change, the spatial allocation of that energy also changes. During these processes of heat transfer, systems reach critical moments of rapid entropic multiplication. Once the entropy of a system hits a certain level, the atomic bonds break apart and the substance undergoes a phase change, like ice turning into liquid water once enough heat has been added to it (273.2 Kelvin).

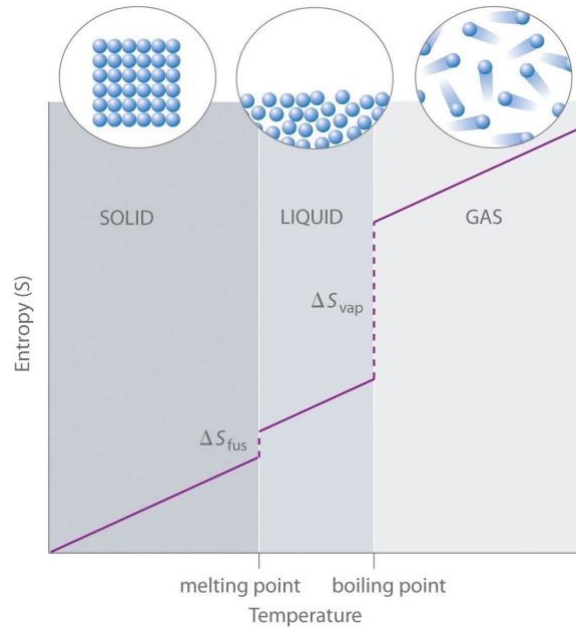


Illustration 9¹⁷

In the above diagram, S_{fus} represents the temperature at which entropy causes ice to melt into liquid water and S_{vap} represents the temperature at which entropy causes liquid water to evaporate into a gas. Notice how there is a radical entropy change as the substance transforms from solid to liquid, and then there is an even greater entropy change as the substance transforms from liquid into gas. This rapid increase makes sense because, up until the phase change, the differing molecular energy states largely determined the system's entropy, not their motion.

Under the conditions where the H_2O molecules exist in a solid, the total energy in the system sets limits on the spatial movement of each particle, and that energy is shared or dispersed evenly throughout the system— although not at every moment. Because the system's energy is relatively low at freezing temperatures, *molecular action in space is minuscule* because

¹⁷ Bruce Averill, 1653.

the energy necessary for that action isn't available. Therefore, the molecules just vibrate on a fixed point, and changes in the system (microstates available for spatial transformation) preclude movement in space. The molecules only differ from moment to moment according to their levels of energy (quantized energy), not their location. To state it another way, under the conditions of minimal energy, fewer spatial microstates (or degrees of freedom for transformation) are available to the bodies present in the system. Thus the spatial entropy is low.

Obviously, the situation changes dramatically once the system changes phase from solid to liquid and even more dramatically from liquid to gas. In the liquid state, the freedom for transformation is exponentially larger. To truly realize the vast possibilities inherent in such a system, consider what happens when a very, very small amount of water at 273 K (just above freezing) is heated by one degree, “There is an increase of $10^{10,000,000,000,000,000,000}$ ($10^{0.01N}$) *times* the number of microstates in the 273 K water—whose macrostate itself corresponds to an incomprehensible 10 to an exponent with 24 zeros ($10^{3.3N}$) of microstates.”¹⁸ The number of possible microstates is vastly larger than at absolute zero because not only can molecules differ according to the energy levels they occupy, but they can also differ in location, in the direction they are traveling, and in how fast they are traveling. The increased degrees of freedom for transformation boggle the mind, and even more so for vaporization where the molecules dissipate into the immense volume of the room.

Clausius called this spatial entropy increase “disgregation.” In 1862, three years before officially using the term “entropy,” he used the term “disgregation,” which contrasted, in thermodynamics, with “aggregation, [and refers] to entropy being a measure of the separation

¹⁸ Frank L. Lambert, “Entropy Is Simple, Qualitatively,” *Journal of Chemical Education* 79, no. 10 (2002): 1242.

distance of the particles of a system. Disgregation is the alternative definition of entropy . . . introduced to mean that entropy can be thought of as the ‘arrangement of the body’ or ordering of the constituent particles of the body.”¹⁹ Extraordinarily high levels of entropy completely disaggregate a body and its energies.

Increased unknowability is the logical consequence of a disgregating substance. Now, not only does an observer have to contend with increasingly complex energy level transformations; she also has to contend with increasingly complex spatial transformations.

To summarize the problems with entropy, there are four. First, increased entropy means that energy is spread out over a wider range of bodies (their energy states) and throughout a wider space. Second, increasing entropy means decreasing ability to use a substance for meaningful work. Third, the ability of an observer to accurately calculate and define a system's physical state decreases proportionally to entropy increases, i.e. increased energy states and increased physical space within which to express that energy. Fourth, entropy or the natural spreading of energy occurs *naturally and spontaneously*, "all energetic atoms and molecules will spread out their motional energy if they are given an opportunity to do so-in a larger volume, to other molecules not moving rapidly (i.e., at a lower temperature)."²⁰ Rudolf Clausius put it the way, "Everything we know concerning the interchange of heat between two bodies of different temperatures confirms this, for heat everywhere manifests a tendency to equalize existing differences of temperature, and therefore to pass in a contrary direction, i.e. from warmer to colder bodies.”²¹ Now we can look more closely at how these principles manifested themselves in human systems.

¹⁹ [http://www.eoht.info/page/Entropy+\(etymology\)](http://www.eoht.info/page/Entropy+(etymology))

²⁰ Frank Lambert, "Entropy Is Simple-If We Avoid the Briarpatches," <http://www.patarnott.com/phys625/pdf/Entropy.pdf>.

²¹ Clausius, 86.

CHAPTER 4: CREATING AND CONTROLLING EMOTIONAL AND INTELLECTUAL ENERGY FLOW

An important phenomenon occurred in the seventeenth and eighteenth centuries: the appearance—one should say the invention—of a new mechanism of power which had very specific procedures, completely new instruments, and very different equipment . . . This new mechanism of power applies primarily to bodies and what they do rather than to the land and what it produces. It was a mechanism of power that made it possible to extract time and labor, rather than commodities and wealth, from bodies. It was a type of power that was exercised through constant surveillance and not in discontinuous fashion through chronologically defined systems of taxation and obligation. It was a type of power that presupposed a closely meshed grid of material coercions rather than the physical existence of a sovereign, and it therefore defined a new economy of power based upon the principle that there had to be an increase both in the subjugated forces and in the force and efficacy of that which subjugated them.¹

—Michel Foucault

A society that freezes social hierarchy into place is a society in which equality and justice between humans are impossible to achieve. . . . Justice in a society that naturalizes hierarchy through domination is always constructed in a fashion that serves the needs of the dominating order.²

--Chela Sandoval

It isn't immediately obvious how the thermal principles from the previous chapter apply to the emotional and intellectual energies of human beings, but there are similar principles in play. Just as Man continually struggled to capture more quantities of heat energy released from His fuels by devising flow technologies that decreased friction and prevented heat from escaping the working system unused, in the 19th and 20th century, Man also always struggled to capture more quantities of the physical/kinetic energy of His factory workers. In attempting to extract more and more energy, he devised energy flow technologies that prevented energy from transforming unused. This was true of his slaves, as we saw in chapter two, and it was also true of the factory workers that became essential to His project in the 19th century.

In this chapter we will look carefully at how social entropy problems arose in factories and communities, and we will examine how Man solved them. We will look carefully at the

¹ Michel Foucault, *Society Must Be Defended: Lectures at the Collège De France, 1975-76*, ed. Alessandro Fontana Mauro Bertani, François Ewald, and David Macey (2003), 35-36.

² Chela Sandoval, *Methodology of the Oppressed*, Theory out of Bounds (Minneapolis, MN: University of Minnesota Press, 2000), 127,8.

practices He instituted to prevent the worker's energy from dissipating without being utilized for beneficial work. To accomplish this, He deployed a variety of technologies.

We will begin by looking at one essential technology in the form of economic practice: division of labor. Division of labor focused the worker's energy by reducing the scope of their activities, confining them to a narrow set of tasks that were carried out repetitively in one location. However, even though the worker has been confined to a narrow set of tasks in a single location, that doesn't mean that she will necessarily be productive. Divided labor mostly just solves the problem of the worker's body and where it goes. Her desire has to be converted. Unmotivated workers could still waste time and valuable energy in many different ways.

To solve this Man used disciplinary technology that took multiple forms. We will look at five forms it took: the factory, the prison, paid police, the normal-abnormal identity, and the virtuous Christian identity. I am making an important distinction here. In the following pages, we will look at different species that are in the same kind. To give you an analogy, we could examine many species of hammer, but each species is still part of the same kind. Sledge hammers, ball peen hammers, upholstery hammers, and bushammers are all different. And yet, they are all the same. They are all hammers. What makes them the same is that they operate in fundamentally the same way and accomplish the same thing; they transfer force from someone's arm, through a shaft and hammer head, and finally into a nail that holds two objects together.

The five species of disciplinary technology we will examine all have the same formal structure and they all accomplish the same effect. The effect is what you would expect, they guide energy (much like a hammer) into a particular location: useful work for Man. This guided energy, however, has an antecedent effect: fear of punishment and hope for reward. Disciplinary technologies operate at the deepest site of the human self. They all accomplish this in slightly

different ways, by the underlying technique is the same. They all generate fear or hope through observation, standards of assessment, examinations, and the promise of reward or punishment. Foucault calls these disciplinary technologies.

The first, second, and third technologies are alike in that they rely on a peculiar architectural form and they all have a central, physical site from which individuals are observed. The factory is the first one that we will look at. Goods were produced in a carefully devised architectural structure, one where overseers were able to continually observe and measure the worker's productivity without ever being seen (the panopticon). These overseers were imbued with the capacity to punish or reward workers based on their performance. The second and third disciplinary technologies (prisons and police) are actually similar to each other because a state official is the observer. The prison and paid police are, in their very essence, extensions of the panopticon factory form. The prison is essentially the same as the factory because its physical form *and* its internal practices of observation are the same. Paid police, on the other hand, don't operate inside of a singular architectural structure, like the overseer or the warden do. They wander in and out of the community's streets, walking in and out of businesses, and by doing this, the police turn the community itself into the site where subjects are continually observed, measured, and threatened, and this means that the community as a whole becomes the site for fear production. This fear was intended to guide the energy of citizens away from destructive energy expressions like theft, drunkenness, and fighting.

Finally, the fourth and fifth technologies (normal-abnormal identity and the virtuous Christian identity) are similar to each other and dissimilar from the others. They are dissimilar from the other disciplinary technologies because there is no centralized, physically recognizable authority that observes, examines, and rewards/punishes. Rather, the normal-abnormal identity

relies on the individual herself, to internalize the standards of the society and then observe, measure, and reward/punish herself according to that standard. The virtuous Christian identity does the same thing, but in this instance the individual internalizes the standards of God and then observes, measures, and rewards/punishes according to that eternal standard.

All five of these disciplinary technologies, combined with the division of labor serve the same essential purpose. They are energy guiding technologies intended to help Man amass more wealth.

THE PROBLEM WITH ENTROPY AND THE ENERGY OF ENGLISH WORKERS

England's transition from agrarian to market capitalism around the time of the Industrial Revolution required Man to acquire a new kind of human energy, a worker who could sit at a machine and keep the machine running or execute a simple, repetitive task. He needed a factory worker. But He needed more than just any factory worker; He needed a factory worker that carried out tasks efficiently and for extended periods of time. Under agrarian capitalist social relations, production and profit were dependent more on the *quantity of land and laborers* employed rather than the *quality of laborers*.³ The *quality of labor* has a very precise meaning that is directly connected to energy. High-quality labor meant energy efficient labor, i.e. labor whose energy went entirely into useful work without being wasted. Problematically, the laborer's energy, like heat energy, is highly entropic and it did not transform totally into the useful work that Man needed done, analogously to physical entropy.

Entropy Problem 1: Unstable Energy Fluctuation of Workers

To begin with, the physical energy levels of the worker did not remain constant; they fluctuated greatly from moment to moment and day-to-day, and it was difficult to know if the worker

³ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, (ibooks, 1776).

would show up and be able to work. We could say that the English worker's energy variations were highly entropic, displaying dramatic variation with many possible microstates, and it was hard for overseers to know who would show up and when.

This was true certainly on a physical level because workers were deeply malnourished, and they tried to stabilize their natural energy fluctuations by consuming the cheapest and most readily available form of energy, sugar. Elizabeth Abbott argues that the "badly balanced in sugar saturated meals [of the English worker] fueled not only the working classes but also the Industrial Revolution that their labor made possible."⁴ This problem was exacerbated by the fact that their access to energy, in general, food energy, fluctuated considerably. Sydney Mintz argues that sugar became popular during the early stages of the Industrial Revolution in England, precisely because the political, economic, and social conditions created unpredictable access to food and because English working conditions placed tremendous energy demands on workers,

Why did the English people become such enthusiastic sugar consumers? Not because of the innate primate liking for sweetness; not because our species is symbolically communicative and builds meaning into all it does, including eating; not because socially inferior groups imitate their superiors; not even because people in cold, wet climes supposedly like sugar more than other people. Certain homely facts seem more persuasive. The diet of the British worker was both calorically and nutritively inadequate and monotonous. Often working people could not get hot food, especially for their breakfasts and midday meals. *New schedules of work and rest, changing conditions of employment, the end of the dependent relationship of agricultural labor to Squire, the development of a putting-out system, then a factory system--these were among the contextual conditions for changes in food habits.*⁵

If this was true, physically, of English workers, it was also true mentally and emotionally.

The moods of English workers typically tended towards depression, but they had ways to pick

⁴ Elizabeth Abbott, *Sugar : A Bittersweet History* (Toronto: Penguin Canada, 2008), 67.

⁵ Sidney Wilfred Mintz, *Sweetness and Power : The Place of Sugar in Modern History* (New York: Penguin Books, 1986), 182-83.

themselves us, as P. Gaskell explained in his analysis of English working conditions, "[the laborer works] so uninterruptedly, that whether it is morning, or noon, or night, he leaves the mill or workshop, and devours his watery meal with feelings of such mental depression and bodily exhaustion that he eagerly swallows a stimulus in the shape of spirits or beer, buoyed by its temporary exciting influence for the want of proper food on the one hand, and of due relaxation on the other."⁶ Indeed, workers did whatever they could to stabilize their unpredictable, fluctuating moods. Sydney Mintz argued that sugar, like alcohol and tobacco, became a critical substance that elevated the worker's mood. It was "the general solace of all masses."⁷

There were other problematic energy transformations like anger, lust, and others which we will discuss in detail later, and all of these continuously posed challenges to Man who needed highly energetic and willing workers who efficiently directed their energy into His work. Intoxicated workers, depressed workers, angry workers, lustful workers were not reliable and efficient energy reservoirs that could keep the machines running.

Entropy Problem 2: Energy Escaping from the System Unused

Let me remind you of one important thermal principle. In any working thermal system, some heat energy will escape the system without ever being utilized for work. Some energy always escapes. You can never convert all of it into work. This was also true of human beings engaged in work, and agricultural work was the most inefficient.

First, there is a physical aspect. Valuable worker energy evaporated when she had to *move locations or changes tasks*. In *An Inquiry into the Nature and Causes of the Wealth of*

⁶ P. Gaskell, *The Manufacturing Population of England : Its Moral, Social, and Physical Conditions, and the Changes Which Have Arisen from the Use of Steam Machinery; with an Examination of Infant Labour* (London: Baldwin and Cradock).
doi:<https://archive.org/details/manufacturingpop00gaskuoft>.

⁷ Mintz, 64.

Nations, Adam Smith pointed out, "It is impossible to pass very quickly from one kind of work to another, that is carried on in a different place, and with quite different tools. A country weaver, who cultivates a small farm, must lose a good deal of time in passing from his loom to the field, and from the field to his loom."⁸ This is a simple physical principle. If the worker has to move locations, energy is lost because it is spent on locomotion.

Second, there is a mental aspect. Changing work requires the laborer to *disengage and reengage his mental energies*, and this always leads to lost productivity, because "man commonly saunters a little in turning his hand from one sort of employment to another. When he first begins the new work, he is seldom very keen and hearty; his mind, as they say, does not go to it, and for some time he rather trifles than applies to good purpose."⁹

Third, there is a mind-body aspect. The worker who is responsible for learning the manual technique for dozens of activities will execute all of them inefficiently. Smith points out that agricultural laborers were unskilled, inefficient, and slow because they had to engage in a variety of different tasks that all required different skills. Problematically, none of them could learn all of these skills and execute them with equal dexterity,

A common smith, who, though accustomed to handle the hammer, has never been used to make nails, if, upon some particular occasion, he is obliged to attempt it, will scarce, I am assured, be able to make above two or three hundred nails in a day, and those, too, very bad ones. A smith who has been accustomed to make nails, but whose sole or principal business has not been that of a nailer, can seldom, with his utmost diligence, make more than eight hundred or a thousand nails in a day.¹⁰

This represents is a high entropy working configuration with multiple microstates or degrees of freedom for the worker's energies and talents to dissipate, and the higher the entropy (or, the

⁸Smith, 14.

⁹Ibid.

¹⁰Ibid., 13.

greater the number of tasks among which the worker divides his attention), the lower his productivity. When the laborer's hands move clumsily due to lack of training, energy and productivity dissipate unused.

Lastly, there is the aspect of the whole person: body, emotion and mind. The greatest threat for energy waste posed by labor forms like agriculture was the fact that the laborer transforms into a certain *kind of person*. Under agricultural laborer conditions, the worker develops a terrible habit of "sauntering, and an indolent careless application,"¹¹ both of which are developed "naturally by every country workman who is obliged to change his work and his tools every half hour," a procedure that "renders him almost always slothful and lazy, and incapable of any vigorous application, even on the most pressing occasions."¹²

There is one final challenge I want to point out: energy lost due to disobedience. This isn't a problem of the body, or emotions, or mind, strictly speaking. This is a problem with the will. Four years after he published *Wealth of Nations*, Samuel Bentham, the brother of Jeremy Bentham, traveled to Russia to work as a naval engineer and was eventually hired by Prince Potemkin to build ships. Alessandro Stanziani points out the primary problem Bentham confronted "He found himself faced with a twofold problem involving labor that was both unskilled and undisciplined."¹³ To solve this problem Bentham had English machinery and workers imported, but the "English workers showed little respect for instructions or work schedules, and while their foremen complained about the lack of discipline, they too disobeyed Bentham's instructions."¹⁴ Not only does Bentham have to overcome challenges posed by

¹¹ Ibid.

¹² Ibid.; *ibid.*

¹³ Alessandro Stanziani, "The Traveling Panopticon: Labor Institutions and Labor Practices in Russia and Britain in the Eighteenth and Nineteenth Centuries," *Comparative Studies in Society and History* 51, no. 4 (2009): 719.

¹⁴ Ibid.

unskilled labor; he also had to contend with workers who had a different opinion about what constituted true and good.

How did Man solve these problems?

DIVISION OF LABOR AS AN ENERGY GUIDING TECHNOLOGY

One problem, as we already established, was the tendency for energy to be dissipated when agricultural workers moved from one location to another or from one task to another. This energy loss happened on four fronts. The simple movements in space dissipated energy. Also, Adam Smith was of the opinion that such movement naturally eroded the moral quality of the laborer, cultivating slothful habits. Moreover, switching from one task to another wasted energy because it always took the laborer a few minutes to refocus his mental energy on the new task, and also because a worker who had developed a moderate skill level in completing multiple tasks wasted energy due to a lack of dexterity. It was far better to cultivate expertise on one small task.

Industrialization provided the means to solve these problems because it allowed manufacturers to do something that was impossible under agricultural conditions: labor division. Adam Smith, in *An Inquiry into the Wealth of Nations*, provides an account of agriculture's limitations, manufacturing's significant advantages, and how divided labor makes the difference. He writes, "The division of labour . . . so far as it can be introduced, occasions, in every art, a proportionable increase of the productive powers of labour, [but] the nature of agriculture, indeed, does not admit of so many subdivisions of labour, nor of so complete a separation of one business from another, as manufacturers."¹⁵ Under industrial manufacturing conditions, the various tasks of laborers were divided so that one person could spend an entire day, even an entire lifetime, performing one simple operation in one physical location. Workers did not need

¹⁵ Smith.

to move from one station to another or one form of work to another. His or her mental and bodily energies could all be directed, in total, to one useful, repetitive task. This concentrated repetition allows the laborer to perfect his dexterity to carry out that one specialized task with maximum efficiency and productivity over the course of a lifetime. Smith observes, "the improvement of the dexterity of the workmen, necessarily increases the quantity of the work he can perform; and the division of labour, by reducing every man's business to some one simple operation, and by making this operation the sole employment of his life, necessarily increases very much the dexterity of the workman."¹⁶

THE FACTORY (ARCHITECTURAL FORM) AS ENERGY GUIDING TECHNOLOGY

Hierarchical observation, as you will see throughout this chapter, was an essential technological advancement that guided human energy and made our contemporary world possible. At this point, we will preliminarily examine the physical process of hierarchical examination, but we will return to this practice later in the chapter because its genuine force becomes truly evident when English workers internalizes the standards of the overseer.

Even though today, we generally associate hierarchal observation in panoptical form with Foucault and modern prisons, Alessandro Stanziani argues that, in actuality, Jeremy Bentham and his brother invented this architectural form to solve the labor problems I explained above.¹⁷ With Bentham's panopticon project, we begin to see not only the energy problems that generated these energy guiding technologies, but we also glimpse the methodical and calculating process through which they were devised. Bentham explains exactly how this technology operates,

It is obvious that . . . the more constantly the persons to be inspected are under the eyes of the persons who should inspect them, the more perfectly will the purpose of the establishment have been attained. Ideal perfection, if that were the object,

¹⁶ Ibid.

¹⁷ Stanziani, 740.

would require that each person should actually be in that predicament, during every instant of time. This being impossible, the next thing to be wished for is, that, at every instant, seeing reason to believe as much, and not being able to satisfy himself to the contrary, he should conceive himself to be so¹⁸.

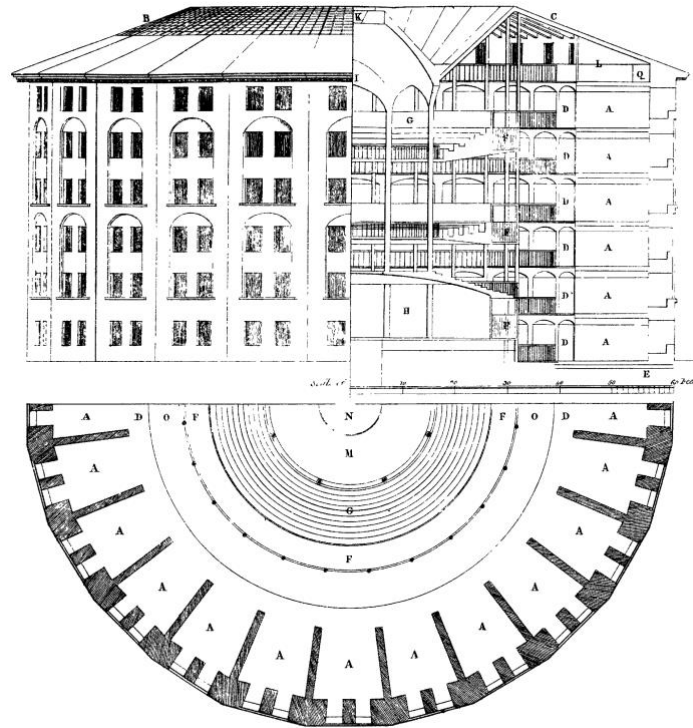


Illustration 10

The goal of the panopticon? To focus the physical and intellectual energy of the laborer by generating emotional energy, namely fear of being seen and punished. Ideally, the overseer would watch every worker at every minute. Problematically, that is costly because you don't want to have to pay (i.e. expend valuable energy) 100 overseers to oversee 100 workers. It is more efficient to design an architectural form that always leaves the worker uncertain about the location of the overseer. Is he watching? Isn't he? Because I don't know, I will assume he is and

¹⁸ Jeremy Bentham, *The Works of Jeremy Bentham*, Published under the Superintendence of His Executor, John Bowring, (Edinburgh William Tait, 1838-1843).
doi:<http://oll.libertyfund.org/titles/1925>.

stay focused and diligent. Bentham's reasons for devising this energy guiding architectural form were unequivocal, "Morals reformed—health preserved—industry invigorated—instruction diffused—public burthens lightened—Economy seated, as it were, upon a rock . . . all by a simple idea in Architecture!—This much I ventured to say on laying down the pen—and thus much I should perhaps have said on taking it up, if at that early period I had seen the whole of the way before me. A new mode of obtaining power of mind over mind, in a quantity hitherto without example. . ."¹⁹ Bentham's prose reveal more than just the essential nature of the technology and their purpose.

STATE FORCE, PRISONS, AND POLICE AS ENERGY GUIDING TECHNOLOGIES

Divided labor and hierarchical observation are, in many ways, limited to the factory or some other institutional setting. Unfortunately, at least for Man, the worker had to go home, and once outside the walls of the factory, his energy was less controllable, and those individuals whose energies ran counter to Man's purposes needed reforming, and transforming destructive energies required thoroughly researched and calculated methods for stamping out the vices that lead to criminality.

Prisons, many of which utilized the panopticon form, were essential technological innovations that reformed misspent human energy. James J. Willis explains the meticulous care invested in prison practices, "While prison management in the eighteenth century was relatively haphazard and prisons were frequently dilapidated, overcrowded and chaotic, inmates in nineteenth-century penitentiaries were increasingly subjected to a strictly enforced set of rules and regulations governing every aspect of their punishment, including their diet, cell size, clothing, and discipline." Both form and function served a precise end, re-forming the abnormal

¹⁹ Ibid.

individuals who refused to work so that they could contribute positively to the economic and moral order after their discharge from prison. An 1841 anonymous report on prisons explains the great social value of labor in prisons and points out the cause of criminal behavior. In addressing a debate that stretched across the Western European nations, the authors writes,

The felon, whatever his crime may be, ought not to be deprived of that life which society has spared ; but such would be the result of total solitude, if proper occupation did not intervene to alleviate its rigor. For this reason, labor should be introduced into prisons. This practice, far from being an aggravation of the convict's sufferings, would be to them a real benefitts, not only in the physical, but moral point of view; for it was, probably, idleness that led them into crime; yet now by labour they must contribute to the expenses of their prison, and may learn to live honestly and with credit, should they get back into the world.²⁰

Implicit in this prison report is the widespread assumption of the nineteenth century that human beings (especially the poor) were by nature undisciplined, prone to laziness, and therefore needed to be educated and govern. This was true for the prisoner and the common citizen.

Paid police were also essential, because one didn't have to be an absolute reprobate worthy of imprisonment to squander useful energy. There were dozens of daily opportunities for that to happen, if an individual had unlimited degrees of freedom. These possibilities drove an English national discourse focused on the value of paid police—which emerged in the last two decades of the eighteenth century, and the debate reveals the degree to which political and economic leaders feared energy loss due to an inherent human laziness and the serious threat that

²⁰ "Prison Discipline," *The Monthly Magazine* 6, no. 34 (1841): 393. It is important to note that profit motives played an unsurprisingly important role in these new methods of prison labor. Jeremy Bentham's utilitarian philosophy prompted him to argue for adequate prisoner nutrition. He "proposed first of all to rationalize [the prisoner's] diet: they should not become malnourished or else their productivity would diminish. Yet he thought mostly in terms of amounts, and was not embarrassed to suggest that prisoners be given spoiled food mixed with their fresh food (within reasonable limits, to avoid abrupt drops in labor productivity)" (Stanziani, 735).

such laziness posed to the nation's political and economic future. Dodsworth explains the growing consensus about police supervision in local communities, "A reorganized police and system of prevention were defined as humanitarian moves that would compensate institutionally for the natural weaknesses of mankind, counteracting the tendency towards temptation and corruption, perceived to be endemic in the body politic and part of the fallen human condition."²¹

The policeman, paid by the government—a novel innovation of this period—served as an extension of the governmental disciplinary power that could eliminate sites of moral corruption (entropy generation of energy dissipation) before citizens were led down the path of laziness and crime—the two always coincided. Because the policeman patrolled the community, moving from one place to another at unpredictable times, he served as something of a mobile panopticon. While the policeman wasn't always watching, citizens never knew when one might turn the corner and catch them in a criminal or immoral act: "Regularity and uniformity were central concepts here, for this mechanism of discipline would operate ceaselessly and not be reliant on the capacities and energy of any particular individual."²²

THE MIND AND ITS IDEAS AS ENERGY FLOW TECHNOLOGY: MORAL IDENTITY

It seems self-evident that human energy doesn't translate into mechanical work without difference. In the first place, there has to be an emotional difference, a difference between satisfaction and dissatisfaction, desire felt and desire satiated; desire moves us towards an end. A worker has to want to work for some reason, to accomplish some purpose. The worker has to experience some desire that motivates her energies into useful work. Typically, we think of that

²¹ James J. Willis, "Transportation Versus Imprisonment in Eighteenth- and Nineteenth-Century Britain: Penal Power, Liberty, and the State," *Law & Society Review* 39, no. 1 (2005): 177.

²² F. M. Dodsworth, "The Idea of Police in Eighteenth-Century England: Discipline, Reformation, Superintendence, C. 1780-1800," *Journal of the History of Ideas* 69, no. 4 (2008): 593.

difference as the difference between having a paycheck and food and not having those things. The worker goes in to the factory because she wants to get paid so that she can buy food. That pay and food satisfies a hunger.

But we have to think about difference on another level. I want to highlight a second difference that motivated workers to channel their energies into useful work: the normal-abnormal identity difference. This difference mobilized human energy by working on a more fundamental human energy difference: the desire for community felt and the desire for community satiated. Essentially, identity difference creates energy flow in a particular direction by attaching social acceptance and rejection to a specific set of moral qualities and social performances that beneficially align with Man's goals. Moreover—and we will examine this in the next section—the normal-abnormal identity difference creates the intellectual conditions that justified exercising state force on working class bodies, and this exerted force pushed in a direction that benefitted Man.

How is this difference created? Foucault calls these technologies that create difference and channel energy “disciplinary technologies.” He foregrounds three: hierarchical observation, normalizing judgment, and the examination.

Hierarchical Observation

Like the production of heat energy that requires heat to produce heat, the first technology, hierarchical observation, depends upon a pre-existing *social status difference* and *the material conditions* necessary to produce that difference. Creating thermal energy requires possession of the physical materials needed and the energy needed to induce combustion. Hierarchical observation, similarly, depends on controlling the material and social capital necessary for obtaining a spatial coordinate that enables an overseer to continually gaze upon the subjects (like prisoners, patients, and students) under his command/care/tutelage. Ideally, an architectural form

would exist that allowed for unrestricted visual oversight. Foucault describes the apparatus that Bentham envisioned, “The perfect disciplinary apparatus would make it possible for a single gaze to see everything constantly. A central point would be both the source of light illuminating everything and a locus of convergence for everything that must be known: a perfect eye that nothing would escape and a center toward which all gazes would be turned.” Implicit in this physical position is a subject who occupies an *elevated social position*, an overseer, and who is capable of exerting physical and psychic force on others through continual observation, measurement and calculation.

A genuine innovation of this surveillance, however, was the way in which the worker, during the process of being watched, internalized the overseer's gaze and converted his standards of judgment and categories for assessment into their own. They thus begin to supervise themselves and their peers, reinforcing and extending the force that the overseer is exerting on their bodies—and their minds. Under surveillance technologies, human beings become the target of a diffuse system of emotional and intellectual force that is exerted on their psyche by both the overseer, their peers, and themselves.

Normalizing Judgement

The second technology that guided human energy through the creation of difference was normalizing judgement, which works in concert with the first technology, and Foucault analyzed this instrument as it manifested itself in the orphanage of Chevalier Paulet. Within the orphanages political economy, Foucault observed a variety of behaviors that served as the minimal standard for “*normal behavior*” and the criterion for punishment: latenesses and absences; inattention and lack of zeal; impoliteness and disobedience; idiosyncratic chatter and insolence; irregular gestures and lack of cleanliness; impurity and indecency.

The punishment, however, is the crucial matter for our purposes here. The method of punishment, or what Foucault calls the "art of punishing," relied on five interconnected procedures. *First*, the entire social order is turned into a field for comparison, where every action, gesture, and words are meticulously scrutinized to determine whether or not the subject measures up to a certain set of standards. *Second*, individuals are differentiated from one another based on their relationship to the minimal standard that everyone must meet and the maximal standard to which all should strive. *Third*, this process "measures in quantitative terms and hierarchizes in terms of value and abilities, the level, the 'nature' of the individual."²³ *Fourth*, in giving higher value to certain behavior and lesser to others, this technology creates a high impulse for conformity. *Lastly*, "it traces the limit that will define difference in relation to all other differences, the external frontier of the abnormal."²⁴ The normalization technology simultaneously creates difference and works against difference by coercing people to conform to a set of acceptable behaviors by comparing them according to a socially constructed standard, differentiating them one from another, measuring their activity quantitatively and hierarchically, rewarding, and punishing them according to their abilities ("nature"), and setting those that don't conform on the outer-limit of the social sphere—abnormality.

Examination

The final technology that guided human energy through created difference was the examination, which combined surveillance and normalizing judgment in a "ceremony of power and the form of the experiment, the deployment of force and the establishment of truth,"²⁵ for the purpose of rendering examinees continuously controllable subjects and measurable objects. Its

²³ Michel Foucault, *Discipline and Punish : The Birth of the Prison*, 2nd Vintage Books ed. (New York: Vintage Books, 1995), 183.

²⁴ *Ibid.*

²⁵ *Ibid.*

effectiveness hinged on continuous visual access to the examinee (surveillance) so as to adequately determine whether or not she adhered to the set standards of achievement (normalizing judgment). Both surveillance and normalizing judgment reached their full power in the ritualized exam because its very ritualization imbued the process of scrutinizing and the standards of scrutiny with the mantle of truth. Because disciplinary technologies were, and still are, sanctioned as procedures rooted in and pursuant of "truth" (that which is by nature true, that which harmonizes with the way the actual truth of the world) their culturally constructed capacity to exert force and the interest served by that force was rendered invisible. While carrying out its task of producing docile and efficient subjects, the exam capitalized on its invisibility and rendered the individual into an object, it "situates [individuals] in a whole mass of documents that capture and fix them.

Examination procedures were accompanied at the same time by a system of extensive registration and documentary accumulation" that served two purposes. First, by *objectifying the individual through documentation*, wardens/doctors/teachers were able to keep the individual perennially surrounded by, covered up with a set of data concerned with his capabilities and abilities, and they could, therefore, track performance and devise interventions when people deviated from socially determined norms—in short, they could correct imperfections in the individual body for the good of the social body. Second, *writing* as a technical apparatus facilitated the description of the heretofore invisible social matrix, it made visible groups of people who were now describable and comparable. Writing and documentation actually reified difference, concretizing it, inscribing it on a page and in files. The copious pages of documents produced a "comparative system that made possible the measurements of overall phenomena, the description of groups, the characterization of collective facts, the valuations of the gaps between

individuals, their distribution in a given 'population.'" Lastly, the exam made every person an individual "case," one that was measurable according to his performance which in turn determined his particular status—either high or low—within a social system.

Collectively, surveillance, normalizing judgement, and the exam invented an object of knowledge ("the self" and its relation to others) that is accessible to the social body as a whole and to the individual subject; This self then becomes the object that is known, accepted, or rejected according to the standards set by the community. These disciplinary technologies that create a the self coordinate with the individual's subjective desire for community, inducing a high-low emotional difference. Counterintuitively, the normal subject position is the low-energy position, and the abnormal is the high-energy position; this is counterintuitive because we typically conceptualize the relationship conversely. Why? Because societies quantify the normative position as the higher/more valuable position. However, the identity differential, with normal on the high end, induces an inversely proportional difference in the individual subject. The high social status of normalcy correlates to a low desire subjective experience; the closer one gets to normativity, the more her desire to obtain normativity and its benefits decreases—at least to the extent that normativity results in community and intimacy.

The normative site minimizes desire, not eliminates desire, because the "normal" subject has already conformed to the stated norm, and through that conformity, her desire for communal intimacy is fulfilled, and this induces a partial, momentary emotional equilibrium. However, perfect desire fulfillment never obtains, within this human condition, because no one ever absolutely and permanently obtains the object or state of their desire. The normal-abnormal identity difference always exerts cognitive and emotional force on the subject, even after that have attained relative normativity, and this continuous pressure induces normative behavior. This

phenomenon, however, is only a continued expression of the the high-low difference created by the normal-abnormal differential. The passions of the "normal" person, like judgment, always flow towards satiety, which is conformity and, consequently, community. To come at this from the other direction, the normal-abnormal difference produces conformity to a set of standards beneficial to Man by capitalizing on the human fear of exclusion and a desire for inclusion, praise, and reward. Perceived difference and the consequences attached to that difference exerted force on human passions, mobilized them, and guided them towards Man's end.

This process is, *literally*, an energy conversion cycle. Granted, this energy conversion cycle does not have the discrete beginning and ending points of a combustion engine, but it is a cycle nonetheless. The subject internalizes standards of behavior: work hard, don't disobey, and so on. The subject also internalizes the consequences for transgressing those standards: exclusion, homelessness, and so on. The subject then acts accordingly. He channels his energy into factory work. He reprimands his colleagues for laziness. He buys the kinds of clothing and house that the standards demand. Identity difference initiates the cycle, like a match initiates combustion, by inducing an emotional difference in the subject: desire felt and desire fulfilled. That energy transforms into mechanical work of some sort. Because we are examining the desires for community and intimacy, we will assume that the mechanical motion produced relates to, in some way, achieving the normative status upon which acceptance depends. To the extent that the mechanical work results in transformations that satiate the desiring subject's passion, her emotional, motive force reduces; the high low differential dissipates, which requires the reestablishment of emotional difference (i.e. the incitation of desire). This is the brilliance and forcefulness of identity. It is something of a perpetually renewing energy source that judgments exert force and thereby induces behavior.

THE MINDS AND ITS IDEAS AS ENERGY FLOW TECHNOLOGY II: CHRISTIAN THEOLOGY AND IDENTITY

Division of labor, hierarchical observation, paid police, and the normal-abnormal difference built on observation, documentation, comparison, and examination weren't always effective! And at this site where Man's advantages narrowed, Christian theology served as forceful reinvigoration of these technologies. A novel 19th century Christian soteriological and anthropological vision, premillennial eschatology, surpassed all of the above technologies with its ability to efficiently minimize energy dispersal by weaving human virtue, Divine oversight, and final judgment together into a coherent vision that directed the energies of England's working poor into factory work.

Historical Background of Premillennial Eschatology

While none of the individual aspects of the premillennial eschatological framework were wholly new inventions, this theology synthesized Christian precepts into a configuration that beneficially served Man's purposes. It first received coherent articulation in the early nineteenth century by John Nelson Darby who was born into a landowning family in Westminster, London on November 18, 1800.²⁶ Darby had attended the Westminster School and then Trinity College where he studied Classics and graduated with high honors 1819. After studying law in Dublin, he appeared on the official list of barristers there but “probably practiced little, being under no financial necessity to do so.”²⁷ In 1825, Darby gave up his legal practice and was ordained a deacon in the Church of Ireland, but he only remained in the church for a short time before departing because of disagreements on a variety of theological issues. After his departure, he helped found the Plymouth Brethren. Unfortunately, the complex material relationship between

²⁶ Adrian Hastings, Alistair Mason, and Hugh S. Pyper, *The Oxford Companion to Christian Thought* (Oxford ; New York: Oxford University Press, 2000), 125-27.

²⁷ Peter L. Embley, "The Origins and Early Development of the Plymouth Brethren" (Dissertation, St. Paul's College, 1966), 49.

Darby, the Brethren, and evolving disciplinary technologies in the 18th and 19th centuries is too intricate to engage here, so we will have to focus our attention on the theoretical concepts of premillennial eschatology that gained a widespread audience and even birthed a lucrative industry of novels, films, and video games that thrive even today.²⁸

In a broader theological context, premillennial eschatology fits inside dispensational theology, the proponents of which read scripture literally and conceptualize human history a series of distinct dispensations, or what C.I. Scofield (an influential dispensationalist in the early 20th century) defines as “a period of time during which man is tested in respect of obedience to some specific revelation of the will of God.”²⁹ There are a variety of dispensational schema, ranging from a seven/eight schema to a minimalist schema of three dispensations, but most of them have a few common points of emphasis: biblical literalism, the importance of Biblical prophecy, a strict distinction between how God relates to the Jews and how God relates to the Church, and differing notions of a millennium—a thousand year reign of Jesus over the earth, followed by the ultimate defeat of Satan, and a final judgement of all humanity according to each also to say faith and works.

Similar to the normal-abnormal identity difference that Foucault illuminated, premillennial eschatology constructs a binary anthropological vision. However, this one does not pivot on the normal-abnormal distinction; rather it pivots on a virtuous-unvirtuous binary that

²⁸ The first piece of prophecy fiction was a pamphlet written and published sometime in the 1870's by an author who only attaches his or her initials to the work. In trying to situate the piece historically, Crawford Gribben suggests that this work was most likely one that emerged within the Brethren movement. Crawford. Gribben, "Rethinking the Rise of Prophecy Fiction: H.R.K.'S Life in the Future (?1879)," *Brethren Historical Review* 7 (2011): 68-80.

²⁹ Cited in Donald W. Musser and Joseph L. Price, *A New Handbook of Christian Theology* (Nashville: Abingdon Press, 1992), 125-26.

was unequivocally socio-politically situated and that encourages very specific habits of body and mind.

The habitus of hopeful submission. According to the premillennial eschatological vision, the contemporary political order was divinely ordained, and believers should submit to those in authority over them. Brethren scholar, Elizabeth Wilson explains that the Brethren's teachings about "submission to the powers that be, and separation from the world" were developed by the more educated and more affluent founders of the movement.³⁰ We see this clearly represented in Darby's stance, who encouraged his followers, "... submit to [political authority], since God orders them; and when they impose tax, pay; and make supplication to God for kings, and all in authority."³¹ Another author, G.F. Trench, writing around the end of the nineteenth century, takes Darby's position farther and used the following logic to encourage obedience:

(1) God alone is the author of power; (2) The powers are of God's appointment; (3) The object of government [like God] is the punishment of evil-doers, and the praise of them that do well; (4) The Christian is to acknowledge the institution as one provided 'for his good'; (5) The Christian is to be in subjection, and to make rulers the subject of his prayers and thanksgivings."³²

One may wonder how widespread such a view was in the 19th century, and Wilson hypothesizes that "it would probably be safe to say that practically all Brethren would agree with [Trench's] summary, then and now."³³

Brethren encouraged virtuous Christians to nurture hope, just not for any change in their present condition. Of all the different kinds of millennialists, the premillennialists constructed the most pessimistic assessment of the human condition. In his dissertation on the Plymouth

³⁰ Elisabeth Wilson, "Your Citizenship in Heaven: Brethren Attitudes to Authority and Government," *BAHN Review* (2003): 75.

³¹ Cited in *ibid.*, 83.

³² *Ibid.*, 82.

³³ *Ibid.*

Brethren, Peter Embley argued that the "premillennial" view taught that the world would not become better, but worse until at the darkest hour Christ would return in glory and judgment to vindicate His saints and to set up by direct divine intervention the millennial kingdom."³⁴ In the meantime, virtuous believers were supposed to hope for a better life in heaven, especially the poor, "The great majority of Christians still believed in a literal hell, and aimed to avoid its terrors and gain the joys of heaven. This preoccupation was probably most articulate among the laboring classes, where the hope of future happiness provided an emotional compensation for present hardships."³⁵

The habitus of industry. Hope for eternal reward should not translate into earthly sloth, as F.M. Dodsworth indicates, "Industry was linked to piety, duty and virtue and opposed to idleness, licentiousness, temptation and vice."³⁶ The good citizen, the normal citizen, the virtuous citizen is one who dutifully channels her energy into the work that her superiors (and, therefore, God) demanded of her. The virtuous citizen doesn't fritter his energy away in the bar or the brothel. Moreover, he does not demand too much compensation for his work! After all, his horizon of hope terminates in eternity.

The habitus of authority. There was another side to this conversation, another kind of Christian virtue that didn't require submission to temporal authorities. Trench identified a group of Christians who didn't have to submit and resign to temporal power. On the contrary, he made a case for a class of Christians who could demand submission and could actively shape the world. In fact, since some political and economic system had to govern a turbulent world, Christians were the best candidates. He wrote, "it is impossible . . . to avoid the conclusion that

³⁴ Embley, 59.

³⁵ Ibid., 33.

³⁶ Dodsworth, 598.

godly persons are best fitted for administration" and therefore "so long as in the calling of God, who appoints all to their places, he [a Christian] occupies socially a position of influence and authority in relation to others, the responsibility of rule connected therewith remain."³⁷ In a footnote, Wilson points out that Trench indicates the kinds of positions of administration that he has in mind: magistrates, court judges, jurymen, night watchmen, and policemen.³⁸ The theme running through these examples is unmistakable. Every position operates as a disciplinary, energy guiding technology that directed human energy according to the moral and ethical codes written by leaders who benefitted from those codes and the practices they produced.

These two virtuous subject positions serve as efficient technologies that work against energy dispersal in unhelpful directions, and they help convert a variety of human desires and physical energy into beneficial mechanical work. The virtuous worker identity impels the believer to focus his emotional and mental energy on the work assigned by authorities. The virtuous authority identity justifies force and frees the overseer to direct energy into forcing conformity.

As we mentioned earlier, though. Standards and oversight are only effective when an observer has untrammelled sight of the subject and can meticulously document her performance, and in this respect, premillennialist eschatology was unsurpassable. As we noted earlier, the concept of divine judgment took a central place in Darby's theology, and he found evidence in scripture for three moments of judgment, all of which depend upon a divine plateau that affords God complete and unrestricted visual access to every human thought, word, and deed. These three moments of judgement each undergird a working-class mind and body habituated to

³⁷ Cited in Wilson, 82.

³⁸ Ibid.

resignation, submission, and diligent work in service of a Divinely instituted political and economic system.

In the first judgment, God leverages His unobstructed visual access to human acts and thoughts to determine who will receive rewards based on the minimal normative standard, proper faith in Jesus Christ. God rewards true believers by rescuing them from the impending suffering of the post-rapture tribulation and the apocalyptic violence of the second judgment. Darby writes, “Before the final judgment . . . God's people are urgently called to come out of [the world], that they may not partake in her sins, and so in her plagues.” And he writes again in his Notes on the Apocalypse, “All that happens to us is foreknown and pre-arranged of God, in order that His child may stand in the midst of difficulties. All I have to do is to say - God is perfectly acquainted with the position I am in, and He knows the way He has prepared to extricate me out of difficulties if I remain faithful.”³⁹

This first judgement, which predicates reward (rapture) on faith in Jesus (i.e. the incarnation of the God who ordains the economic and political powers of the status quo), *undergirds the habituation of submission* by attaching reward (salvation) to faith in the God who sees everything the believer says and does, ordains the ruling powers of the world, and demands submission to them. To say, “you must believe in Jesus to receive salvation” is to say, “you must believe in the God that Jesus incarnates,” which is to also say, “you must believe in and submit to the social order that this God/Jesus ordains.” This first judgment also *buttresses a consciousness of resignation* by rehearsing a form of hope that is so fixated on what God will do in the future that it neglects what God might be doing in the present. Those who feel hopelessly

³⁹ John Nelson Darby, Notes on the Apocalypse Gleaned at Lectures in Geneva, (Stem Publishing, 1842).
doi:http://www.stempublishing.com/authors/darby/PROPHET/05014_8F.html#a15.

trapped today can resign themselves to the fact that, even though the world is locked into a downward spiral, they can take hope in the knowledge that submission to the always watching God and the social order He ordains will eventually yield rescue.

Darby locates the second judgment primarily in the book of Revelation, which he believes speaks of a literal event in which the heavens will be "opened for Jesus to come out as King of kings, and Lord of lords, to execute judgment and justice on the earth. Triumphant power as the operation of God first appears, and characterizes the vision - a white horse. . . His eyes had the piercing discerning power of judgment, many crowns were on His head."⁴⁰ Here we see Foucault's account of the disciplinary exam in cosmic proportions. Remember, the exam is a ceremony of power, the establishment of truth, and the deployment of force that depends upon continuous visual access to and thorough documentation of every bodily movement of the examined subject. Access and documentation also expedite the process of comparing and classifying subjects against each other. It also makes every subject an individual case for assessment and who can, therefore, receive rewarded or punished based on how her individual performance measures up to the established norm and her peers.

Darby's apocalyptic vision is an eternal ceremony of power and establishment of truth lead by Jesus Christ who is coming this time not in "priestly service," but rather is riding into the world with eyes of "divine unsparing scrutiny" to execute "priestly judgment."⁴¹ He will judge the individuals and the nations of the world according to their adherence to divinely established norms. Those who adhere to the minimal norm have already been set apart, raptured into heaven. This eschatological judicial proceeding is the establishment of truth by "the Ancient of

⁴⁰ Emphasis mine. Thoughts on the Revelation, (Stem Publishing).

doi:http://www.stempublishing.com/authors/darby/EXPOSIT/30030E_C.html#a15.

⁴¹ Outline of the Revelation, (Stem Publishing).

doi:<http://www.stempublishing.com/authors/darby/EXPOSIT/28028E.html>.

days” whose voice crashes on the earth like mighty waves.⁴² This is the deployment of force. Jesus is adorned in a "vestiture dipped in blood."⁴³ He comes as “the avenger. He tramples now the winepress of God’s wrath. It is not in the lowliness of humiliation, and to be trodden down by man that He comes; He comes to tread down in power.”⁴⁴ Christ utilizes his knowledge of the thoughts and actions of men to determine who will stand on the damning and eviscerating end of this disciplinary technology.

This second judgment, like the first, reinforces the consciousness of submission through fear of destruction. The fear of God's wrath and the piercing eyes of Christ's judgment reinscribe the imperative to believe in and submit to the God who ordains the powers of the world. This fear of destruction is also attended by the hope of victory which fuels the consciousness of resignation. When Christ returns to eradicate his enemies, he is not alone. All the faithful accompany him, "the called, the elect, and the faithful," and they together lay waste to the enemies of God.⁴⁵ The people of God will finally rejoice at their vindication.⁴⁶ Under this eschatological vision, the Christian can safely resign and bravely endure the injustices done to her in this life, because she will, through her faithful obedience to God, one day destroy the bodies of those who currently destroy hers.

Apocalyptic disciplining and the Church's just vindication ends with Christ's 1,000-year victorious reign on the earth, which is followed by the last judgment of Satan and humanity.⁴⁷

Darby writes,

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Darby, *Thoughts on the Revelation*.

⁴⁵ *Notes on the Apocalypse Gleaned at Lectures in Geneva*.

⁴⁶ *Thoughts on the Revelation*.

⁴⁷ Some premillennial eschatologies divide the judgment of human beings into two parts, one for non-believers and one for believers. Darby's stance on this point is ambiguous at best, but I think he tends in the direction of one judgment for all humanity.

The devil is now cast from earth into the lake of fire, being finally judged, as before cast out of heaven and then subsequently shut up. After this the great white throne of judgment is set. It was not now government; though in that there might be final righteous retribution - the judgment of the quick, as indeed it was as to the living who had rejected the testimony in Matthew 25, and of the beast and false prophet. But the present judgment was that of the secrets of men's hearts, and their answering for their works.⁴⁸

This last judgment envelops the first two and magnifies their effect by ascribing eternal reward or damnation according to submission and obedience. Premillennial eschatology projects the hope of rapture and the fear of violent punishment onto an eternal horizon. Those who believe and act correctly will luxuriate in the rewards of their faithfulness for eternity, and those who believe and act incorrectly will suffer the consequences for eternity. One of the principal problems here is the degree to which faith and obedience to God are synonymous with faith and obedience to the rulers of the world.

In this last judgment, the process of documentation, evaluation, and reward strikes a particularly capitalist tone; the final rewards reaped by the faithful in heaven bear a remarkable similarity to the rewards reaped by the faithful worker here on earth: material goods and special recognition by the overseer. In discussing the hardships endured by Christians in this life, Darby explicitly itemizes the rewards that God will confer on those who have endured extreme hardship, and, on this point, he creates conditions for an eternal class system, "White robes—tokens of acceptance and righteousness—are given to the slain remnant [martyrs]. The Gentiles seen in chapter 7 are those who have gone through the tribulation and therefore have a higher place of blessing than those born during the millennium.⁴⁹ Again, he writes about "those who have been especially faithful; they learn the heavenly song though they are not in heaven, and they have His comfort. They have shared Christ's rejection, and now they have a place of special

⁴⁸ Darby, *Thoughts on the Revelation*.

⁴⁹ *Outline of the Revelation*.

blessing. Special blessing is always the result of special sorrow.⁵⁰ Here we have the same operations as the first two judgments (resignation, submission, and justification), but now the hopes and longings of the poor for financial stability and normative acceptance, their fears and aversions of suffering and rejection are satiated finally and perfectly, for all eternity.

In his analysis of the disciplinary powers, Foucault seems to paraphrase Bentham's assessment, "The perfect disciplinary apparatus would make it possible for a single gaze to see everything constantly. A central point would be both the source of light illuminating everything and a locus of convergence for everything that must be known: a perfect eye that nothing would escape and a center toward which all gazes would be turned."⁵¹ Premillennial eschatology, then, is this perfect apparatus. Pessimism about human nature coordinates with the consciousness's of resignation, submission, and justification, and these conceptual developments—along with their embodied performances—operate inside of, draw energy from, and give energy to the other disciplinary instruments that have perfectly focused and energized working-class bodies as their ends.

This theological formation is the perfect disciplinary technology because it succeeds where the other technologies fail. The sight of the overseer, the warden, and the cop are all limited, and even though Man tried to expand their gaze, it could never be total. The same is true of social ideas about normal behavior. Even if the subject internalized those standards, there was always a space where he could slip beyond the gaze of the community. The Christian identity solves that problem. It reinvigorates and expands state disciplinary powers at the sites where prisons, police, hospitals, and schools lose their force, precisely because it the disciplinarian is

⁵⁰ Ibid.

⁵¹ Michel Foucault and Paul Rabinow, *The Foucault Reader*, 1st ed. (New York: Pantheon Books, 1984), 191-92.

both always invisible and yet *always, unequivocally* watching. Premillennial eschatology wraps the European, capitalist disciplinary powers and their purposes in an invisibility cloak of divine ordination. It justifies those powers and extends them. The gaze of the warden, policeman, doctor, and principle are limited, but the gaze of God pierces every shadow of the home, the factory, the school, the prison, and even the human mind. God is always watching, always documenting, always weighing and measuring. Premillennial eschatology operates with total efficiency and precisely directed force; it doesn't require the same physical infrastructure as governments that must employ physical resources to deliver force; it diminishes the possibility of disobedience by inculcating resignation to the status quo, palliating the suffering of the poor with the promise of rewards in heaven, and inducing the fear of temporal and eternal reprisal. At the site where new conceptions of freedom create a gap in the conduit between disciplinary powers and their target (working class bodies), premillennial eschatology enters to bridge that gap. It reinvigorates and innervates disciplinary power the moment it begins to falter and minimizes energy dispersion in unhelpful directions. Disciplinary technologies are an essential factor in how the world's energies have become so unevenly distributed because they guided human energy in the direction Man needed.

PART III: OUR PRESENT WORLD'S ULTIMATE CAUSE

CHAPTER 5: THE GOALS OF WORLD-MAKERS—LIMITLESS FREEDOM, INCALCULABLE WEALTH, AND ABSOLUTE CONTROL

*The final computation of [Man] freezes the world, for essentializing and weighing processes incapacitate difference and the unknown . . . so that after all is said and done, the dominant arrives at what is the same.*¹
--Chela Sandoval

Our present world could not have come into existence with intention. It was neither the product of solely natural physical forces, although those were essential, nor was it solely the product of social forces, although those were also essential. The white man has more cargo because he was lucky enough to have material advantages over other peoples, but he intentionally leveraged those advantages. He put those advantages to use, and he did it intentionally? What were those intentions?

There were, no doubt, a vast array of goals that motivated and determined the actions and advantages of modern-colonial Man. His goals were constantly under revision, and the details were constantly modified and nuanced. Moreover, the principal goals that shaped individual and societal action were constantly contested by individuals, groups, and institutions both inside of and outside of Europe; this holds true on both the micro and the macro level. Nevertheless, I want to highlight three overarching goals that pervaded the 500 years during which our modern world formed: freedom, control, and power.

FREEDOM: RUPTURING THE RELATIONSHIP BETWEEN MAN, TRADITIONS, AND GOD

Freedom was one significant, overarching goal of modern-colonial Man and his colonizing project. The idea of freedom, however, is complicated and much debated. To make our discussion somewhat more manageable, I want to analyze Man's concept of freedom by using the

¹ Sandoval, 125,6.

broadest definition possible, the definition that Gerald MacCallum proposes in his article on negative and positive freedom. He writes,

Whenever the freedom of some agent or agents is in question, it is always freedom from some constraint or restriction on, interference with, or barrier to doing, not doing, becoming, or not becoming something? Such freedom is thus always **of something** (an agent or agents), **from something**, **to do, not do, become, or not become** something; it is a triadic relation.²

Freedom, whether positive or negative, always has three variables: a subject, an object, and a goal. During the Renaissance, philosophers began to arrange and manipulate the three variables of freedom into arrangements that differed from earlier periods, and Pico della Mirandola's 1486 *Oration on the Dignity of Man* typifies the transition from one moment in history to a new one where the medieval "bondage" to ecclesial authority gave way to the Renaissance freedom of man. In the medieval period, all thought ran through the church, and the first principles of thinking, acting, and governing were "virtually fixed by the doctrines of Christian theology."³ In the *Oration*, Mirandola presents one of the earliest articulations of a newly forming version of freedom by re-narrating the Genesis story and conferring on man a new and expansive form of freedom. God says to Adam,

We have made you a creature neither of heaven nor of earth, neither mortal nor immortal, in order that you may, as the free and proud shaper of your own being, fashion yourself in the form you may prefer. It will be in your power to descend to the lower, brutish forms of life; you will be able, through your own decision, to rise again to the superior orders whose life is divine.

² Jr. Gerald C. MacCallum, "Negative and Positive Freedom," *The Philosophical Review* 76, no. 3 (1967): 314.

³Samuel Enoch Stumpf, *Philosophy: History and Problems* (New York,: McGraw-Hill, 1971), 216.

For Mirandola, freedom is freedom *of* the individual human being. It is freedom *from* both natural and supernatural constraints. Neither God nor nature will determine, control, or set boundaries on what man does or becomes. Moreover, freedom is *for* man to pursue his personal preference concerning what he will or will not become. Freedom is for doing the kind of things that will determine whether or not man transcends nature (become dignified) or remains forever trapped in the "lower, brutish forms of life." Charles Taylor summed up this impulse of the Renaissance and modern age; it is an age when "A purely self-sufficient humanism came to be a widely available option. I mean by this a humanism accepting no final goals beyond **human flourishing, nor any allegiance to anything else beyond this flourishing**. Of no previous society was this true."⁴ In the Renaissance, something new, a new kind of goal, emerges, and it is important to understand these goals if we are to make sense of the advantages that made attaining those goals possible. It is also important to understand, because this theme, freedom for development or becoming, will eventually become one of the defining marks of Man's conception of himself, a pervasive desire that fueled his actions, and a decisive idea that determined the fate of indigenous people's around the world.

Mirandola's re-narration of Genesis gives the impression that man, in theory, has been given absolute freedom, even from the determining and constraining forces of other human beings. In practice, in real life, however, the freedom of Renaissance man was still largely circumscribed in that he was still largely bound to traditional, historically, or communally determined forms of feeling, thinking, and acting. Renaissance man was constrained by the ideas of classical thinkers like Plato, Aristotle, the Sceptics, Epicurus, the Stoics, and humanism.

⁴ Charles Taylor, *A Secular Age* (Cambridge, Mass.: Belknap Press of Harvard University Press, 2007), 18..

Francis Bacon, a century after Mirandola, moves to crack open the ecclesial and philosophical fetters that constrained man's *freedom from* by rejecting the notion that the ideas and cultures of the past should circumscribe his thinking and acting. Freedom for Bacon is freedom from the past and freedom to attain comprehensive knowledge of nature, and exercising these freedoms are the mark of the ideal human, a rational knower who cultivates the habits necessary to read the natural world and who is freed from the constraints of traditional knowledge. In his tradition-challenging manifesto, *Organum Organum*, Francis Bacon initiates a movement away from both an ecclesial and a Classical order of knowing, an argument he elucidates most fully in his discourse on the Idols of the Mind. Here Bacon situated all true, valid knowing in the experience of the isolated, self-sustaining knower, and he presents himself of the prototype,

For I admit nothing but on the faith of eyes, or at least of careful and severe examination, so that nothing is exaggerated for wonder's sake, but what I state is sound and without mixture of fables or vanity. All received or current falsehoods also (which by strange negligence have been allowed for many ages to prevail and become established) I proscribe and brand by name, that the sciences may be no more troubled with them.⁵

Bacon is not arguing that all the classical and humanist thinkers were completely ignorant of the truth. Nor is he claiming that all of their knowledge must be rejected, even though most of it needs to be. Rather, he is arguing fables and myths had tainted their thinking, and therefore it must all be subjected to the final authority: the experience of the individual, because "generally speaking science is to be sought from the light of nature, not from the darkness of antiquity." Man should not be constrained by other Men. Rather, he should be free to inquire into the truth, unencumbered by the traditions and truths of men.

⁵ Bacon, *Kindle Locations* 416-18.

Bacon's man and his apprehension of the truth, nevertheless, does have to contend with two limiting factors: God and his own feeble human nature. With respect to God, Bacon sets out three limitations, "the first, 'that we do not so place our felicity in knowledge, as we forget our mortality;' the second, 'that we make application of our knowledge, to give ourselves repose and contentment, and not distaste or repining;' the third, 'that we do not presume by the contemplation of nature to attain to the mysteries of God.'"⁶ Even still, outside of these limitations, human beings are free to pursue comprehensive knowledge of all natural things. Regarding the natural constraints on man's freedom, he believes that "the mind of man is far from the nature of a clear and equal glass, wherein the beams of things should reflect according to their true incidents; nay, it is rather like an enchanted glass, full of superstition and imposture, if it be not delivered and reduced."

Thomas Hobbes pushes past the limitations that Mirandola and Bacon imposed on man's freedom and argued that the freedom of the individual is, in the state of nature, theoretically, absolute. There is no divine or communal restraint that limits Man's freedom. Man's freedom is absolute, and he has a right to everything,

And because the condition of Man . . . is a condition of Warre of every one against every one; in which case every one is governed by his own Reason; and there is nothing he can make use of, that may not be a help unto him, in preserving his life against his enemyes; It followeth, that in such a condition, every man has a Right to every thing; even to one another's body.⁷

For Hobbes, "the word *right* in the bare state of nature is man's *freedom*, 'to do what he would, and against whom he thought fit, and to possess, use and enjoy all that he would, or could get.'"⁸

In this state of nature, man is bounded by nothing other than his own weakness. Herein lies the

⁶ Ibid., Kindle Locations 640-78.

⁷ Hobbes, 77.

⁸ Stumpf, 243-44; *ibid.*

terrible problem facing the human being in the state of nature, “. . . as long as this naturall Right of every man to every thing endureth, there can be no security to any man, (how strong or wise soever he be,) of living out the time, which Nature ordinarily alloweth men to live.”⁹ This insecurity induces men to “Renounce some of their rights or freedoms and entered into a social contract and thereby create an artificial man, the great *Leviathan*, called the *Commonwealth*, or *state*.” The limitations placed on man’s freedom are, fundamentally, limitations that man chooses for himself out of a desire for safety. He can choose to forgo these restrictions on his freedom, but such a choice would be irrational.

POWER AND CONTROL: GUIDING THE ENERGIES OF THE WORLD TO HIMSELF

It has always seemed curious to me that man should investigate the external world, recognize its order, and make certain generalizations about its behavior, which he calls the laws; that he should study his own organism and discover there a kind of orderliness of inner behavior, which he seeks to correct when it acts out of character by a wide variety of ministrations, from drugs and surgery to hypnosis and faith-and yet that he should be inclined, at the same time, to regard himself as an entity apart from all the rest of creation, including his body. Man is body, but more than body; mind, but more than mind; feelings, but more than feelings. Man is total; moreover, he is spirit.¹⁰ —Howard Thurman

Modern-colonial Man's truth-for regime made claims about the nature of man and the nature of his freedom. His truth-for regime *about* freedom translated into freedom *for* someone (Himself) and *for* something, the pursuit of continually increasing control and power over every aspect of the universe. Frances Bacon, in fact, derided all other aspirations, like extending one's power over the nation or extending the power of the nation over other nations, as "vulgar and degenerate," but, he writes, "if a man endeavor to establish and extend the power and dominion of the human race itself over the universe, his ambition (if ambition it can be called) is without

⁹Hobbes, 77.

¹⁰Howard Thurman, Walter E. Fluker, and Catherine Tumber, *A Strange Freedom : The Best of Howard Thurman on Religious Experience and Public Life* (Boston: Beacon Press, 1998), 82.

doubt both a more wholesome and a more noble thing than the other two."¹¹ What does Bacon mean? What does it mean to desire the establishment and extension of power *and* dominion? Are power and dominion different? Is desiring power different from desiring dominion?

When Bacon uses these two terms, I think he conflates them. I think that he merely intends to signify a desire to dominate and control. I would like to suggest that we carefully distinguish between them, however, by thinking about *dominion as a physical reality* and *power as a mental-emotional reality*. Dominion is the physical, objective action of having the means to control and exercising those means. Power, on the other hand, is human awareness of control, the extent of control, and the goodness or badness of that control. *The difference between dominion and power is the difference between acting and being aware of that action and its effects. Power requires action and full awareness of action.* Let me explain what I mean in more detail.

The Oxford English Dictionary defines control as “the action or fact of holding in check or restraining; restraint.”¹² It also defines it as “the fact or power of directing and regulating the actions of people or things; direction, management; command.” Even the OED makes control and power synonyms, but I want to tease out a difference. How is power different from control? Some would say, like the OED, that “power” means the *ability* to exercise control or the actual exercise of control; power makes control possible. I think that misses the mark. We can talk about a man utilizing some material or immaterial tool (like an axe or words) that enables him to control the processes that transform a system, to determine how those processes unfold within the system, to guide the direction in which the system changes, without speaking about power.

¹¹ Bacon, Kindle Locations 6037-39.

¹² "Control," in *Oxford English Dictionary, OED Online* (Oxford, England: Oxford University Press, 2000). Accessed April 12, 2017, <http://www.oed.com.proxy.lib.duke.edu/view/Entry/40562?rkey=zM0Zsg&result=1&isAdvanced=false#eid>.

We can simply talk about his control over the world's material systems and the various means that enable that control. "The man had control of the situation and control of the tree because he had control of an axe that enabled him to cut down the tree." In the case of language. "Man had control of the world because he had control of the language and He convinced people that the world's populations should be hierarchically organized and that people should be treated differently according to their place in the hierarchy. He also had control because he controlled the material means (guns, ships, chains, factories, etc. . .) to enforce those ideas about the world." There is no to bring power into the conversation. We don't need to say that man had power over the situation, or the tree, or people. Control is sufficient.

The moment one invokes the term "power," I think that we are signifying something more. Power says something about the *measure of control, the quantity of control, and whether we experience that control as good or bad. Power signifies both the act of control and our awareness, our experience of that control.* Before explaining this in detail, let me offer an analogy from an mundane situation, a baseball game.

Softball and baseball fans know what it means to talk about bat control. Bat control references a batter's ability to trace the difficult-to-predict trajectory of an incoming ball and coordinate her intention (to hit the ball) with her entire body and the bat to put the bat in contact with the rapidly approaching ball. The batter's act of coordination all those elements is control. The hitter has control of her body and the bat, and through that control she can hit the ball.

To say that the hitter has *excellent* bat control makes a statement about the *quality* of her control and *the context within which* she executes that control. It means that she can coordinate her body and the bat with precision so that they connect with the ball, and that the connection she makes with the ball sends the ball in a particular direction (an empty space on the softball field).

If she can do this routinely, we call her an *excellent* hitter. But why are the frequency of contact and the trajectory of the ball relevant to excellence? Because her exercise of control occurs within the context of a game that has rules and a purpose. Controlling the bat so that it puts the ball in a particular location is intended to get her to first base, and that is intended to get her to home plate so that her team can win.

Up to this point, we haven't had to speak about *power* to understand what is going on. Power adds *another layer* of meaning. There is a distinct difference between an excellent hitter and a powerhouse hitter. A powerhouse hitter possesses body control, bat control AND *extraordinary force*. A powerhouse hitter has the ability to coordinate her body with the bat and deliver an extraordinary amount of force into the ball and send the it to a very, very specific location: the other side of the outfield fence. She can hit a home run. For an observer to be aware of force, she must have the ability to perceive bodies, distances, speeds and trajectories. Therefore, awareness of power requires that ability to perceive bodies, distances, speeds, and trajectories. Moreover, this exercise of force, this exercise of "power" isn't fully intelligible without an awareness of the game's rules. An alien who has never seen a baseball game would be utterly perplexed at the sight 20,000 people cheering and weeping because someone used a stick to hit a little round ball over a fence—many humans are also perplexed by this. Truly understanding power requires an understanding of the standards of measurement and how people are related to that standard of measurement, which means an understanding of the rules of the game and how people experience those rules.

To summarize, power arises in this manner:

I. External physical force interaction (batter swings bat and hits ball)

+ 2) Observer perceives force application and its effect (a fan sees and hears the batter hit the ball and the ball change course)

- + 3) Observer synthesizes and applies relevant standards of measurement and rules of the game to the situation to understand what is happening (the fan knows that the ball traveling over the fence = a homerun and thus her team has won the world series)
- + 4) Observer has an emotional response based on the effects of force applied, the rules of the game, and her position within the game (the application of force has sent the ball over the fence, team has now scored the winning run, and she is elated because she is a fan of the winning team)
- + 5) Observer has an emotional response based on the effects of applied force, the rules of the game, her position within that game, and her position within a larger context—her entire life (the application of force has sent the ball over the fence, team has now scored the winning run, and she is elated because a) she is a fan of the winning team, b) she bet on the game and is now a millionaire, c) being a millionaire will make her the envy of all her friends and she will never have to work again.

So, where do we find power? In the mind of an observer! Let me explain this idea in more detail and relate it to Man's aspirations.

Man's Aspirations to Power

"Power" is incomprehensible, it is unthinkable, without assessment, calculation, and quantification. In fact, power does not exist until a situation has been assessed, calculated and quantified. Physically speaking, "control" is an action that determines *how* events transpire; control requires utilizing certain means (abilities and tools) to determine how a process unfolds. So, on the one hand, Bacon is after control and the means of control. Power, though, is *not* a thing that can be possessed, manipulated, or traded. Power is *not* an ability that is inherent to a thing, or that can be attributed to or added to a thing. Power does not enable one to have control over something. Bacon's "man" who strives for power is not striving after some *thing* that can be found over there in place X—although, he is certainly pursuing diverse *ends*.

“Power,” always refers to an emotional and mental reality, and it only exists *when a process occurs where interacting agents change a system from an initial state to a final state and*

when some subject observes and assesses that process. Power is, essentially, a measurement of the effects that result from interacting bodies and the changes those interactions cause within a system. "Power" is an evaluative term that quantifies the outcome of a series of interactions that occur between agents, and these interactions between agents constitute a dynamic process that transforms a system or set of systems from an initial state to a final, different state. Do we ever speak about power without quantification? Rarely! We typically say, "more or less power," "a little or a lot of power."¹³ Power summarizes all of the interactions that transpire in some events, and it measures the effectiveness and efficiency of agents acting within those interactions.

If power is, indeed, a mental quantity that requires observation, measurement, and calculation, a new level of Bacon's aspiration emerges, and he uses the word "power" with absolutely precision. As we stated earlier, Modern colonial Man aspired to control, which means that he aspired to obtain both the resources that facilitate control *and* to utilize those resources in the actualization of control. However, *he also desired power*, and this is something different. To

¹³ Mechanical Engineer and leading expert in thermodynamics, Adrian Bejan, provides an exemplary case that not only demonstrates how power is control quantified but also of the changing relationship between human beings and power throughout history, "The direction over time has been one-way, toward more power for more individuals over larger territories, and more power for every individual . . . When one source of power proved insufficient, a new one was added, increasing power with each adaptation in a very clear direction over time: from work animals to waterwheels and heat engines, all in a growing river basin of power flow and use on the earth. Not in the opposite direction." (Bejan, *The Physics of Life : The Evolution of Everything*, 41.) Even though Bejan speaks about power as a thing in this quote, the language he uses foregrounds the connection between power and measurement: more power, insufficient power, power for more people, and so on. The context of the quote clarifies his meaning. Power is, fundamentally, a measurement of work done on bodies. Without changing his meaning, we could rewrite his argument, "The direction over time has been one way, toward technologies that can do more work with less fuel for more individuals over larger territories, and technologies that can do more efficient work for every individual. When one source of work proved insufficient, a new one was added, increasing the amount of work things can do (power) with each adaptation in a very clear direction over time." When an observer quantifies this work, He then, and only then, has a grasp of the power involved and how much power he possesses.

say that he desired power is to say that *he aspired to evaluate, measure, and calculate the effectiveness and efficiency of his tools and the amount of control they provided. More importantly, he intended to calculate the magnitude of his effects (his control) in those universal systems and to adjust his reasoning and acting in a way that increases his ability to exercise control over how those systems change and thereby determine them in a way that suits his purposes. Lastly, he intended to compare his power with the power of others.*

On this point, Bacon is performing the operation that Howard Thurman finds so strange, regarding “himself as an entity apart from all the rest of creation, including his body.” Man wants to become the observer, the measurer, and the calculator, and the universe will be the object of his observation and the object over which He seeks control. However, Man cannot change the fundamental laws governing how bodies affect each other in their interactions, and those laws will perpetually challenge him as he pursues freedom, control, and power because he will always have to work inside a field of force relations that always outstrip his abilities. And so, he will have to penetrate the mysteries of creation's interactions. He will have to "know" the intricacies of bodily relationships. Bacon demonstrates an unsettling awareness of this fact, "For the chain of causes cannot by any force be loosed or broken, nor can nature be commanded except by being obeyed. And so those twin objects, human knowledge, and human power, do really meet in one; and it is from ignorance of causes that operation fails."¹⁴

Bacon's point is clear. The extent of Man's freedom, power, and control will depend upon the extent of his knowledge. Both what He knows and what the rest of the world “knows.” He will have to redefine the world, and the rest of the world will have to accept His knowledge. Liberating the energies of created bodies so that He can utilize them for his purposes will require

¹⁴ Bacon, Kindle Locations 464-65.

him to "know" the world and for the world to know itself as Man does. This means that Man had to direct his energies towards observing, measuring, and calculating the intricacies of creation. He had to determine how much work each body and its energies could do, should do, and how efficiently it should do its work. He had to quantify how many bodies and how much energy he had at his disposal. But He had to do more than liberate bodies and their energies. He also had to calculate ways to possess and direct those bodies and their energies, which means that he had to acquire control over them and thereby direct their movement towards the end that he thinks most appropriate. Furthermore, by orchestrating the operations of those bodies and their various energies towards the ends he determined, he could then use them to do the kind of work (i.e. exert force and displace other bodies) that would shape creation's complex systems in a manner suitable to his universal vision. In order to control the systems of the universe and their transformations, he had to command the bodies of the universe.

CHAPTER 6: THE GENERAL HUMAN FACULTIES THAT CREATED OUR PRESENT WORLD

If we want to give an account of how our present world came to be, if we want to answer Yalis' question about why the white man wanted so much cargo, even if though acquiring all that cargo required theft, abuse, and murder, we have to account for human nature. We have to talk about the kind of creatures we are and why we do the things that we do. It seems odd that human beings, at some point, way back in our history decided that it would be good for us to take hold of the world's energies and hoard them. The breathing exercise in the introduction reveals the insanity of what we have done. Why do we feel the need to possess the world, identify with the world, as though the material things we attach to our bodies or the material structure we reside in are somehow *us*?

With this dissertation research, I set out to answer these questions from one perspective, the perspective of Thomas Aquinas. I did that primarily because I wanted to utilize the research I had already done in my classes, but also because I was curious to see what kind of help Aquinas could offer us in thinking about our problems. The resources that I found in Thomas have been helpful for my reflections, but they don't go far enough. The following pages need to be expanded significantly, and I think that they will benefit greatly by bringing other interlocutors into the discussion. I am thinking specifically right now of Buddhist texts because the Buddhist traditions assess the human condition and its problems similarly to Aquinas. The problems are greed, pride, and ignorance. Those are the ultimate causes of human suffering. I have already begun reading those text carefully, and I am, as you have no doubt already noticed from earlier sections in the dissertation, started to incorporate those ideas. For now, though, I share with you what Aquinas has to offer.

Tragic human action, sinful action, for Aquinas, arises from a complex chain of causes involving five capacities or power of the human soul: vegetative, sensitive, appetitive, locomotive, and intellective. Because sin arises from a complex causal chain and because it has extensive and unique effects on critical soul powers, it will be helpful to briefly outline the anatomy of powers that Aquinas delineates,

I. Vegetative Powers: The automatic, unintentional processes of the body.

- a. Generative power seeks the acquisition of existence—reproduction.
- b. Augmentative power aids the bodies acquisition of due quantity—i.e. growth.
- c. Nutritive powers preserve the body in existence and its due quantity.

II. Sensitive Powers:

- a. External passive powers that include sight, smell, touch, taste, hearing.
- b. Interior sense powers: common sense which perceives immediate things; *fantasy and imagination* which are the storehouse of information that has been received through the senses; *estimative which sense intentions* that cannot be perceived by the external sensitive powers; and *memory* which stores the intentions that had been perceived by the estimate the powers and help us remember what kinds of beings may have harmful or helpful intentions.

III. Appetitive Powers (passions):

- a. Sensitive appetite, which relates to bodily flourishing and is directed towards sensual/sensible things. It receives information from sensitive power and impels the person toward or away from the desirable or threatening objects. This appetite has two forms of passion:
 - i. Concupiscible passion: moves us to acquire things which are suitable for our existence and avoid unsuitable things.
 - ii. Irascible passion serves the concupiscible by helping us resist any kind of object or danger. It is inclined towards arduous tasks.
- b. Intellectual appetite (passion): otherwise known as the will. This passion, unlike the sensitive passions, is concerned with our good as such, the overall flourishing of the human being which is achieved in obtaining natural and spiritual flourishing.

IV. Locomotive powers: they enable creatures of desire to physically pursue the objects of their desire.

V. Intellectual Power:

- a. *Passive intellect denotes a condition or state of existence.* The passive intellect doesn't denote a distinct power of the intellect, so much as it marks

the created nature of our existence. We are created intellects, and our intellect is passive in that *it can receive information and has the potential to understand the world.*

- b. *Active intellect* abstracts the nature of individual intelligible things so that we can understand them. This is the power that enables us to make sense of objects in our environment. The active intellect proper activity is *reasoning*, which is to move discursively from one simple thing understood to another to arrive at an intelligible truth that can then be judged according to known principles. The ultimate goal of reasoning is rest, which is understanding.¹
 - i. *Higher Reason and Lower Reason*: higher reason is oriented towards the eternal/natural law in order to make proper judgments about temporal things which are the focus of lower reason.²
 - ii. *Speculative Reason and Practical Reason*: speculative reason considers what is apprehended under the aspect of truth and practical reason considers what is apprehended under the aspect of useful.
 - iii. Synderesis: the *habit* of practical reason that enables wise judgment, and is a habit endowed by nature.

In respect to sin's effects on the faculties of the soul, we have already established that the will serves as the source of all human relating: internal and external. And, we have also established that sin can originate in faculties other than the will because sin arises in any power that can act voluntarily and in a ratio that threatens human relations to God, neighbor, and self.

Since sin requires voluntary action, we can immediately rule out vegetative powers as the subjects responsible for sinning because they are incapable of volitional acts. The will does not have to force the heart to work. Generally, my lungs do not have to be told to breath. They just do. The other faculties of soul, however, are capable of volitional acts, and they are subject to operate in ways that are either excessive or insufficient.

SINS FROM MAN'S PASSION

The sensual powers or passions or powers of desiring serve a vital role in all animal flourishing. They guide animal bodies in their pursuit of things that sustain and strengthen them.³

¹ ST. I, Q. 79, Art. 3-5.

² ST. I, Q. 79, Art. 8-9.

³ I-II, Q.84, A.4.

Consequently, sensual powers, when functioning rightly, tell the animal what and how much they though bodily pleasure/satiety.⁴

There are two important things that differentiate humans from other animals, in respect to the passions. First, there is something about the human condition that *warps the passions in a way that causes the creature to desire either too much or too little*.⁵ This is the problem at the heart of the human condition. When the sense appetite has too much or not enough influence in the internal system that generates human activity towards flourishing, we are inclined or drawn towards actions that diminish our flourishing. This is a critical point. An overly rapacious appetite isn't the only problem. A diminished appetite can be just as fatal, as we see in cancer patients whose appetitive power has been thrown off balance. They not only don't desire food, the thought of it nauseates them. As a result, the whole body struggles to operate with insufficient fuel. Second, *our sensual powers are susceptible to the coordinating power of the will and the guidance of human reason*. However, our passion for things doesn't immediately move us to action—by an instinct. We have a choice (to a sometimes greater and sometimes

⁴ In 2006, the NY Times published a story that illuminates this point precisely. They have discovered that mice who are mildly hungry (not starving and not bloated) take in and retain information faster than mice who aren't hungry. The lead researcher commented, "It makes sense . . . when you are hungry, you need to focus your entire system on finding food in the environment." The article goes on to suggest that students go into standardized tests mildly hungry and then snack to keep themselves in that state throughout the test. This is a paradigmatic example of coordinated human passions. Our rational powers discover this interesting and useful fact. Students then learn the principle and then enlist the power of the will to put it into action. On the morning of the test, the student wills her body to ignore the appetites desire for a five course breakfast. Instead, she eats just the right amount of food. Not too much and not too little. All of the human powers have coordinated so that she can attain a greater good: excelling on her standardized test. Christopher Shea, "Empty-Stomach Intelligence," *New York Times* (2006), http://www.nytimes.com/2006/12/10/magazine/10section1C.t-1.html?_r=0.

⁵ Ed Farley, Paul Tillich, and others point to anxiety as the source of this tendency. Aquinas, ultimately points to pleasure and fear, which is dealt with in I-II, Q. 84 under whether or not one sin can cause another.

lesser degree) as to whether or not we will continue to entertain an appetite and whether or not we will act on it. It is this precise point that makes us culpable for vicious acts.

How, do the sensual passions cause sin? On the one hand, they distract and weaken the soul's other powers. On the other hand, they overcome the soul's rational powers. However, there is more at play in sensual appetites than just a desire for food, sex, houses and fame. Fundamentally, excessive sensual desires involve self-love because they are fundamentally directed towards our own good—to an excessive degree. To love the goods of the world excessively is to love ourselves excessively. Ultimately, Thomas divides up the sins of passion according to the two main appetitive powers: concupiscible and irascible. The concupiscible passions are two-fold. One, passions of the flesh, which draw us towards physical goods that are essential to our survival as individuals and as a species: food, sex, shelter, et cetera. Two, passions of the eyes, which draw us towards things that are delightful to the imagination or apprehension, like money and clothing. There is only one irascible passion, the pride of life, which is an excessive desire for excellence (an arduous good) and the rewards that come with it.

SIN FROM MAN'S WILL

We have already established the most important principles of the will and its relationship to sin. Principally, a breakdown in the power of the will constitutes the gravest form of failure because the will serves as the motivating force that moves all the bodily powers to action. Whereas the breakdown in the sense appetite is an excessive or insufficient desire for physical goods, and whereas the breakdown in the intellect is ignorance, a corruption of the will means, necessarily, a direct weakening of human desire for flourishing in general. To put it another way, the failure of the will weakens our ability to relate to God, our neighbor and ourselves in ways that maximize human flourishing. Thomas writes,

The will is out of order when it loves more the lesser good. Again, the consequence of loving a thing less is that one chooses to suffer some hurt in its regard, in order to obtain a good that one loves more: as when a man, even knowingly, suffers the loss of a limb, that he may save his life which he loves more. Accordingly when an inordinate will loves some temporal good, e.g. riches or pleasure, more than the order of reason or Divine law, or Divine charity [love], or some such thing, it follows that it is willing to suffer the loss of some spiritual good.⁶

Essentially, a malicious will intentionally sacrifices the life of the individual for love of the limb.⁷ Technically, Thomas calls the failure of the will, “malice,” which is an explicit love for that which is evil or destructive to spheres of human relating. An important caveat, this does not mean that the person who loves and wills evil does so because it is evil.⁸ *They do it because they believe that form of evil to be a certain form of good*, and therefore, they are willing to forego the promise of greater and more lasting goods for the sake of a lesser good. They fixate on a mutable good.

Malice is the gravest and most dangerous habitus because it represents a corruption of desires that should be directed to patterns of personal, social, and divine relating that lead to flourishing. As a habitus, though, malicious acts are not a *fait accompli*, because all *habitus* are subject to the movements of the will. So, someone may have a deep love for certain evils without acting on those loves. Furthermore, malice is a grave habitus because it relates directly to the will. It is the will’s habit of loving those things that diminish our lives, and unlike the passions whose impulses fade away, a will habituated to evil tends towards a kind of calcification that cements the person perpetually into vicious, life threatening acts.

SIN’S FROM MAN’S IGNORANCE: SOCIAL IDENTITY AS AN EXAMPLE⁹

⁶ Ibid.

⁷ Mark 8:36, “What good is it for a person to gain the whole world and lose his soul?”

⁸ I-II, Q. 78, Art. 1.

⁹ I, Q.49, Art. 2,

It is rather ironic! When we look carefully at the events of the last 500 years, when we listen to the stories that slaves have to, and if we bring Aquinas to bear on the problem, we get a surprising solution: irrationality and ignorance. It's ironic because man prided himself on his superior intelligence and moral development. However, he pridefully and ignorantly deluded himself. We have already examined the failure of man's intellect briefly, but we can go deeper.

Thomas points first to the sin of the first human parents, which examines carefully in his Treatise on Sin that I won't cover here. Essentially, though, the original sin precipitated the loss of a particular habitus (original justice) that aided our already good faculties in their pursuit of flourishing by orchestrating them to operate harmoniously as a collective. Thomas is careful to distinguish between two different kinds of habitus. One kind can be formed through practice and pertains to our individual faculties, and the other is a general disposition of a complex nature. Original sin pertains to the second sense. Through pride humans lost their habitus of a complex nature that created the conditions within which further failure was established. Our faculties were more susceptible to fail.

This doesn't solve the problem though, because all the individual faculties (sense perception, emotion, intellect and will) are¹⁰ imbued with a virtuous desire to function properly. How do they produce actions that destroy self and others and move us back towards nothingness? Don't the virtues naturally move us towards respecting the dignity of all life?

The first critical response, which we have already discussed, relates to the nature of the virtues themselves; the virtues stand at the midpoint between a power of the soul and its action, and they don't, therefore, necessarily produce actions that lead to flourishing.¹¹ This leads us to

¹⁰ I-II, Q. 76

¹¹ On the location of habitus, c.f. I-II, Q. 71, Art. 3.

the second important point about Thomas theory of evil and sin. *Evil, destructive acts come directly out of some kind of failure of the human faculties of feeling, thinking or willing.*

As I have already intimated, in the theology of Thomas, sin is fundamentally a negative reality. Thomas writes, “For evil is the absence of the good, which is natural and due to a thing . . . But only good can be a cause; because nothing can be a cause except inasmuch as it is a being, and every being, as such, is good.”¹² This position has a logical consequence. Evil action must come not from a positive reality (the virtuous tendency and proper functioning of our faculties), but rather from some kind of emptiness, some kind of absence in those faculties. And that is precisely the point; human beings act in evil ways because the critical and vital faculties given by the Creator for their flourishing have failed in some way. Resultantly, we destroy ourselves and others. In question 49, he cites Augustine, "God is not the author of evil because He is not the cause of tending to not-being." Inasmuch as the faculties of our soul are emptied of the goodness for which they were created, we tend towards self-negation. We tend towards destruction. So, what kind of malfunction takes place in our faculties that causes a person or a group to pursue something inordinately? A failure of the intellect is one cause.

The Intellect's Failures

Besides the sensuous passions, sinful acts also arise from a breakdown of reason, which plays a critical role in helping coordinate our internal and external relating. Our cognitive faculties serve two main purposes in directing us to flourishing, They distinguish the true from the false and guide the soul's other powers, and so ignorance of vital information is one form of emptiness or negative space from which vicious acts may arise.

¹² I, Q. 49, Art. 1

Not all ignorance is morally culpable, however. Understanding more specifically what constitutes sinful ignorance requires understanding how reason coordinates and guides the other powers. To begin with, *our* minds have the *capacity to know and obtain general principles of life and existence*. In a Christian context, we would say that the intellect has the capacity to know how God created the world and, because of Divine revelation, how we are supposed to relate to that world. In a legal context, we could say that the human intellect has the capacity to understand basic legal principles: don't drive over the speed limit. Furthermore, *our rational power can apprehend all the particularities of a situation*. From the information known in these two domains, the mind can move to towards concrete judgments and choices about the best way to relate to ourselves (how to coordinate our internal life and how to act on that coordination), other subjects, and other objects within our sphere of acting.

To apply this to the problem of race, one can know the universal proposition that slavery and slander are, always and forever, sinful and that one has an obligation to actively avoid enslaving or slandering people. Furthermore, one can know the essential nature of slavery and slander, that they involve the relationship between people and that they constitute unjust treatment. In a particular situation, like the capture and enslavement of Olaudah Equiano, an individual present at the event would sort through the data presented by the senses, consult the relevant known principles, and determine that this particular man is indeed a human being and, consequently, must be related to in some particular manner that excludes lynching.¹³ Prudently,

¹³ Aquinas knows that, in actuality, this kind of reasoning process doesn't always happen or that it's execution is far more complicated than the above example. In most cases our response is a habituated one, but those habituations are, ideally, based on communally determined principles. Amanda Shotwell deals with this kind of epistemological situation by arguing that oftentimes our propositional knowledge embeds itself into the consciousness in away where it becomes implicit. C.f. chapter 1 of Alexis Shotwell, *Knowing Otherwise : Race, Gender, and Implicit Understanding* (University Park, Pa.: Pennsylvania State University Press, 2011).

the individual would refuse to participate in such an activity and (if sufficiently virtuous and under the right circumstances) would actively resist others who were trying to participate in it. Ignorance of either the general principles or the nuance of the situation can result in sinful participation in slavery or slander. If I don't know or believe that Olaudah Equiano is a human because my culture has slandered all Africans and dehumanized them, I will be more inclined to the destructive acts of slavery and racial slander.

Non-Culpable Ignorance

Ignorance, in general, though, doesn't automatically make someone guilty for harmful action or inaction. In order to constitute culpable ignorance, several conditions must be met. First, *the principles or information not known must be relevant*. Some information is simply not relevant to particular situations where thoughts, words, and deeds may produce harm. In the case of the slave trade, none of the participants had any knowledge of astrophysics. That ignorance, however, is irrelevant in terms of sinful ignorance, because knowing that information wouldn't have helped prevent the slave trade. Second, *the person must have an obligation to know the information*.¹⁴ Third, the person must be *capable of knowing the relevant and obligatory information*.

Under what conditions might one be incapable of knowing something important in the case of race? A growing body of literature is addressing this specific problem as it relates to whiteness and epistemological patterns. I will point to one important point. Individuals can exist in a *comprehensive epistemological systems* that determines who counts as both a credible

¹⁴ This raises an interesting question about what things one should and should not know. For Thomas, every human being is responsible to know the articles of faith and the universal principles of right, which would include the prohibition against lynching and the imperative to actively resist it.

and a sincere authority and, consequently, what forms of propositional knowledge count as valid and necessary truths.

Sullivan and Tuana argue that race can play an important role in what people know and don't know. They contend that racism can produce "white ignorance, straightforwardly for a racist cognizer, but also indirectly for a non-racist cognizer who may form mistaken beliefs ... Because of the social suppression of the pertinent knowledge, though without prejudice himself."¹⁵ They elaborate further, "... concepts orient us to the world, and it is a rare individual who can resist this inherent orientation. Once established, the social mindset, its influence is difficult to escape, since it is not a matter of seeing the phenomenon with the concept discreetly attaches but rather of seeing things through the concept itself."¹⁶

Amanda Shotwell picks up on the same theme in her interpretation of Pierre Bourdieu's concept of *habitus*, which operates across temporal moments, integrates the past and functions as a matrix of perceptions, appreciations and practices. The difficulty is that these *habitus* tend to reinforce and perpetuate themselves, they create a future and a body *hexis* that determines individual and collective body patterns.¹⁷ They have an overwhelming force that is difficult to surpass. Importantly, Bourdieu's concept of *habitus* closely parallels Aquinas' treatment of original justice, the virtues, and vice. The vice of the intellect is just what we are talking about, habituated ignorance, the kind of ignorance that justified the enslavement of scores of human beings.

Fundamentally, Thomas would call this ignorance something like *systemically habituated forms of ignorance* that perpetually empty the human intellect of critical information necessary

¹⁵ Shannon Sullivan and Nancy Tuana, *Race and Epistemologies of Ignorance*, Suny Series, Philosophy and Race (Albany: State University of New York Press, 2007), 21.

¹⁶ *Ibid.*, 27.

¹⁷ Shotwell, 12-15.

for flourishing. Consequently, this lack of knowledge leads to acts of mass destruction, like slavery.

Evil Ignorance and Culpable Action

These important insights raise complicated issues about culpability. To what degree are white people culpable for their racist action or their inaction? If they simply couldn't know otherwise because of epistemological patterns and socially determined propositional content, to what degree are they morally and legally responsible and deserving of punishment? If the individuals involved and the society as a whole were controlled by socially determined epistemological, emotional and bodily patterns, how can they be held responsible?

Amanda Fricker further problematizes the concept of culpability. In *Epistemic Injustice: Power and the Ethics of Knowing*, she sets out a rationale for differentiating between stereotypes, prejudices, and negative-identity prejudicial stereotypes. A stereotype, she writes, is a "widely held association [based on empirical generalizations] between a given social group and one or more attributes" that may or may not be correct. These widely held associations develop through imaginative social co-ordination among groups of individuals who have shared conceptions of social identity. Stereotypes, in and of themselves, have extraordinary active and passive power (identity power) to shape the lives of both individuals and groups, but they also coordinate with other forms of social power.

Stereotypes are, however, essential to our everyday testimonial exchanges where we need to instantaneously judge the credibility of speakers without thinking rationally, syllogistically through all of the data necessary to determine whether or not the person speaking to us is believable.¹⁸ For Fricker, "stereotypes are a proper part of the hearer's rational resources" as she

¹⁸ Miranda Fricker, *Epistemic Injustice: Power and the Ethics of Knowing* (Oxford ; New York: Oxford University Press, 2007), 30.

makes important decisions about who constitutes a credible speaker and who doesn't.¹⁹ For example, I stereotype people who are dressed in certain kinds of uniforms, judging instantly whether or not they are competent and sincere sources for information. If I run into a woman dressed like a doctor, I presume (stereotypically) that she can help me figure out how to make my cold go away. This woman may not be a doctor. Perhaps she is on her way to a costume party. In this particular case, my stereotype may have turned out to be an error, but generally the stereotype will be reliable and essential to navigating the world successfully. In Thomist terms, we could say that human flourishing requires creating and knowing relevant social stereotypes.

Stereotypes become problematic, however. The critical shift happens when a stereotype turns into a prejudice. Fricker defines prejudices as "judgments, which may have a positive or a negative valence, and which display some (typically, epistemically culpable) resistance to counter-evidence owing to some affective investment on the part of the subject" (emphasis added).²⁰ The difference between prejudice and stereotype is an unwillingness to alter one's view of the other individual or group when presented with new evidence that would challenge the validity and truthfulness of what should be useful heuristic tool (a stereotype).

The problem with stereotypes is that they are often accompanied with negative identity prejudices and produce negative-identity prejudicial stereotypes. This stereotype is "a widely held disparaging association between a social group and one or more attributes, where the association embodies a generalization that displays some (typically, epistemically culpable) resistance to counter-evidence owing to an ethically bad affective investment."²¹ Whereas prejudice can have a positive or negative valence, negative identity prejudicial stereotype always

¹⁹ Ibid.

²⁰ Ibid., 35.

²¹ Ibid.

work against the speaker, resulting in the hearer judging the speaker as epistemically untrustworthy (incompetent and/or insincere) in order to obtain some kind of unethical, bad end. Fundamentally, this kind of stereotyping is motivated irrationality, a concept that we will return to in our consideration of sin's effects on the mind.

Here, contemporary theories about race and epistemology intersect with Aquinas' medieval anthropology and theology of sin. Thomas writes in explicitly medieval, scholastic Christian language about motivated irrationality, "when a man [sic] is purposely ignorant that he may sin more freely, and ignorance of this kind seems rather to make the act more voluntary and more sinful, since it is through the will's intention to sin that he is willing to bear the hurt of ignorance, for the sake of freedom in sinning" (emphasis added).²² Copeland, citing Bernard Lonergan, expresses this kind of motivated irrationality in terms specific to race and gender, "Racist and sexist behaviors are rooted in bias—the more or less conscious choice to suppress the directives of intelligence, to repress conscience, to act in bad faith, that is, to lie to ourselves "in an effort to escape freedom, responsibility, and human being."²³

What might this look like? A prominent plantation owner might have come across a book or news article that explained why racism and slavery are wrong. And that person might have decided that they didn't want to know that information because either they enjoy the pleasure of

²² I-II, Q. 76, Art 4.

²³ M. Shawn Copeland, *Enfleshing Freedom : Body, Race, and Being*, Innovations (Minneapolis: Fortress Press, 2010), Introduction -- Body, race, and being -- Making a body Black : inventing race -- Skin as horizon : theorizing race and racism -- Seeing body -- Being Black -- Black body theology -- Enfleshing freedom -- Objectifying the body -- The subject of freedom -- The freedom of the subject -- enfleshing freedom--return to the clearing -- Marking the body of Jesus, the body of Christ -- Jesus and empire -- The body in the new imperial (dis)order -- Marking the (queer) flesh of Christ -- (Re)marking the flesh of the church -- Turning the subject -- A new anthropological question -- A new anthropological subject -- Solidarity -- Eschatological healing of "the body of broken bones" -- Eucharist, racism, and Black bodies -- Wounding the body of a people -- Terrorizing the body of a people -- Eucharistic solidarity : embodying Christ., 98.

owning human beings, or because they needed their racist attitudes so that they could keep black people working in the field, or they might have feared that knowing this information would require them to suffer the consequences of knowing that they were morally obligated to oppose the racial injustice. This are all instances of is a grave, willful, motivated irrationality that leads to sin.

Negligent Ignorance

Thomas also locates another kind of culpable ignorance that I haven't seen treated in the modern literature: *negligent ignorance*. This sin goes back to Thomas' earlier argument in I-II, Q. 71, A. 5, where he explains sins of omissions. If a person chooses to do something that hinders him from learning important concepts that would help him know that he is obligated to resist racism and its violence. This kind of negligent ignorance can come about in two ways. One, *before* the learning is supposed to happen. For example, a college student enjoys drinking with his friends, stays out late one evening, and is too hung over to attend his Racism, Violence, and Political Action class on the day when this kind of imperative is explained. Two, *during* the time when the action/learning is supposed to happen. The student decides that he would rather go to a bar than go to class. In both cases, the student would be morally culpable for his ignorance of these critical propositions that would help guide him in resisting racism and racial violence.

Motivated irrationality and negligent ignorance, while different, have commonalities. We can reiterate the question guiding our enquiry. If the intellect is naturally oriented to acquire and retain the information necessary for human beings need to move towards flourishing (which Aquinas believes) then why would white folks act in ways that reinforce ignorance? This question brings us to what I believe is the heart of the matter, and where I think that Aquinas and Christian theology have a great deal to offer. Essentially, as the above examples show, *culpable ignorance (in the form of willful, motivated irrationality and negligent ignorance) is preceded by*

a prior affirmation. In one case, the plantation owner and the college student chose to satiate their own carnal desires for wealth and drink rather than obtain the knowledge essential to undo the devastation of racism. In the other case, the plantation owner willfully persisted in his ignorance because he was afraid of the risks inherent in certain kinds of knowledge. For Thomas, sins like racism are preceded by seven prior sins that connect to desires that are essential to the human condition.

Lets' look carefully at one of those sins: greed.

CHAPTER 7: GREED AND THE DISTORTION OF VITAL HUMAN FACULTIES

A full account of the primary causes of our modern world, from a Thomist perspective, would require an account of how Man desired too much of two particular kinds of goods: material and spiritual/psychological. We would have to examine how the human creature comes to desire too much material wealth (greed) and why they come to desire too much intellectual wealth, which typically takes the form of honor or personal excellence (pride). In this dissertation, we will only look at the former, greed.

I want to approach this analysis carefully, and I only want to use Aquinas' analysis to structure the argument and flesh out some of the details. The primary diagnosis of Man's problem will come from those who suffered from his disease: slaves. Rather than passing judgment myself, I will let those who suffered the effects of Man's sinful advantages most directly tell us about the problem. I will let the slaves speak for themselves, which they did far better than I could. Solomon Northup took great encouragement in being able to do that,

Beyond the reach of his inhuman thong, and standing on the soil of the free State where I was born, thanks be to Heaven, I can raise my head once more among men. I can speak of the wrongs I have suffered, and of those who inflicted them, with upraised eyes.¹

Olaudah Equiano, Sojourner Truth, Harriet Jacobs, Solomon Northup, and Fredrick Douglass can diagnose the general nature of Man's sickness far better than I or Thomas. In places where additional explanation will be helpful, we will turn to Thomas Aquinas.

Harriet Jacobs, like Job, cried out to her God for justice! What injustice has been done, though? What sins has she suffered from? It is tempting to group all of the atrocities that

¹ Solomon Northup, *Twelve Years a Slave (Illustrated)*, (Two Pence Books, 2014). 77.

Africans suffered under the general category of injustice or sin, but doing that elides the very real and critical differences between the wide variety of acts that constituted modern-colonial Man's pursuit of freedom, control, and power. Setting out a more complicated taxonomy, however, exposes the treacherous topography of vicious acts, where they originate in the creature, and the *habitus* that makes it so easy for human beings to repeat those acts. Moreover, generating a finer taxonomy of Man's sins enables us to more finely explain the diverse goddesses of the human creature.

That seems to be a strange statement! How does Man's sin hide human goodness? For Thomas, sin is, in its very essence, a lack of goodness. It does not have any positive reality in itself, rather, it arises because some goodness has failed to materialize. This follows from his logic of creation. Since God created the world *ex nihilo* (I, Q. 45, Art. 2) from God's goodness (I, Q. 65, Art. 2), all things are good and ordered to God. Consequently, evil (including the causes and acts of sin) is a negative reality, an absence, a void in the goodness of creation. Thomas writes, "For evil is the absence of the good, which is natural and due to a thing . . . But only good can be a cause; because nothing can be a cause except inasmuch as it is a being, and every being, as such, is good."² And in I, Q.49, Art. 2, he cites Augustine, "God is not the author of evil because He is not the cause of tending to not-being." Inasmuch as we human beings fail in relation to ourselves, others, and God, we tend towards self-negation. So, if we locate the sins of Man, we can work backwards and find the goodness that should fill the emptiness.

GREED: THE ROOT OF COUNTLESS EVILS

In one concise paragraph, Solomon Northup identifies the vicious power of greed. It changes the quality of the human spirit, eradicating kindness and justice. Greed warps the mind, producing an

²I, Q. 49, Art. 1

irrational person unwilling to consider the evidence set before him. And, when the evidence is clear and doesn't suit his purpose, he seeks revenge against the one who brought it. It produces a most unnatural and inhuman creature, one willing to torture another simply for the sake of profit.

. . . to speak truthfully of Edwin Epps would be to say – he is a man in whose heart the quality of kindness or of justice is not found. A rough, rude energy, united with an *uncultivated mind* and an *avaricious spirit*, are his prominent characteristics. He is known as a “nigger breaker,” distinguished for his faculty of subduing the spirit of the slave, and priding himself upon his reputation in this respect, as a jockey boasts of his skill in managing a refractory horse. He looked upon a colored man, not as a human being, responsible to his Creator for the small talent entrusted to him, but as a “chattel personal,” as mere live property, no better, except in value, than his mule or dog. ***When the evidence, clear and indisputable, was laid before him that I was a free man, and as much entitled to my liberty as he*** – when, on the day I left, he was informed that I had a wife and children, as dear to me as his own babes to him, **he only raved and swore, denouncing the law that tore me from him**, and declaring he would find out the man who had forwarded the letter that disclosed the place of my captivity, if there was any virtue or power in money, and would take his life. **He thought of nothing but his loss, and cursed me for having been born free.** He could have stood unmoved and seen the tongues of his poor slaves torn out by the roots – he could have seen them burned to ashes over a slow fire, or gnawed to death by dogs, if it only brought him profit. Such a hard, cruel, unjust man is Edwin Epps.³

GREED'S ESSENCE

Why is greed a sin? Is it a sin because it leads to injustices like Epps'? No, because the vicious actions that Epps directs at his slaves are secondary sentences that arise from a more primal sin: greed. His viciousness insinuates a deeper root, but what is the nature of this root?

Here, Aquinas is helpful. Some things do not exist as ends in themselves. Rather, they exist for some other end, and they are only good in as much as they facilitate progress towards that end, and external goods fall into this category (*ST I-II, Q. 117*). Human beings need material goods to stay alive. They need food, water, clothing, and shelter to sustain our basic bodily functions and to obtain some measure of physical enjoyment from those goods. However, the

³Northup, 77.

measure is always the key! Thomas writes, “. . . man's good in their respect consists in a certain measure, in other words, that man seeks, according to a certain measure, to have external riches, in so far as they are necessary for him to live in keeping with his condition of life.”⁴ Why is that? Why should the human desire and use of material goods be confined to a certain proportion? For one thing, “whatever is directed to an end must needs be commensurate with the end, as, for instance, medicine is commensurate with health. . .”⁵ What a person is sick, they take enough medicine to cure the sickness. If they take too much or too little, the medicine either doesn't work or has adverse effects. There is another reason, which we will consider later, excess desire for material goods leads to other sins.

If we look back at the laws of thermodynamics, we see this principle embedded in the natural order of things. Physical things give off heat so that they can shed excess energy and reduce their own energy level to a normal state that enables them to continue existing. Rudolf Clausius argued, “Everything we know concerning the interchange of heat between two bodies of different temperatures confirms this, for heat everywhere manifests a tendency to equalize existing differences of temperature.”⁶ This equalization in energy difference makes life possible. This is the natural process that human beings go through it every moment. When we eat, our body processes that ingested energy, but it is unable to use all of it and so some of it is ejected in the form of heat. Were we to hold on to all of the energy we took in and not give a portion of it up, we would overheat and die.

GREED'S ACTS

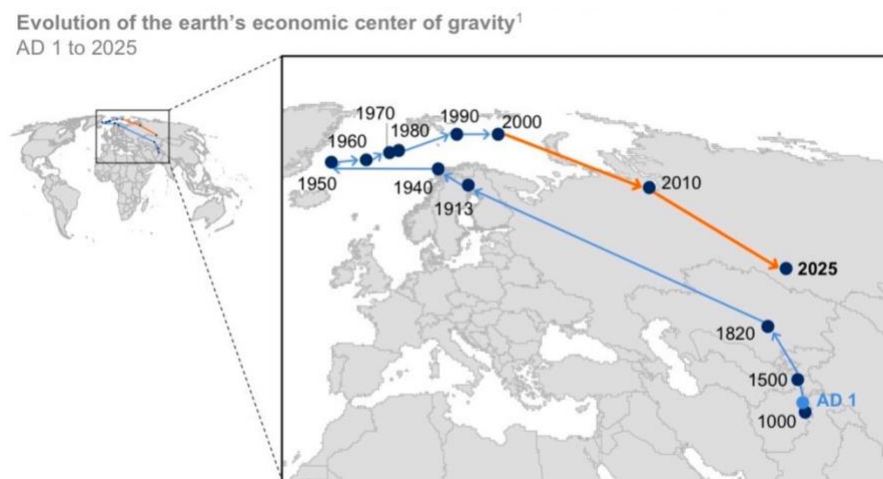
⁴ ST. II-II Q. 118, Art.1

⁵ ST. II-II Q. 118, Art.1

⁶ Clausius, 86.

In what ways did Man commit the sin of greed? First, by *desiring* them too much, “by wishing to acquire or keep them immoderately. This is what is meant by covetousness, which is defined as ‘immoderate love of possessing.’”⁷ Second, “in respect of the *acquisition and keeping* of riches. In this way a man obtains money beyond his due, by stealing or retaining another's property. This is opposed to justice, and in this sense covetousness is mentioned (Ezech. 22: 27): "Her princes in the midst of her are like wolves ravening the prey to shed blood . . . and to run after gains through covetousness." so there are two acts of green. The first is internal whereby the individual becomes obsessed with material goods. The second is external. He reaches out to acquire and then hold onto the goods he has obtained.

To get a sense of exactly how disproportional Man’s accumulation of wealth truth was, and is, consider the following images, both of which present the same reality as the NASA of the earth at night that I included in the introduction,



¹ Economic center of gravity is calculated by weighting locations by GDP in three dimensions and projected to the nearest point on the earth's surface. The surface projection of the center of gravity shifts north over the course of the century, reflecting the fact that in three-dimensional space America and Asia are not only "next" to each other, but also "across" from each other.

Illustration 11⁸

⁷ ST II-II Q.118, Art.1

⁸ SOURCE: <https://www.economist.com/blogs/graphicdetail/2012/06/daily-chart-19>

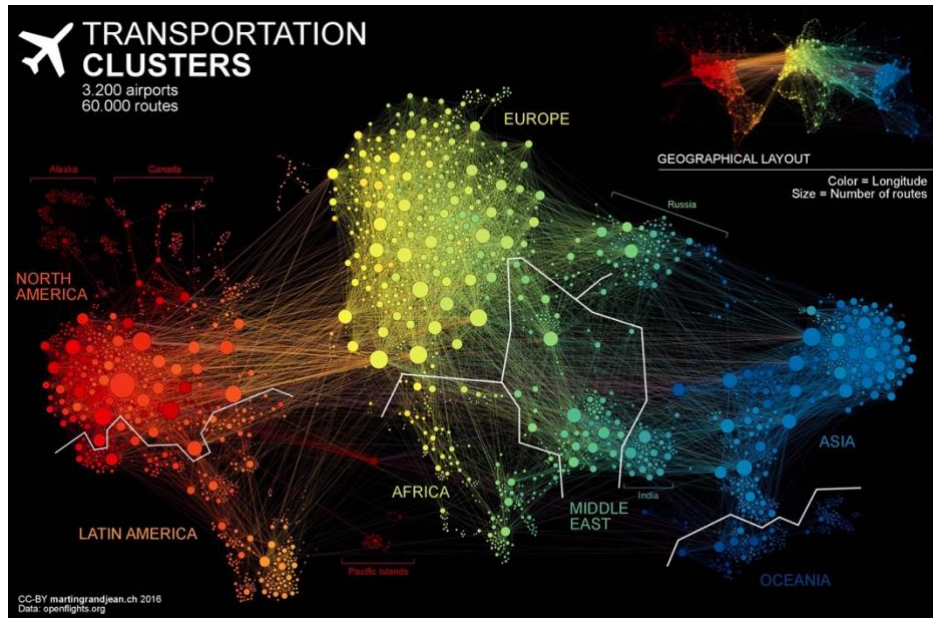


Illustration 12⁹

These two images depict energy distribution throughout the world. The first one depicts global energy distribution, i.e. wealth in the form of money and goods, over time. The second one depicts energy in the form of fuel. It isn't immediately obvious, but this is an exact indicator of wealth. In fact, it is a better indicator of wealth than the concept of wealth or money, as Adrian Bejan argues, “There is an amazingly sharp proportionality between fuel consumption and ‘wealth.’ Fuel consumption is physical (tangible, one can weigh fuel and measure the power in it), while wealth and all the other obvious notions used in economics (utility, the idea of money, being better off) are intangible.”¹⁰ Moreover, according to Bejan,

life is movement, and in order for both to happen, movement requires work spent, work requires [fuel], and [fuel] comes from work-job for the human, fighting and hunting for the carnivorous animal, and constant walking and grazing for the

⁹ SOURCE: <http://www.martingrandjean.ch/connected-world-air-traffic-network/>

¹⁰ Bejan, *The Physics of Life : The Evolution of Everything*, 11.

herbivore. All these words come together to say that life's work. This is the naked physics of life. . .¹¹

Again, Bejan writes, "all living things-animals and trucks-maintain their movement by intercepting streams of energy, food, fuel and water."¹² If life is, indeed, movement, and movement/life requires fuel, then the above images reveal how disproportionately distributed the energy necessary for life has become as a result of Man's greedy feeling, thinking, and acting.

Now, Man himself would argue that these disproportionately distributed energies are a result of Man's work. He applied his body and intellect towards accumulating these energies. But that is simply an intellectual justification for his greed. In saying this, I don't intend to contradict, completely, the idea that one's work should translate into a particular amount of reward. I don't intend to argue against merit-based forms of work. However, when energy distributions become this disproportionate, something else is at work, namely greed. Why? Because Man simply does not need the amount of energy he has accumulated to sustain his life and happiness. This is Thomas' entire point about the sin of greed. Man's energy accumulation is disproportionate to the end to which this particular and is directed: life and happiness.

Even more than that though, this kind of excessive energy accumulation is arguably, in and of itself, unnatural. Nature does not spontaneously distribute energy this way. While energy hierarchies definitely form spontaneously in nature, the natural tendency of all energy to flow,

In physics, the basis of sustainability-and herbs that we all share-is the natural tendency in all things that flow to move toward freedom and change. Power from fuel (food) is the flow that drives all the flows that sustain human life. Power is generated and then flows on the Earth's surface. Power flows with a predictable "design," which means it flows with organization, configuration, rhythm and a morphing geometry. The design of the flow of power grows in an evolutionary

¹¹ Ibid.

¹² Ibid., 43.

matter, in time, as thicker and more efficient streams that serve, empower and liberate humanity over greater territories.¹³

The fact that man, in order to obtain his ultimate objectives, would have to leverage an arsenal of advantages that forced nature to behave unnaturally has been the recurring theme throughout this work. And it was Man's greed that motivated creating and utilizing these advantages.

GREED'S EFFECTS AS A CAPITAL SIN

The problem with greed, like all sin, is that it isn't self-contained. On the contrary, it fuels still other sins, which Olaudah Equiano saw incisively,

. . . I will not suppose that the dealers in slaves are born worse than other men—No; it is the fatality of this mistaken avarice, that it *corrupts the milk of human kindness* and turns it into gall. And, had the pursuits of those men been different, they might have been as generous, as tender-hearted and just, as they are unfeeling, rapacious and cruel. Surely this traffic [precipitated by greed] cannot be good, which spreads like a pestilence, and taints what it touches! which violates that first natural right of mankind, equality and independency, and gives one man a dominion over his fellows which God could never intend!¹⁴

Equiano pierces to the heart of the matter. At its worst, avarice or greed, by its very nature, corrupts the genuine human goodnesses of generosity and justice. He saw, like Thomas, that human beings fundamentally tend towards the good, and vices like greed corrupt the inherent, Creator-given goodness of human nature like a sickness.

For Aquinas, the logic of Equiano's argument is unassailable. Aquinas writes “In whatever things good consists in a due measure, evil must of necessity ensue through excess or deficiency of that” measure.¹⁵ At one point he quotes the prophet Ezekiel to intimate the kinds of evils that ensue, “Her princes in the midst of her are like wolves ravening the prey to shed blood .

¹³ Ibid., 39.

¹⁴ Equiano, 67-68.

¹⁵ *ST II-II Q. 118, Art. 1*

. . and to run after gains through covetousness."¹⁶ As we will see shortly, Aquinas makes the exact same point as Equiano about greed's corrupting effect; it is directly opposed to and always erodes the natural human virtues of justice and generosity.

Aquinas has a particular category for sins like this. He calls them capital sins and vices, and he counts seven of them: greed, gluttony, concupiscence [not limited to sexual lust], pride, envy, sloth, and wrath. These vices and their acts are the first sins, and he calls them capital because "'capital' is derived from head, taken metaphorically for a principle or director of others. In this way a capital vice is one from which other vices arise, chiefly by being their final cause."¹⁷

Significantly, these vices and their actions seek after or avoid certain objects for a specific reason. Capital vices, as habitus, stand half way between a power of the soul and its action. Now, considering that each desire of the soul reacts to things in external world that are appropriate to it, it makes sense that certain objects will activate certain appetites. For example, sugar, as a portion of food, directly engages our sensuous desire to eat. It doesn't directly activate the desire for honor and praise. Nevertheless, because we live in a culture that attaches meaning to the external world, sugar may engage the appetite for praise. It will do this inasmuch as one lives in a culture where possessing and consuming such things symbolizes a certain kind

¹⁶ *ST* II-II Q. 118, Art. 3

¹⁷ *ST* I-II, Q. 84, Art 3.

of social status that is praiseworthy.¹⁸ That social meaning, however, is extrinsic to sugar. We have added it on. The important point is that a direct link exists between the object of desire and the desire itself.

The link between powers of the soul and their proper objects is essential for Thomas because it helps him differentiate the seven capital vices. He writes, “Vices are called capital, whose ends have certain fundamental reasons for moving the appetite; and it is in respect of these fundamental reasons that the capital vices are differentiated.”¹⁹ Essentially, we are drawn to certain external things because they offer us a particular good that fulfills a basic and necessary human desire, and fulfilling that desire is necessary to our vitality. That’s why the desire exists in the first place. Alternatively, we avoid certain object because the pose a threat to our existing and flourishing.

Objects of desire and repulsion can affect us in two ways. One, things can directly move us by presenting us with a good or an evil that we are inclined to pursue or avoid. So, in the case of sugar, I crave it because it provides necessary carbohydrates for my bodily function and it provides a certain satisfaction in eating it. Two, things move the will indirectly or for some

¹⁸ In the 16th, 17th and 18th centuries, serving sugary confections at parties communicated wealth. Queen Elizabeth was notorious for lavishing her parties with ornate and ostentatious “collations” of sugar. Interestingly, there is a connection between the rituals around sugar and the image of “the void” that I am working with. Elizabeth Abbot explains the “void” ritual, “By the seventeenth century, sugar collations led to the ‘void’ that in turn evolved into desert. The ‘void’ was a brief stretch between courses, or after a meal, when servants cleared, or ‘voided,’ the table, and enterprising hosts filled up that void with ornate sugar molds and flower, nut, spice and fruit confections, washed down with sweet wine. . . the void was an entertainment centered on sugar rather than nutrition, and its originality and expense largely defined the host’s status.” When we add to the story the fact that the sugar trade was predicated on slavery, we have a glimpse of the massive void opened up by the “void ritual.” The object of the ritual (sugar) and the means by which the object was obtained (slavery) opens a window into every single cardinal vice and sin that Thomas deals with (C.f. Abbott, 45-46. Also, on sugar and power, c.f. Mintz, 151-86.

¹⁹ *STI-II*, Q. 84, Art. 4.

reason other than that good, which is the case when someone seeks something harmful. In this case, something that is good (sugar) moves the appetite in a natural way. However, I desire and pursue the possession and consumption of sugar excessively, not because of the sugar as such, but because of something else.

We have to understand one key point in order to grasp what Thomas is reaching for. He writes, “. . . vices avoid inordinately the contrary evils.”²⁰ *Not only do we pursue good things because of the thing itself and the pleasure that comes with it, we pursue them because we are trying to avoid the evil that is their opposite.* This is something the Creator has wired into human nature: pursue the things that lead to flourishing and avoid things that diminish it. So, if we put together the two ways that objects engage our appetites, we see that each vice touches on two critical aspects of our existence: pleasure and fear. A few examples,

1. In the case of pride (a good of the soul), one might seek honor and praise obsessively by over-representing one’s entire race for two reasons: 1) we enjoy the direct happiness that comes from it, and 2) we fear shame and disgrace.
2. In the case of food (a good that sustains the individual body), one might eat gluttonously because 1) we enjoy the pleasure of food and 2) we fear starvation.
3. In the case of sex (a good of the species), a master might buy and sexually abuse his slaves to because 1) he enjoys the pleasure of sex and 2) he fears the extinction of the species, nation, or bloodline.
4. In the case of material possessions, Man stole the land of indigenous peoples and enslaved them because 1) he enjoyed the satiety that came from possessing material things, and 2) he feared the poverty and the physical suffering associated with it.

Each capital sin has a particular way of fostering more sin. In the case greed, where the greedy person acquires and possesses too much, follow up sins result from increased agency, “Through riches a man acquires the ability to commit every sin and to fulfill his desire for every sin, since

²⁰ Ibid.

money can help a man to have every sort of temporal good.”²¹ In this instance, the goods possessed are means to an end.

There is a second, more dangerous, way that greed leads to sin. Vices can lead to other vices not as a means to an end, but in relationship to the end itself “because when an end is very desirable, the result is that through desire thereof man sets about doing many things either good or evil.”²² Material possessions are particularly vicious in this respect because they promise to fulfill the ultimate end of human life: happiness. For human beings, the “most desirable end is happiness or felicity, which is the last end of human life,” and a central aspect of happiness is its “self-sufficing” nature.²³ Things that make us happy, genuinely happy, produce rest and contentment, “happiness is the perfect good, which lulls the appetite altogether; else it would not be the last end, if something yet remained to be desired.” Riches impart a feeling of self-sufficiency, and wealth (i.e. energy that facilitates self-movement) offers “great promise of self-sufficiency, as Boethius says (De Consol. iii): the reason of which, according to the Philosopher (Ethic. v, 5), is that we ‘use money in token of taking possession of something.’” Wealth enables us to sustain ourselves, to move at will. It gives the illusion of self-sustainability and *freedom*. This points all the way back to the beginning of Chapter 1; freedom was one of Man's fundamental objectives, and now Thomas has explained why Man should desire that so deeply.

Even if wealth can't ultimately provide complete satiety, why should we stop wanting and accumulating? Besides the fact that too much of a thing is disproportionate to what the thing is for, if we desire one thing too much, then there is something else we don't desire enough. Since human beings are ultimately pursuing happiness and complete desire fulfillment, it only makes

²¹ STI-II Q. 84, Art. 1

²² ST II-II Q.118, Art. 7

²³ Ibid.

sense that we direct our attention to the thing that will fulfill us, ultimately and completely, and in Christian theology, that ultimate happiness lies in God,

In what lies the Good: happiness in God: For humans to rest content with any created good is not possible, for they can be happy only with complete good which satisfies their desire altogether: they would not have reached their ultimate end were there something still remaining to be desired. The object of the will, that is the human appetite, is the Good without reserve, just as the object of the mind is the True without reserve. Clearly, then, nothing can satisfy the human will except such goodness, which is found, not in anything created, but in God alone. Everything created is a derivative good.²⁴

The ultimate problem with greed, then, is idolatry, which is to say, turning towards oneself and away from God and neighbor.

SINS AND VICES THAT FLOW OUT OF GREED

If greed involves holding onto too many material goods, then it habituates the mind to think a certain way about self and other. Namely, the greedy man becomes excessively concerned about what he possesses, and this produces “‘insensibility to mercy,’ because, to wit, a man's heart is not softened by mercy to assist the needy with his riches.”²⁵ Certainly, the idea of mercy and giving to the needy causes concern for some because merciful giving may be nothing more than an action intended to assuage an unsettled conscience. Or, it can be a means for a wealthy individual to demonstrate their superiority over others and in that demonstration gain some sort of prideful satisfaction. This, however, is only a problem if one detaches Thomas’ concept of mercy from his larger theological framework that problem problematizes these kinds of charitable giving.

But greed also operates through excessive receiving. The greedy man continually obsesses not only about how much he already has but also how much he is receiving, and in this

²⁴ *ST I-II Q.2, Art.8*

²⁵ *ST II-II Q. 118, Art. 8*

way, greed “gives rise to ‘restlessness,’ by hindering man with excessive anxiety and care, for ‘a covetous man shall not be satisfied with money’ (Eccles. 5: 9).”²⁶

More importantly for our considerations, greed produces sin through “the execution [effect].”²⁷ In this way the covetous man, in acquiring other people's goods, sometimes employs force, which pertains to violence. There is no need to extensively recount Man’s violence here; the reader is quite aware of it. Although, one point deserves to be made which Equiano foregrounds when he recalls the battles he witnessed in his own country before he was enslaved, “From what I can recollect of these battles, they appear to have been irruptions of one little state or district on the other, to obtain prisoners or booty. Perhaps they were incited to this by those traders who brought the European goods I mentioned amongst us. Such a mode of obtaining slaves in Africa is common; and I believe more are procured this way, and by kidnapping, than any other.”²⁸ Not only does the greed of Man provoke him to vicious acts of violence, it also incites greed in others, and, through that greed, more violence.

Sometimes greed caused Man to deceive his neighbor, and if he deceived the neighbor through words, Thomas argued, then He committed the sin of lying or perjury, in the case of legal falsehood.²⁹ If he also acted on these falsehoods, that he committed “fraud.”³⁰ Sojourner Truth’s story provides a moving example, not only of Man's greed, lying, and fraud, but also the devastating effects they have on the physical and psychological flourishing of other human beings.

²⁶ *ST II-II Q. 118, Art. 8*

²⁷ *ST II-II Q. 118, Art. 8*

²⁸ Equiano, 12-13.

²⁹ *ST II-II Q. 118, Art. 8*

³⁰ *ST II-II Q. 118, Art. 8*

After acquiring her freedom, Sojourner earned enough money to provide for herself, and a local banker persuaded her to invest all of her excess earnings, which she did. Ultimately, the investment failed and “her little property was merged in the general ruin-or went to enrich those who profited by the loss of others, if any such there were.”³¹ The banker had assured her that she would earn enough money to cover all of her expenses, even up to her death, and so she “became perfectly careless on the subject-asking for no interest when she drew her money from the bank, and taking no account of the sum she placed in the fund.” She lost almost everything she had, and as she reflects on this great sin, she asked,

. . . why it was that, for all her unwearied labors, she had nothing to show; why it was that others, with much less care and labor, could hoard up treasures for themselves and children? She became more and more convinced, as she reasoned, that every thing she had undertaken in the city of New York had finally proved a failure; and where her hopes had been raised the highest, there she felt the failure had been the greatest, and the disappointment most severe. After turning it in her mind for some time, she came to the conclusion, that she had been taking part in a great drama, which was, in itself, but one great system of robbery and wrong. *'Yes,' she said, 'the rich rob the poor, and the poor rob one another.'*

These reflections and convictions gave rise to a sudden revulsion of feeling in the heart of Isabella [Sojourner's birth name], and she began to look upon money and property with great indifference, if not contempt-being at that time unable, probably, to discern any difference between a miserly grasping at and hoarding of money and means, and a true use of the good things of this life for one's own comfort, and the relief of such as she might be enabled to befriend and assist. One thing she was sure of-that the precepts, 'Do unto others as ye would that others should do unto you,' 'Love your neighbor as yourself,' and so forth, were maxims that had been but little thought of by herself, or practised by those about her.³²

Unsurprisingly, Man's lying and fraud born of greed distorted Sojourners relationship to money.

Namely, it produced a vice in her, greed's opposite: illiberality or prodigality. For Thomas, vices

³¹ Sojourner; Gilbert Truth, Olive, *The Narrative of Sojourner Truth* (Kindle Edition, 2011), 73-74.

³² *Ibid.*

are of two kinds: excess and deficiency, and “unlike the greedy person who cares too much about receiving and retaining money, the prodigal doesn't care enough, and, therefore, rather than retaining and acquiring enough or too much, she retains and acquires too little.”³³ The point, as always, for Thomas, proportionality.

THE DEHUMANIZING EFFECTS OF GREED

Greed does more than lead to violence, lying, and fraud. It wounds the nature of the greedy person. Remember, for Thomas, the natural inclination of human faculties tends towards actions that lead to flourishing. However, human beings, like all things, have a capacity to change, but because we are creatures that have within themselves a principle of movement the specific way that we change is critical to how sin affects us.

Thomas derives his principles of change from Aristotelian philosophy. In considering the nature of how individual things change, Aristotle explains that all existing things capable of change come to be and pass away into their corresponding opposites, like that which is musical comes out of non-musical and the musical, when it ceases to be, disappears into the non-musical.³⁴ In the case of coming to be, there are two ways in which a thing comes to be. First, thing XY comes into being simply, as the thing that it is by taking on shape, by growing, by diminishing, by putting together, or by alteration. Second, this simple thing XY that has come to exist simply becomes some-thing XY_{a,b,c,d} by virtue of its acting upon and being acted upon by other things. In this process of coming to be some-thing, the simple thing XY changes, in a sense, from one thing into its corresponding opposite or some range of the corresponding

³³ Brian Davies, *Thomas Aquinas's Summa Theologiae : A Guide and Commentary* (London ; New York: Oxford University Press, 2014), 410.

³⁴ Aristotle, "Physics," in *The Complete Works of Aristotle : The Revised Oxford Translation*, ed. Jonathan Barnes (Princeton, N.J.: Princeton University Press, 1984). Book I, Ch. 4

opposite. $XY_{\text{not-a,b,c,d}}$ becomes $XY_{\text{a,b,c,d}}$ or somewhere within a range between $XY_{\text{not-a,b,c,d}}$ and $XY_{\text{a,b,c,d}}$ ³⁵. Although, something always persists throughout the process of change: XY .

In the case of human persons, they come into existence simply as a particular individual with a combination of individuated matter, individuated soul, and the faculties that are appropriate accidents to that matter and soul combination.³⁶ Furthermore, as subsistent beings that have within themselves a principle of movement, they are subject to change/becoming (within the range of possibilities pertinent to the nature of their being—they can't change into birds) *by acting upon and being acted upon by things outside themselves*. To state this more fully, the material aspect of human beings and the powers of their soul are open to and receptive to change through acting on and being acted on by the natural world, family, communities, and the larger social structures of nations, corporations. Through these relationships, the human being who comes to be simply, becomes something more or less.

Consequently, the more we exercise a faculty in a virtuous way, the more we are inclined to exercise it in that way. As we have already established, the erosion of virtue simply means the erosion of our inclination to act in ways that move us to our two-fold end. Since harmful and vicious acts inscribe themselves in us in a way that leads to repeating those vicious acts, the

³⁵ Ibid. Book I, Ch. 4

³⁶ On this point, Aquinas is clear, we don't all share some single human nature without individuation. He writes, "However, since the principle of individuation is matter, from this it may appear to follow that the essence, which comprises both matter and form, is only particular and not universal, from which it would further follow that universals would not have definitions, if an essence is something that the definition signifies. And for this reason we should know that matter considered in just any way is not the principle of individuation, but only designated matter is. And by designated matter I mean matter considered under determinate dimensions. This matter is not included in the definition of man as such, but it would be included in Socrates' definition, if Socrates had a definition. The definition of man, on the other hand, includes non-designated matter; for the definition of man does not include this bone or this flesh, but bones and flesh absolutely, which are the non-designated matter of man" (ibid., 231.).

diminution of nature is then two-fold. Not only is the internal harmony of our soul's powers disrupted by habituating them to act in destructive ways, but our external relationships with God, others and the world are also thrown into disharmony and chaos because those are contingent upon our internal harmony.³⁷

In regard to our internal harmony and the effects of sin, Aquinas points to five principles wounds inflicted by sin. The first wound is that of our first parents, whose sin precipitated the removal of original justice and the attendant removal of harmony among the soul's powers individually and collectively. Through perpetual sinning, we continue to inflict damage on the powers of our soul. We continue to diminish their inclination to the good and reinforce their inclination to the bad. Looking specifically at each power, reason, which naturally seeks truth, suffers the wound of ignorance. The will, which naturally seeks the good, suffers the wound of malice. The irascible sensuous appetite, which naturally seeks the arduous so that we can overcome obstacles to our flourishing, suffers the wound of weakness. The concupiscible sense appetite, which seeks the delectable, is the site where greed does its work, and it suffers the wound of concupiscence, or an increasingly voracious desire for material possessions.

THE DEADLY NATURE OF GREED

Some forms of greed affect the creature so badly that they mortally wound its capacities to relate to God. Thomas describes those forms of mortal sin,

.A sin is called mortal by way of similarity to a disease that is called mortal because, as has been explained, it causes an irreparable defect through the loss of some principle. But as was explained above, the principle of the spiritual life, i.e., life in accord with virtue, is the ordering toward the ultimate end. If this is lost, then, as was explained above, the defect cannot be repaired by means of any

³⁷ There is a third possible effect that Thomas rejects, a diminution of the soul and its powers.

intrinsic principle; instead, it can be repaired only by God's power. . . . And so sins of this sort are called mortal in the sense of being irreparable.³⁸

When Thomas writes, "the principles of the spiritual life," he means charity (or love) which is the principle that directs us towards our final end, which is, ultimately, God., secondarily, our neighbor, and thirdly, to ourselves. Mortal sins, then, are mortal because direct the creature away from God, and once the creature has turned away from God, there is no cure for such an illness. So, mortal sins are, in essence, "a root and branch rejection of the goodness of God, a refusal to abide by the goodness of God that sets the rules of the "game" of virtue."³⁹

Not all greed, though, rises to this level, but certain kinds do. Theft and robbery,⁴⁰ for example, are unjust keeping or taking of another person's property, and this wounds the greedy person mortally because it is, by its very nature opposed to charity, which "consists principally in the love of God, and secondarily in the love of our neighbor, which is shown in our wishing and doing him well. But theft is a means of doing harm to our neighbor in his belongings; and if men were to rob one another habitually, human society would be undone. Therefore theft, as being opposed to charity, is a mortal sin."

Theft, though, is an act initiated by greed, but what of greeds internal act? Is the desire for wealth mortal to the spirit? Again, Thomas returns to charity, ". . . if the love of riches becomes so great as to be preferred to charity, in such wise that a man, through love of riches, fear not to act counter to the love of God and his neighbor, covetousness [greed] will then be a mortal sin."

³⁸ *ST I-II Q. 88, Art. 1*

³⁹ Davies, 211.

⁴⁰ Thomas makes a distinction between the two, "We can distinguish between 'theft' (*furtum*) and 'robbery' (*rapina*) since we can distinguish between stealing from someone surreptitiously and doing so by violence (2a2ae,66,3 and 4). Both theft and robbery are sinful and contrary to justice and charity since they amount to taking what belongs to another against that person's will and against God's revealed will. . ." (*ibid.*, 254.

Fundamentally, Greed represents an absence of a goodness that God gifted the creature with. It is a negation of the Creator's intent for the creature, and to act out of greed or inspire greed in another is a grave vice. But that is obvious, considering the consequences of Man's greed. Equiano's narration of conditions on the slave ship illuminates how viciously greed corrupts the human capacity to love one's neighbor and treat them justly,

The stench of the hold while we were on the coast was so intolerably loathsome, that it was dangerous to remain there for any time, and some of us had been permitted to stay on the deck for the fresh air; but now that the whole ship's cargo were confined together, it became absolutely pestilential. The closeness of the place, and the heat of the climate, added to the number in the ship, which was so crowded that each had scarcely room to turn himself, almost suffocated us. This produced copious perspirations, so that the air soon became unfit for respiration, from a variety of loathsome smells, and brought on a sickness among the slaves, of which many died, thus falling victims to the improvident avarice, as I may call it, of their purchasers.⁴¹

The sickness of this scene is twofold. It is, in the first place, the physical suffering of the slave's bodies that were not suited to such conditions. Man's greed compelled him to violate the principles of nature and to treat the slaves unnaturally, that is, in a manner that doesn't accord with their human nature. And then there is the spiritual sickness, the sickness unto death, and on this point, we should recall Equiano's diagnosis at the beginning of this section,

I will not suppose that the dealers in slaves are born worse than other men—No; it is the fatality of this mistaken avarice, that it *corrupts the milk of human kindness* and turns it into gall. And, had the pursuits of those men been different, they might have been as generous, as tender-hearted and just, as they are unfeeling, rapacious and cruel.⁴²

It is a miracle that Equiano could see any goodness in human nature, especially the nature of those who treated him and his kinfolds with the coolest hatred imaginable. One would expect

⁴¹ Equiano, 27-28.

⁴² Ibid., 67-68.

someone like Thomas Aquinas to be able to see and argue that human beings possessed, at their very core, an innate goodness (or virtue) that the Creator instilled in them at their creation. After all, he never experiences the kind of injustice and suffering that men and women like Equiano, Sojourner Truth, and Harriet Jacobs experienced. Certainly, he heard about it and read about it. He was a student of history, scripture, and human nature, but the gap between the concept and the embodied reality is infinite. It is a miracle, though, that the latter could see the same thing as Thomas given their radically disparate times and social locations. This is, perhaps, support for Thomas' argument that sins against charity are mortal and can only be cured by the source of charity! Perhaps greed isn't, in the final analysis, always a sickness unto death (John 11: 4). Perhaps there is a cure! This was certainly Equiano's experience at his conversion,

The amazing things of that hour can never be told—it was joy in the Holy Ghost! I felt an astonishing change; the burden of sin, the gaping jaws of hell, and the fears of death, that weighed me down before, now lost their horror; indeed I thought death would now be the best earthly friend I ever had. Such were my grief and joy as I believe are seldom experienced.⁴³

⁴³ Ibid., 125.

PART IV: HEALING THE RUPTURE

CHAPTER 8: RE-IMAGINING THE NATURE AND PURPOSE OF HUMAN LIFE: A THEOLOGICAL ANTHROPOLOGY

If Man can, intentionally or unintentionally, twist theology in a way that turns it into an advantage for His pursuit of freedom, control, and power, can it work in the other direction? This is an especially pertinent question considering the way that Man utilized theology to funnel working-class people into dehumanizing forms of labor intended to expand his control over natural and social processes, but the savage theological performance that attempted, yet never completely succeeded, to subjugate slaved far surpasses it. Shawn Copeland laments,

. . . many ministers advocated a Christianity that sought to unmake the God-image in Africans, to render them servile, docile, and acquiescent to a divine ordination of their subjugation to whites. How sly to detach the New Testament admonition from its *Sitz im Leben* and to inscribe it on to the circumstances of the plantation: "slaves, obey your earthly masters in everything, not only while being watched and in order to please him, but wholeheartedly, fearing the Lord. Whatever your task, put yourselves into it, as done for the Lord and not for your masters, since you know that from the Lord you will receive the inheritance as your reward; you serve the Lord Christ" (Col. 3:22-24).¹

This kind of distorted theological vision permeated Christian thought, and, more powerfully, Christian practice. It was a pseudo-theological vision that surpassed the unfaithfulness of the premillennialist eschatology we discussed in chapter four because it violated the second most important commandment, love your neighbor as yourself. Pre-millennial eschatology, even though it sets the conditions for diminished life, still enfolds the worker into the human body, but white supremacist pseudo-theology irrevocably turned a genuine neighbor into a non-neighbor, at least in relationship to the emotional and intellectual habituations of white people. In doing

¹ Copeland, *Enfleshing Freedom : Body, Race, and Being*, 24.

this, it transformed loving passions into hate. There is no greater sin. But can theology undo that? Can a different theological anthropology set a foundation for just relationships?

THE PROBLEM WITH ANTHROPOLOGY

A central point of tension in theological anthropology focuses on whether an ontological, essentialist interpretation of human nature provides positive resources for theological reflection, or whether such a project is doomed, from the very beginning, to devolve into a system of ideological propositions that underwrite projects of domination, subjugation, and murder.

The concern is not without validity! That has been the point of everything in my argument up to now. Europeans idolized and totalize their essentialist accounts of human nature, which was anchored on the principles of rationality, race, and gender, and then they interpreted all of reality through those ideas, and they imposed that interpretation on the world through physical violence justified by the very anthropological vision they themselves constructed.

Walter Dignolo's summation of Anibal Quijano's concept, the *colonial matrix of power*, elucidates the institutional and epistemic structures that facilitated Man's conquest of the world and the role that anthropological knowledge played in gaining and maintaining that control.

Quijano argues that the colonial matrix of power develops within four main domains:

- 1 Appropriation of land and exploitation of labor
- 2 Control of authority
- 3 Control of gender and sexuality
- 4 Control of subjectivity and knowledge.²

This ideological, discursive and institutional matrix facilitated Man's increasing dominion of the world's land, people, material resources, culture, religion, and subjectivities (i.e. every conceivable existent thing in the world), because the matrix operates in a perpetual feedback loop, with each node in the matrix reinforcing the other. Authorities who claimed for themselves

²Mignolo, 477-78.

the exclusive capacity to define truths about humanness and how society should operate constructed truth in a way that justified land appropriation and labor exploitation, and anthropological truth was especially effective in this respect.

Specifically, Emmanuel Kant's anthropological schema was a key formula in the equation that defined the nature of humanness. Emmanuel Chukwudi Eze's programmatic essay "The Color of Reason: The Idea of 'Race' in Kant's Anthropology" reminds us that Kant was as much an anthropologist as he was a philosopher, teaching classes in geography and anthropology for forty years.³ Within Kant's anthropology, rationality determined human beings to live sociably and continually work to "cultivate himself, civilize himself, and apply himself to a moral purpose by the arts and sciences." Cultivation, civility, and moral purpose all took *distinctly European form*, in Kant's mind, and his self-congratulatory interpretation generated a very real, although utterly false, conviction that Europe and its men were the apex of human progress. That man is destined to cultivate civility and moral purpose is synonymous with living as a productive, conformist, European citizen subject.⁴ This was, unequivocally, a process of *becoming*, "Humans, in the state of nature, are simply *animal rationale*; they have to make of themselves *rationale animal*" and Man, it was presumed, had advanced along the path farther than anyone else in the world and was, therefore, obligated to bring everyone else along—for their own good. Conquest, rather than being unjust is, in fact, merciful and good because the crusader, the conquistadores, the missionary, the developer, is the human advancing the good of humanity.

Man measured "progress" and humanness according to His intellectual penetration of natural processes and the technological advances that His penetration facilitated. Advancement

³ Eze, 103.

⁴ *Ibid.*, 112.

meant, in great measure, scientific discovery, and this illuminates the degree to which thinkers like Bacon, Hobbes, and Descartes reduced human cognition to a very narrow range: mathematical reason calculative reason that is based on mathematical formulas and processes. For them, reason= calculations of the world's natural processes that can be turned into utilizable data, and everything that falls outside the utilitarian was discarded. As Bacon argued, "The immense regions of the West Indies [would have] never been discovered' if the explorers had relied on poetry, painting, or music."⁵ Eze critiques this reductionism, "When we take pleasures or displeasures (e.g., in poetry), or speaks in order to rationally stipulate permissible and impermissible in morality, it is difficult to see exactly how the thought in this kind of experience is merely a process of addition or subtraction. How is it possible to reduce aesthetic experience or moral feelings to mathematical calculation?"⁶

What goal did the reduction of knowledge content serve? For one, it channeled an immense amount of intellectual energy into scientific and technological explorations, but that tells less than half the story. Anthropologically, it served as the boundary marker between human and non-human, which meant that it also served as the boundary marker between slave owner and slave. Kant writes, "The race of the Negros, one could say, is completely the opposite of the Americans; they are full of affect and passion, very lively, talkative and vain. They can be educated by only as servants (slaves), that is if they allow themselves to be trained."⁷

⁵ Ibid.

⁶ Emmanuel Chukwudi Eze and ebrary Inc., *On Reason Rationality in a World of Cultural Conflict and Racism*, (Durham: Duke University Press,, 2008), <http://site.ebrary.com/lib/dukelibraries/Doc?id=10243671>. Anibal Quijano also critiques the reductive, instrumentalizing of reason. He writes, "It is the instrumentalization of the reasons for power, of colonial power in the first place, which produced distorted paradigms of knowledge and spoiled the liberating promises of modernity." Anibal Quijano, "Coloniality and Modernity/Rationality," *Cultural Studies* 21, no. 2 (2007): 177.

⁷ Eze, 116.

Similarly, essentialist accounts of human nature privileged men over women by attributing reason (again imagined in European enlightenment terms) to the male sex and emotion to females. Attached to that was the notion that carefully honed reasoning capacities were prerequisites for engagement in public life. David Kelsey illuminates this point, “The analysis holds that women have been oppressed because dominant anthropologies, both in theology and in patriarchal culture generally, entail that it is essential to being a woman to be inferior to males in regard to a broad array of powers [e.g. reason] and behavior.” Consequently, women were generally relegated to the domestic sphere and excluded from decision-making positions within communities. The exclusion of females from decision making processes extended the power of male decision makers who could adopt patriarchal policies that reinforcement controlled social systems.

Technical, utilizable knowledge, race, gender, and capital (the colonial matrix of power) expedited shipbuilding, global circumnavigation, capturing Africans and putting them to work on stolen land. Knowledge, capital, and race equipped planters with the information and power needed to structure plantation space efficiently and execute the planting, harvesting, and processing of crops in the most profitable manner. Knowledge, capital, and race facilitated the marshaling, deploying, and sustaining of armies for the purposes of stealing land, protecting the produce of that land once it had been harvested, and ensuring its safe transport back to the homeland. Increased accumulation of land and labor, justified by man's interpretation of humanness and executed through his technological advances, reinforced His ability to retain control of truth constructing processes which determined the nature of truth and goodness itself.

THE VALUE OF MAKING HUMAN BEINGS INTELLIGIBLE AS HUMAN BEINGS

What now then? As St. Paul might ask. Should we stop speaking about human nature? No! Is there any value found in such discourse? Is it even necessary? Yes! I believe that it is necessary

and good. Former slaves, in their narratives, spoke of a general, recognizable human nature that is shared by all people, and they often anchored their arguments about the injustice of slavery on that shared nature. This is precisely the argument that Olaudah Equiano made, “Why do you use those instruments of torture? Are they fit to be applied by one rational being to another? *And are ye not struck with shame and mortification, to see the partakers of your nature reduced so low?*”⁸ Not only did slaves speak of a shared human nature, they also argued, with incisive logic intended to persuade their readers, that this nature is, as Aquinas suggested, disposed to act in particular ways. Again, Equiano narrates,

. . . I have seen a negro man staked to the ground, and cut most shockingly, and then his ears cut off bit by bit, because he had been connected with a white woman who was a common prostitute: as if it were no crime in the whites to rob an innocent African girl of her virtue; but most heinous in a black man only to gratify a passion of nature, where the temptation was offered by one of a different colour, though the most abandoned woman of her species. Another negro man was half hanged, and then burnt, for attempting to poison a cruel overseer. Thus by repeated cruelties are the wretched first urged to despair, and then murdered, because they still retain so much of human nature about them as to wish to put an end to their misery, and retaliate on their tyrants!⁹

It is this same human nature, disposed to certain kinds of action, that Harriet A. Jacobs is foregrounding in her memoir, *Incidents in the Life of a Slave Girl*, when she reasons with her readers and explains why she responded, emotionally, in a particular way to the romantic advances of a white man. She explains, "So much attention from a superior person was, of course, flattering; for human nature is the same in all. I also felt grateful for his sympathy, and encouraged by his kind words. It seemed to me a great thing to have such a friend."¹⁰

⁸ Equiano, 68.

⁹ *Ibid.*, 63.

¹⁰ Harriet Jacobs, *Incidents in the Life of a Slave Girl*, Kindle ed. (New York, NY: Diversion Books, 2014), 80.

Equiano and Jacobs both foreground the essential point about human nature, even though vice filled, vicious human beings relentlessly assaulted their humanness, their nature still retained an inclination towards a particular end: goodness. In Equiano's case, the slave's nature impels them to the goodness of life and freedom; it naturally resists the evil of subjugation and abuse. In the case of Jacobs, her human nature inclines her to the goods of healthy self-affirmation, hope, and intimacy, even if the object from which she hopes to attain those things is an unreliable, lustful white man.

If we were to describe this benefit in more Thomistic terms, we would say that specifying "human nature" accounts for the fact that human beings are intelligible as a specific kind of being that is in different from (not necessarily better than) other kinds of existent beings and who therefore deserve the kind of treatment that is due to all beings constituted by that nature.

The accounts of Equiano and Jacobs wouldn't surprise Thomas. For him, an essence (or nature) makes a thing intelligible to intelligent beings, and it also enables intelligent beings to categorize a thing with a particular nature into the proper genus and species. For example, humanity¹¹ is a collection of beings who possess the essence we call human, and when a particular human being performs those actions proper to its essence (human), she is recognizable as a member of the human species, all of which possess the essence of humans (humanity)--

¹¹ It is worth noting that Aquinas clearly defines the universal concept "humanity" as an abstraction that exists in the mind. Thus our apprehension of "humanity" in an individual, like a slave, is an intellectual abstraction that proceeds from the nature (inclusively conceived) inherent to all beings we call human and which exists in the slave. Clearly, Aquinas is not a constructivist. Unlike constructivists, he contends that the intellectual abstraction is correlated to an existent nature that resides in individuals and gives linguistic expression to that nature.

critical footnote here.¹² Thomas Matthias Scheeben deepens Thomas' analysis, defining a nature as an "essential, vital form" that can be communicated through the process of begetting or generating, and thus determines the "essential, vital principle," or that which gives life and movement to the thing.¹³ He emphasize an important point, a "nature" is a "foundation or principle of life and movement toward [a beings] end and within its sphere."¹⁴ Nature is thus the principle of life and the activity of that life that is ordered to its proper end. In short, "the essence of things with reference to their activity."¹⁵ Aquinas affirms this proposition in his treatment of human appetites. He argues that a natural appetite is one that is given by the Creator and orders the creature to its end. "Natural appetite is nothing other than the ordination of things to their end through their own nature."¹⁶

These concepts serve a critical role in attempts to address human injustice because without a universally applicable account of what it means to be and act as a human, it is impossible to universally locate the nature of injustice itself. Putting chains around a grapefruit

¹² c.f. Aquinas, *Being and Essence*. There is undoubtedly a great danger for abuse in this line of reasoning, especially in regards to the activities that properly belong to and arise from human nature. This is exactly the point where the colonialists found justification for denying human status to Indigenous peoples. Their political, economic, and religious customs did not bear the mark of "human activity" as they defined it. The problem, however, is not the concept of human nature in general, or even the fact that human nature gives rise to certain activities that accord with that nature. The problem, rather, is how Christians in the late middle ages, and then Renaissance and Enlightenment Europeans in the 16th, 17th, and 18th century defined "proper" activities. They conflated their local cultural customs with the universal mark of proper activities that accord with human nature. Unless one takes the position that all human beings are irrevocably corrupted by a will to power and dominance--a position that in itself contains a theory of human nature--then we can argue that the colonialist vision is only one possible conclusion of theorizing human nature. There are, however, others possible conclusions, which we will discuss later.

¹³ Matthias Joseph Scheeben, *Nature and Grace* (St. Louis,: B. Herder Book Co., 1954), 34.

¹⁴ *Ibid.*

¹⁵ *Ibid.*, 25.

¹⁶ Lawrence Feingold, *The Natural Desire to See God According to St. Thomas Aquinas* (Sapient Press, 2010), 410.

and then putting it in the bottom of the ship doesn't constitute injustice. However, treating a human being that way most certainly does, precisely because human beings possess a certain kind of nature which is oriented towards a specific end in accord with that nature and leads to certain acts appropriate to that nature that we recognize them as human and can, therefore, demand that they deserve a particular kind of treatment rather than another. It is only by positing a shared human nature that we can say that this particular human being should not be enslaved. Why should she not be enslaved? Because she possesses the nature common to all human beings, and slavery is a condition that is discordant with human nature as human nature in that it inhibits the proper exercise of the powers and faculties that arise from that nature and move the human person towards its proper end.

What happens when we narrowly define that nature? What happens when someone finds outside of that nature? That is, I think, easier to deal with than we are generally inclined to believe today. We listen intently. We look carefully. Only an irrational creature, whose mind had been distorted by greed and pride could have done what slave holders did. This is, I believe, Equiano and Jacob's point.

To provide an example that supplements Equiano and Jacobs, one could argue with Reinhold Neibuhr or Shawn Copeland that the desire for freedom is an essential motivating principle of human life and the activity of that life, and that freedom is essential to the attainment of that end. From here we have grounds to condemn any unjust restriction of human freedom

because it retards human progress towards its proper end.¹⁷ This condemnation is possible on a universal level precisely because all human beings share the same nature that desires and necessitates freedom.

Furthermore, a robust definition of human nature provides the resources necessary to argue against oppression, not only on the grounds that it violates the nature of those subject to oppression, but also on the grounds that it violates the nature of the oppressor. If, for example, we argue that 1) human beings are ordered to God by a motivating principle of life (nature), 2) that the power of that principle orders human beings towards activities that advance them towards their proper end (God relatedness), and 3) that entering into relationships of reciprocity, mutual affection, and love with all other creatures that share their nature is one activity in accord with and advantageous to that motivating principle and end, then acting as an oppressor is fundamentally and universally unnatural because it violates the principle of human life (God-relatedness) and the activity necessary to fulfill the telos (relations based on reciprocity and love) that corresponds to its vital principle. In this frame of reasoning, the problem of "human nature" as a concept actually transforms into an asset in the pursuit of justice.

Sylvia Wynter supports the point. In "Unsettling the Coloniality of Being/Power/Truth/Freedom." She argues (similarly to Foucault) that humans are languaging animals that create semantic systems or "adaptive truth-for" regimes that determine subjective

¹⁷ Cf. Reinhold Niebuhr, *The Nature and Destiny of Man : A Christian Interpretation*, 1st ed., 2 vols., Library of Theological Ethics (Louisville, Ky.: Westminster John Knox Press, 1996), 17. Two points here. One, the example of a desire for freedom, is an analogy to the human desire for God, and I am trying to establish a point of contact with liberal Protestant thought. Second, this argument is not without its challenges. The definition of "unjust restriction" can be distorted. For example, Africans were enslaved "justly," or so the argument goes, on the grounds that they were less than human. They did not have a right to freedom because they were by nature incapable of using their freedom rightly. Furthermore, the concept of freedom is equally subject to distortion, but the possibility of these concepts being misused does not justify rejecting them.

“mental horizons” which motivate/demotivate behavior and, consequently, generate and perpetuate hierarchical social structures that produce advantage and disadvantage.¹⁸ Central to adaptive truth-for regimes are discursively invented genres of humanness that generate unique intersubjective relations.

Central to Wynter’s thesis is the idea that human beings (unlike genetically determined biological organisms) develop their own “culture-specific programs by which [their] human behaviors—cognizing, affective, and actional” are “rule-governed and lawfully regulated.”¹⁹ And also, she argues that human culture-specific linguistic programs are determined by and adapted according to individual and collective “behavior-orienting supraordinate goals and their sets of subgoals²⁰” Human beings develop discursive patterns and social structures intended to achieve some kind of perceived good, a goal that they believe maximizes flourishing for that group.

Wynter is cognizant of Europe’s anthropological history. She points to three historical iterations of European defined humanness, each of which created a binary relationship between human beings that served the supraordinate goals of MAN. The medieval theocentric self(Christian Man) was set against the pagan Other.²¹ The renaissance ratiocentric self (Rational man) we set against the irrational/subrational Other.²² The biologically advanced White self (Darwinian Man) was set against the biologically deselected dark skinned Other.²³

¹⁸ Wynter.

¹⁹ "1492: A New World View," in *Race, Discourse, and the Origin of the Americas : A New World View*, ed. Vera Lawrence Hyatt, Rex M. Nettleford, and Smithsonian Institution. (Washington: Smithsonian Institution Press, 1995).

²⁰ *Ibid.*

²¹ "Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, after Man, Its Overrepresentation—an Argument," 266.

²² *Ibid.*

²³ *Ibid.*

Each one of the genres relied on different discursive and institutional mechanisms to protect the advantaged of a few. They all have one critical similarity, their description of humanness rests on extrahuman grounds: divinity or natural selection.²⁴ And yet, in the end, Wynter calls for a re-narration of humanness that overcomes the unjust Othering of previous genres that only served the supraordinate goals of a few at the expense of the many.

WHERE TO START WITH A THEOLOGICAL ANTHROPOLOGY?

Where do we start, though? Before we can fully establish the value of theorizing and speaking about human nature, we must admit that a variety of starting points exist. Kathryn Tanner argues, one can start with the individual human (abstractly conceived) by answering the “what” question. In theological terms the question becomes, “what is it about the human creature that images God” and leads to a structural analysis of human nature and which has historically focused on reason, will, and, more recently, human desires as the constitutive “whats” that comprise the nature of human creatures.²⁵ Alternatively, one can start with a socio-centric view that shifts attention away from the ontological structure of human nature and towards a focus on human relational capacities. Finally, one can take the approach of theologians like Karl Barth and Kathryn Tanner’s by concentrating on what Christ reveals about human nature and grace.

All three of these approaches have their advantages and disadvantages, but the variety of approaches and the energetic debate surrounding them again illuminates the immense difficulty one confronts when speaking of human nature. Besides the very serious injustice issues attached to anthropological conversations, the nature itself is mysterious. Henri de Lubac argued that human nature is difficult to locate and articulate because it *is* the very image of God, and

²⁴ Ibid., 264.

²⁵ Kathryn Tanner, *Christ the Key*, Current Issues in Theology (Cambridge, UK ; New York: Cambridge University Press, 2010), 1.

therefore human nature is mysterious in the way that God is mysterious. In fact, de Lubac considers this mysteriousness a mark of our Godlikeness.²⁶ To de Lubac's mysteriousness, I would add another point. It is difficult to speak of human nature because we are so deeply implicated in the process and in the outcomes. Especially under the conditions of sin, any attempt to speak about an essential human nature runs the risk of devolving into a self-centered attempt to privilege the speaker over others and therefore secure power over those others. Not only are we inherently mysterious and unfathomable, we are also subject to grave error.

However, to say that an endeavor poses challenges is not to say that those challenges are insurmountable. Indeed, de Lubac asserts that “there is a flexibility in reason, as the history of doctrine shows, and when it abandons the narrow rules of too human a rationality and appears to be overwhelmed by the weight of mystery, something analogous to a conversion takes place within it, a kind of rebirth, an entry into a new world.”²⁷ With this in mind, and in submission to both the weight of human mysteriousness and the dangers involved in such an undertaking, we can proceed.

AN ANTHROPOLOGY-FOR WHAT?

Proceed to where? For what purpose? Those are the questions at the heart of this entire work, and so we should subject our conversation to the same questions. My theological anthropology is an interpretation of the human essence grounded in the concrete experience of the Christian tradition, the concrete experience of those who have lived creatively on the underside of modernity, and the concrete life of Thomas Aquinas. Because this anthropology reads the human being and its condition from within the bounds of finitude, I intend for it to be mobile,

²⁶ Henri de Lubac, *The Mystery of the Supernatural*, Milestones in Catholic Theology (New York: Crossroad Pub., 1998), 276 ff.

²⁷ *Ibid.*, 226.

flexible, and amendable. Essentially, this is a relational anthropology of solidarity that seeks “intelligent, active, compassionate love for the other.”²⁸

Moreover, I hope to enrich that discourse by bringing disparate strands of theorizing into conversation, listening carefully and critically to both strands, and thereby establishing a stable but not immovable anthropological foundation for making prudent judgments about how humans should relate to each other as human beings. What are these strands? First, slaves themselves will explain the nature of humanness to us by revealing the moments where Man’s humanness fails. These primary slave narratives will be supplemented by contemporary decolonial, feminist, womanist, and critical race discourses. Finally, the medieval scholasticism of Thomas Aquinas. Neither the slaves nor the modern critical theorist that I use strive to construct a systematic theological anthropology grounded in the Christian tradition. Thomas serves two purposes. First, he helps systematize the insights that slaves had about human nature. Second, he provides more details than the slave narrative about the human’s physical, emotional, and intellectual anatomy. That Aquinas provides more detail does not indicate a lack of fault or a deficiency in slave analysis of human nature. It simply represents different purposes.

I also want to explicitly foreground a typically subterranean agenda that infuses every intellectual project focused on identity and justice—even deconstructive projects. I hope that my theological interpretation of humanness motivates, de-motivates, and even controls human action in both passive and active ways for the purposes of liberating human feeling, thinking, and choosing. It is intended to serve as an interpretation of humanness that sets limits around what we think we should and should not do and to set limits around we actually do and refrain from

²⁸ Copeland, *Enfleshing Freedom : Body, Race, and Being*, 94.

doing based on the fact that human beings are beings of a particular kind of nature.²⁹ Moreover, it constructs crossable boarder that human beings can intentionally transgress. Ontologically, it is impossible for human beings to transmogrify into wolves, but they can certainly choose to act in ways that radically diminish their humanness and, unfortunately, the humanness of others (racism is paradigmatic for this essay's purposes—racist ideology and practice is sub-human).

This kind of anthropological interpretation is undoubtedly a precarious task, but by listening carefully to those who have suffered from error filled and vicious anthropologies, I think we can make progress towards justice, humility, temperance, and, most importantly, love for the other.

HUMAN NATURE AND HUMAN GOODNESS AS SELF-TRANSCENDENCE

Not only does a concept of human nature lay a foundation for universal human rights and the condemnation of oppressive behavior, it also serves as a resource for affirming human goodness. On one level, we can affirm that human beings are universally good because they all possess an essential tendency towards and human capacity for self-transcendence. The motivating principle and activity of human life reaches out for something beyond the self. Aquinas locates this in the human creature's desire to obtain knowledge of God through rational deduction from first principles.³⁰ While this natural knowledge is inexorably bound to the created world and, thus, less than the perfect vision of God obtained through grace, we still see a human capacity for reaching out beyond the self. Henri de Lubac makes the same point, "Whatever a man may think

²⁹ I state this intent in the most direct way possible because I think that projects that engage issues of identity and power always have two aims. One, they seek to free human agents in critical places where they have been constricted. Two, they seek to restrict the agency of those who have been the source of oppression. This second intent often goes unspecified, and I think that specifying the intent opens space for reflecting in new ways because it clarifies the goal and the goal determines the mode through which we pursue it.

³⁰ Feingold, 401-03.

with his reason, he cannot stop himself having deceptive dreams. Constantly stirred by that ‘impatience with limitations’ which he has in theory disposed of, he continues to ‘strain, so to say, at the end of his chain’, though every effort ends in disappointment.”³¹

Unsurprisingly, establishing a unique human goodness in the self-transcendent propensity of the human creature is not limited to Catholic scholastics. Reinhold Niebuhr affirms as much in *The Nature and Destiny of Man*. After establishing, much like Aquinas, that “man is a child of nature, subject to its vicissitudes,” he goes on to write that man is also “a spirit who stands outside of nature, life, himself, his reason and the world.”³² Edward Farley argues similarly, “We can project ourselves and even our vulnerabilities onto the future and thus reflect on them. In such reflections, we become thematically aware of ourselves and our situations. And with thematic self-awareness come transcendence, irreducibility, and self-making.”³³ The point here is to show how we can attribute a unique and universal goodness to human beings by virtue of locating and defining an essential human nature. Humans are good because they are not completely bounded by their finitude or their material circumstances. This assumes, of course,

³¹ Lubac, 167.

³² Niebuhr, 3.

³³ Edward Farley, *Good and Evil : Interpreting a Human Condition*, Good & Evil (Minneapolis: Fortress Press, 1990), 102.

that we also accept that self-transcendence and the desire for it is a good thing, but that debate is beyond our scope.³⁴

While the argument of self-transcendence is of theological import, we have not made it explicitly theological. So, let's turn our attention to an explicitly theological theme. We can affirm the goodness of the human creature qua human creature by focusing on its natural capacity to be engaged by the divine.

However, defining human goodness in terms of *our* capacity to relate to God carries us deep into the debate about the human creature's desire for God and the role that desire plays in carrying us to our ultimate end. Can we say that a unique human goodness resides in the fact that human beings have a natural desire to know and love their creator? If so, what is the nature of that desire? Looking at the debate surrounding these questions will help us develop a fuller picture of how the concept of human nature puts us in a position to affirm a universal human goodness and the positive work that affirmation can do.

³⁴ This argument, like the others, is not without its problems. It is easy to point out that not all people are equally oriented toward the kind of self-transcendence described here, or that some people, by virtue of a mental handicap, are incapable of such activities of self-transcendence. Thus, to establish self-transcendence as a constitutive element of humanness logically devalues those people. By virtue of their lack, they are less human. In response, I would argue that this problem can be partially worked around by simultaneously affirming with Edward Farley that individual human being are "irreducible, complex, and multi-dimensional" (Good and Evil, 29). Complexity and multi-dimensionality opens the door for an affirmation of a wide set of capacities and faculties that are constitutive of humanness. So, where one person may be less inclined or developed in the faculties self-transcendence, they are probably more developed in others. Such complexity makes it unwise to differentiate levels of humanness based on an individual's possession or lack of any capacity or faculty. The fact that such calculation is unwise does not mean that it cannot be done. In fact, it makes perfect sense to establish degrees of humanness by privileging some faculties (i.e. technical reasoning) over others in wealth and power driven cultures that require those faculties in order to advance their accumulation of wealth and power. Here we see the problem that some theologians have with "human nature," but we also see the real culprit in the debate about human nature. The problem is not the concept of human nature as such, but rather the way in which individuals and societies put the concept of human nature to evil use as a consequence of their idol worship.

To the question of whether or not created human nature has within it a desire for God, we have several answers to choose from. Henri de Lubac answers with a resounding, "Yes!"

Kathryn Tanner answers, "No." Scheeben and Aquinas say, "Yes and No."

Let's begin with de Lubac. He affirms that humans possess a *natural desire for a supernatural end* as a way of responding to problems he perceived in the "bad intrinsicist," which accorded too much glory to pre-lapsarian human nature by making grace constitutive of its nature and too little glory to post-lapsarian human nature by altogether eradicating that original nature. The problem here is twofold. One, the pre-lapsarian creature can ascend to God on its own self-generated powers. Thus, grace is unnecessary. Two, the post-lapsarian human creature is altogether crippled and de-natured to the point that it can do nothing positive on its own, and because grace is a constitutive part of its created nature, God owes grace to the creature (*debitum naturae*).³⁵

Furthermore, de Lubac posits a natural desire for a supernatural end in order to counter pure-nature extrinsicist theologies that were constructed as a response to the *debitum naturae* problem generated by bad intrinsicist theologies. The pure-nature hypothesis, at least as it is interpreted by de Lubac, contends that *human nature is complete and self-sufficient on its own terms and can pursue its good, natural end independent of grace*. Therefore, it has no need for anything outside itself, and the *debitum* problem is, apparently, solved.

One of de Lubac's critiques, here, is that the human creature's finality is "considered as something fairly extrinsic: not a destiny inscribed in man's very nature, directing him from within, and which he could not ontologically escape, but a mere destination given him from outside when he was already in existence."³⁶ de Lubac also critiques extrinsicism for its

³⁵ Lubac, 61-62.

³⁶ *Ibid.*, 89.

tendency to subsume the supernatural into the natural, and therefore the supernatural becomes something that the human creature possess by nature. The supernatural is no more than a ‘supernature,’ and consequently, the creature can attain its ultimate end without the gift of grace.³⁷

In order to move away from the intrinsicist and extrinsicist positions and their problems, de Lubac posits an innate, natural desire for a supernatural vision of God which is constitutive of the human creature, sets it apart from the rest of creation, and defines the end to which the creature must move and to which its powers are suited.

Kathryn Tanner criticizes de Lubac’s natural desire for a supernatural end because he doesn’t ultimately provide an adequate solution to the *gratuity problem*. In order to work around the problem of gratuity, de Lubac posits a two-fold gift of creation. The first gift is that of creation where God gives humans the gift of being and existence itself.³⁸ The second gift is that of a supernatural finality that is impressed upon the creatures very nature. The solution for de Lubac lies in the fact that the second gift is not in any way a logical necessity of the first. If we divide the above gifts into moments in time, we can argue that none of them are logically predicated on any of the others. The fact that God gives us a spiritual being, does not necessarily require the Creator to imprint upon it a supernatural finality. And if God has imprinted upon our spiritual being a supernatural finality, God is not then obligated or indebted to present that finality to the creature in a way that honors its freedom to choose or reject that finality. Therefore, we have a twofold gratuity of grace: the first is the grace of existence, the second is the grace of a supernatural end. Both gifts are just that, impossible realities for the creature’s attainment that can only come by way of God’s free choice.

³⁷ Ibid., 48.

³⁸ Ibid., 100.

Tanner controverts de Lubac because, in her view, *situating the solution in divine freedom doesn't actually free God from owing grace to the creature*. She comes to this conclusion because the problem of gratuity concerns “not whether one divine decision constrains another, but the strength of the connection between the different things God wills, specifically here whether the fact of our creation with a desire to see God face to face does not in some sense imply the fulfillment of that desire in the actual vision of God by God’s grace.”³⁹ The strong connection between de Lubac’s first and second gifts raises for Tanner the question of “whether the vision of God is anything more than the gift of creation, a simple implication of the nature with which we have been created, owed to it by right, or whether it is something over and above it.”⁴⁰

Moreover, she critiques all Catholic theologies that attempt to solve the pure-nature problem with a naturally-generated human desire because natural desire for the divine, according to her, was, from the very beginning, the wellspring of the gratuity problem. She also highlights the fact that any notion of natural desire logically implies some sort of power internal to the creature that moves it towards its final end; it doesn’t matter how this desire is construed: negative or positive, active or passive. Finally, she thinks that all theologies of natural desire ultimately lead to a “two-tiered account of nature and grace” which ultimately throws us back into the pure nature problem--a self-enclosed, purely natural universe that exists independent of grace.⁴¹

Tanner attempts to overcome the problem by arguing that human nature does not generate a desire for God on its own accord. Rather, the desire is generated precisely at the point

³⁹ Tanner, 115.

⁴⁰ Ibid.

⁴¹ Ibid., 124.

where God draws near to us. “Desire for God is the product, in short, not of our nature but of grace, understood as a strong form of participation in God.”⁴² So, the beginning of desire depends upon God’s drawing near to us and participating in our lives. The deepening of that desire, the desire for more grace, is only a desire for more of what is already enjoyed.

Resourcing Gregory of Nyssa, she writes, “[Our capacities] become continually larger with the inspiring of the stream . . . The fountain of blessings wells up unceasingly, and the partaker’s nature . . . becomes at once more wishful to imbibe the nobler nourishments and more capable of uniting it; each grows with each, both the capacity which is nursed . . . and the nursing supply which comes on in a flood.”⁴³

However, the fact that we do not generate the desire does not mean that it is unnatural to us. In fact, our nature has been made for grace, or a strong form of participation in God. It has been made in such a way that it cannot function on its own apart from it. It is natural to us precisely because we need it to exist well, just like we need air to remain alive, and the loss of it does tremendous damage. Life without grace “must be an unnatural condition, a condition contrary to the character of our created nature, given the wretchedness and suffering that ensue.”⁴⁴ What is natural then, is not an inherent desire for God generated by our nature, but rather a set of conditions within which our nature is made to exist, namely, the condition of close proximity to our Creator. Because our nature was made to exist in an environment of grace, to exist outside of that environment is fundamentally unnatural. So, our normal and natural state in the garden was constituted by a strong form of participation in the life of God.

⁴² Ibid., 127.

⁴³ Ibid., 128-29.

⁴⁴ Ibid., 129.

From my point of view, Tanner's formulation fails to escape her own critique of the Catholic position that implies human beings have some sort of power that enables them to cooperate with or receive divine grace.⁴⁵ The idea that human nature was created to exist within a set of conditions (i.e. in relation to God) means that we must necessarily have the capacities needed to exist within that environment. We can say that fish are made to exist in water, which means that they have, *by nature*, the vital principle, its attendant powers and faculties, and the proper material structure to exist in that environment. They do not, on the other hand, have the nature necessary to live on dry land, and therefore land-dwelling is unnatural to them precisely because they lack that nature. So, if human nature is not constituted by a vital principle that endows it with certain powers and faculties and moves it towards God-relatedness (i.e. its proper environment), then we are thrown back into the pure-nature problem in that grace is radically extrinsic to human nature and therefore requires that our nature be radically altered. Tanner tries to avoid this problem by attributing a set of general qualities and capacities to created nature. She argues that the human being is uniquely constituted by a set of "created qualities and capacities" that facilitate the reception of divine presence and radical transformation through that reception.⁴⁶ Rather than explicitly locating a vital, formal principle of human nature or zeroing in on specific faculties like reason and will, she takes a more general tact and points first to the human creature's expansive openness which makes room for the divine life inside it; there is something about our basic operation that enables God to work inside of and adhere to our

⁴⁵ I think that I see a problem here that I won't address. I think that Tanner is confusing a part of human nature for the whole of human nature. She talks about our nature being made to exist in a close relationship to God. By this, I think she has in mind the powers and faculties that arise from our essence. In both Aquinas and Scheeben the powers and faculties grow out of the vital principle, and all of this, combined with our materiality, constitutes the nature of the human being. I think she is open to serious critique on this point.

⁴⁶ Tanner, 37.

nature.⁴⁷ Second, she highlights the extraordinary mutability that the human creature evinces. We are by nature susceptible to change and radical transformation through outside influences, and this is a process that involves our whole selves, body and spirit. These two elements of human nature make us, in a weak sense, images of God, and they facilitate the reception of divine presence that remakes us into strong images of God.⁴⁸ By virtue of these qualities and capacities we can swim in the water of grace.

However, I fail to see how these capacities and powers are different from, or at least strongly imply, some notion of natural desire defined as *obediential potency*. We can observe a remarkable parallel between Tanner and de Lubac on this point. de Lubac seeks to preserve the gratuity of grace by limiting our desire to purely *obediential potency*. He writes, “the power to see the divine essence is the specific obediential power (*potentia obedientialis*) of man as an intellectual creature,”⁴⁹ and he attaches this obediential potency to the spiritual nature of the creature that is nothing more or less than an openness to God. The spiritual nature of humans is like fallow ground, open, fertile, ready to receive seed. No seed is there, but it is ground nonetheless. And even the existence of the spiritual ground that is open to receiving sanctifying grace does not necessitate the gift of grace. Furthermore, this spiritual ground is not a faculty, a

⁴⁷ Ibid., 37-38.

⁴⁸ Tanner’s anthropology goes a long way towards making the human creature recognizable as a unique species within the created universe while at the same time sidestepping the problems of anthropologies that center their attention on specific human features like rationality or will. However, she can’t manage to completely distance herself from that discussion. The fact that human beings have these capacities inevitably raises the question about the source of these capacities. Consequently, she has to reference Gregory of Nyssa and Aquinas’ anthropologies which locate these capacities in the reason and the will. Rather than making these anthropologies normative, though, she avoids taking a firm position on the issue by gesturing to these theologians as examples, not programmatic first principles. Perhaps this is a wise choice. While I find Tanner’s anthropology highly compelling in many respects, I haven’t had enough time to fully determine whether or not it is fully convincing.

⁴⁹ Lubac, 78.

set of powers that enables the creature to move towards its end. It is only a field of soil that is an imperfect thirsting for (passive appetite) and capable of receiving divine seed and water.

Sanctifying grace (its attendant theological virtues) seed the soil, gives it direction, fills it with life and move the creature to its final end.⁵⁰

In Mystery of the Supernatural, de Lubac, like Tanner, fails to provide any deep analysis or explanation of this openness, and so we are left wondering about its specificities. Steven Long, resourcing Thomas, helps to clarify what de Lubac might mean, and he also helps to illuminate the implications of Tanner's concepts: expansive openness and extraordinary mutability. Long, like de Lubac, locates the natural desire for God in our intellectual tendency to seek universal truth, which, as we established earlier, is an aspect of human nature affirmed by both liberal Protestant and Catholic scholars. He writes,

This desire is ordered toward truth-in-general rather than specifically toward supernatural beatitude. It is precisely the nostalgia for grace that converts such indeterminate desire into the type of restlessness for God described by Augustine. This indeterminate desire is, as it were, an obediencial potency for such divine restlessness, moving from finite apprehension to finite apprehension without as yet being positively ordained to God's inner being.⁵¹

What might Tanner's "openness" look like if we interrogate it more deeply? I think that Long provides us with one possible option. Our expansive openness lies precisely at the point where we seek the transcendent, where we seek universal truth and goodness. Thus, it seems like the concept of a natural desire for God as described by de Lubac and further specified by

⁵⁰ *Ibid.*, 109-10. Given more time, I would tie this argument back to Aquinas, but considering the complexity of the debate around the nature of obediencial potency in Aquinas, I will merely use de Lubac as one example of an interpretation.

⁵¹ Italics added. Steven A. Long, "Obediencial Potency, Human Knowledge and the Natural Desire for God," *International Philosophical Quarterly* 37 (1997): 56.

Long fits quite naturally into Tanner's. In the end, it looks like a natural desire defined as obediential potency can quite naturally slide into the ambiguity of Tanner's terms: expansive openness and extraordinary mutability. Thus, it appears as though even when a theologian attempts to ground human goodness somewhere other than in an innate desire for God, the concept of desire still arises and becomes a possible source for human goodness.

Tanner and de Lubac represent two possible explanations for what human desire for God might look like, which brings us to Joseph Scheeben's account of the desire for God. In my opinion, Scheeben's conceptualization avoids the problems raised by the intrinsicist and extrinsicist positions that Tanner and de Lubac are trying to avoid by drawing a clear distinction between *how creatures relate to God* by nature from how they relate to God by supernature. Because he is concerned, in a manner similar to de Lubac, with the Enlightenment rationalist tendency to grossly overestimate human faculties and capacities and the Catholic Jansenist and Protestant Lutheran tendency to radically cripple human vital powers, he clearly delineates between two ontological orders. Consequently, he also distinguishes between two different orders of knowledge and love: natural and supernatural. In so doing, he solves the problems of gratuity and works righteousness.

According to Scheeben, the created spirit of the human creature (the formal, determining principle) is constituted by natural human capacities⁵² that are appropriate to its nature. Thus, knowledge of the Creator through creation is the proper, possible, perfect (even though not

⁵² Natural indicates all of those things that pertain to, arise from or are conformable to nature (p. 23). 1) Effects can be natural in that they arise out of the nature of a thing. 2) Qualities and faculties can be natural inasmuch as they derive from the things essence. 3) A good can be natural if that good was destined for a thing in its creation, or because that good is within the things power, or because that thing can receive a good beyond itself that will fulfill its ultimate perfection. 4) The orientation of a being to its end and everything pertaining to that end is natural if the thing is capable or can be made capable of striving toward that end.

ultimate) and good end to which the human creature naturally tends. This limitation of human knowledge and love of the natural order is necessarily the case because humans are hylomorphic creatures whose material and formal (spiritual) elements are vastly different—one oriented towards the sensible things of the material world and the other oriented towards spiritual things—and because both components lack the power to bring the other into complete submission.

Thus, the union between the two is always disharmonious. This disharmony persists until it is resolved by their separation (the dissolution of the material) which allows the spiritual to freely pursue and achieve its perfect end or by the imparting of supernatural powers that imbues man's natural spiritual nature with the power to bring the two into union.⁵³ This is, as I understand it, Aquinas' position, as Steven Long makes clear, "[for Aquinas the] natural desire for God is essentially of a lower order than the graced desire for beatitude and is conditioned by the finitude of the evidence whence it arises. In the texts of Aquinas this 'desire' is described as twofold: either (1) as desire for that which is most perfect in the genus of intellectual knowings or (2) as desire for knowledge of the cause of universal being."⁵⁴

With his two ontological orders, Scheeben counters the rationalists and the Jansenists: our created nature, and the knowledge appropriate to that nature, is capable and desirous of knowing truth, but this knowing is confined to its appropriate order, the natural order. Furthermore, the created will of humans is directed by and moved towards a natural love of God

⁵³ Scheeben, 64.

⁵⁴ Long, 55.

by means of the goodness inherent to and ineradicable from its nature.⁵⁵ Thus, there is no self-enclosed human world that is completely separate from and capable of functioning without God. Therefore, the risk of human initiated ascent to the supernatural order is ruled out. Furthermore, human nature in its natural state and in the conditions of sin is not in any way discordant with divine grace and therefore in need of reconstituting. Sin has not completely handicapped or obliterated our good human nature, and therefore grace does not have to violently assault the human creature in order for it to enter into a relationship with God.

In light of this debate, we can return to the question at hand, what kind of "good" can we attribute universally to human beings qua human beings that is valuable for theologians who explicitly concern themselves with issues of justice and would rather abandon the notion? To begin with, we can argue along with Aquinas, de Lubac, Niebuhr, and Farley that a desire for transcendence, a natural orientation towards ultimate truth-in-general, serves as a constitutive component of human beings by virtue of their very nature. Furthermore, if we construe this desire along Thomistic lines (via Long), then we can say that this constitutive desire serves as the empty ground (*obediential potential*) upon which divine seed takes root and elevates, by means of divine grace, a good human nature.⁵⁶ Most importantly, we can say that human beings were

⁵⁵ Scheeben's line of reasoning accords with St. Thomas who argues that we have not been ordered by our nature to a supernatural vision of God. Rather, it is grace and the theological virtues that order the creature to that supernatural end. This means that our will is naturally ordered to a love of God that is proportional to its nature, to love God as our creator and the "source of natural goodness." Our intellect is also naturally ordered to a knowledge of God that is proportional (connatural) to its nature: a natural contemplation of God as He is evident in nature. Thus faith is necessary to order our intellect towards a direct contemplation of God, and hope and charity are necessary to order us to a supernatural love of God. The insufficiency of our nature, which cannot have an innate desire for a supernatural vision of God, necessitates the infused theological virtues. c.f. Feingold, 409-10.

⁵⁶ For the sake of brevity I am omitting the lengthy debate about whether or not this desire for universal truth and goodness is an active or passive capacity and how that desire is in no way efficacious of our supernatural end.

created by nature to enter intimate relationship with their Creator. In my opinion, the universal human goodness affirmed by natural desire provides a better foundation on which to ground arguments for human justice than the alternatives.

To provide one example. The in-fact pure nature tradition (not the hypothetical pure nature tradition) starts off from a position of human lack. What God has created fundamentally lacks the goodness necessary to develop a relationship with its Creator. Unless one posits another ground of universal goodness, all human beings are, therefore, deficient at the starting line, which could serve as a universal foundation for denying justice. We could look to Hobbes as a prime example. Hobbes wrote of humans in a purely natural state,

The right of nature, which writers commonly call *jus naturale*, is the liberty each man hath to use his own power as he will himself for the preservation of his own nature; that is to say, of his own life; and consequently, of doing anything which, in his own judgement and reason, he shall conceive to be the aptest means thereunto.⁵⁷

In a desire and pursuit of self-preservation, and because no human being is inherently good by nature (ordered to God), no one has a *prima facie* responsibility to afford dignity and rights to any other person. In a state of nature, separate from God, the Other has no inherent goodness or worth other than their capacity to secure my own safety. People, and the societies they form, are reduced to utility based on the individual's desire for safety.⁵⁸

Contrarily, when desire for God is posited as a constitutive part of humanness, the Other is always and already engaged in and destined for a goodness that transcends my own personal safety or pleasure. Thus, the respect, and even the legal rights, afforded to the Other rests not on

⁵⁷ C.f chapter 14 of Hobbes.

⁵⁸ To get around this argument, one could posit a different, purely natural universal ground of goodness, but that is beyond our scope here.

the grounds of how they serve my personal ends, but rather on honoring the dignity of their God-likeness and protecting their pursuit of God and God's pursuit of them.

This position suffers from a severe limitation, however. The fact that human beings possess by nature a desire for God served as an integral and foundational component of the colonial enterprise.⁵⁹ Rather than protecting the dignity and freedom of Indigenous peoples of color throughout the world, the natural desire for God was used as a justification for white, European Christian missionaries to carry the saving truth of Jesus Christ to Indigenous peoples. Sometimes, this took the place of peaceful co-existence and service. In this case, the truth of Christianity was not an imposition but an invitation, and the problem of colonial violence doesn't become an issue. Unfortunately, this was not, empirically, the norm. The natural desire for God was frequently coopted by political and economic powers and used to justify the imposition of European systems of government, economics, and religion on "barbaric" and "primitive" peoples in need of saving. From the colonist's perspective, they were doing the natives a great service, and the colonial move was interpreted as fulfilling the Indigenous person's natural desire for truth-in-general by giving them the ultimate Truth: God in the person of Jesus Christ as interpreted and mediated by Western Christianity.⁶⁰

THE GOOD LIMITATIONS OF HUMAN NATURE, A SOURCE OF HUMILITY AND INTERDEPENDENCE

The historical fact that a natural desire for God served as an integral part of the foundation for colonial abuse in no way implies that such a move is a logical entailment from such a conceptualization of human nature. The colonial enterprise is only one possible outcome of such

⁵⁹ Another common justification was to simply to deny human status to Indigenous peoples. Indigenous peoples had no right to own land, demand humane treatment, or possess freedom because they did not have a nature that could lay claim to those rights or any other.

⁶⁰ Again, this summary is general in imprecise. It is only the springboard for future reflection.

a conceptualization, and we can minimize the possibility of its actualization by highlighting another value afforded by the concept: humility.

As we have already discussed, the nature and extent of human powers and faculties stands out as a central issue of the nature grace debate, and this focus emerged as a result of Enlightenment rationalism, the boundless power it gave to human beings (read here white, rational Europeans), and the radical degree to which it pushed God out of the world/pulled God down into the world. This tendency is apparent in Pico della Mirandola's argument that we quoted in an earlier chapter, "thou art confined by no bounds; and thou wilt fix limits of nature for thyself . . . Neither heavenly nor earthly, neither mortal nor immortal have We made thee. Thou, like a judge appointed for being honorable art the molder and maker of thyself; thou mayest sculpt thyself into whatever shaper thou dost prefer."⁶¹ Mirandola leaves no room for humility. God has endowed the human creature with limitless capacity and freedom for self-actualization. The individual need not bother relying on God or other people in the process of making the self, but rather can pursue, or rather, is challenged to pursue, an unassisted, unrestrained ascent to self-divinization. In hindsight, it appears that in a world where God has made Man sufficient unto himself, Man is destined to make himself into a god. This, I would suggest, sets the stage for certain men to make gods of themselves and to lord that status over others (i.e. colonialism).

However, a different conceptualization of human nature can serve as a deterrent to such self-aggrandizing and the consequences of such a move. If we posit a human nature that is essentially constituted by a natural desire for a natural knowledge and natural love of God, and which is simultaneously destined for the fulfillment of that desire through lasting and intimate

⁶¹ Wynter, "Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, after Man, Its Overrepresentation—an Argument," 260.

union with God; and if we add to that the consensus position that somehow that desiring creature is prevented from attaining that lasting union on its own powers, then we can establish a robust foundation for humility. What, though, is the source of human limitations?

Different theologians emphasize different causes. For Scheeben, our composite nature is the problem, as we established above. Because we are holomorphic creatures comprised of matter (material principle) and spirit (formal principle), an inherent disharmony exists within human beings. The material component of our nature is oriented towards material reality and represents the weak and sensual nature of the creature. The powers and tendencies of our spiritual nature, considered independently of the body, arise from the "immaterial, and hence, simple, unmixed substance and essence of the soul."⁶² Consequently, the spirit tend towards perfection through the power of its faculties. However, since neither the material principle nor the formal principle have enough power to establish dominance over the other, there exists an inherent dissonance that thwarts humans from achieving their interior perfection, which is the "full development" of the intellect through natural knowledge, of God (supreme truth). This dissonance also prevents them from obtaining their exterior perfection, which is union through love with God as supreme good.

In this account, we see a two-fold natural and perfect end of the human creature: internal and external. The internal end has two components: knowing and loving. In the order of knowing (intellect), the creature's perfect internal end rests in full and complete knowledge of God through creation (the effects of the divine in the world). Attached to this intellectual end is a proximate one, the creature's development and exercise of its intellectual faculties in pursuit of its intellectual perfection. In the order of loving (will), the creatures perfect internal end exists in

⁶² Scheeben, 71.

loving "God as the Creator and supreme Lord of its nature, and as the infinite Beauty known through its own and all other created natures."⁶³ The perfect external end of the human creature lies in a properly ordered relationship with God and other creatures: "to God, by venerating and adoring Him as the absolute principle of the spirit's nature . . . to created spirits, by loving them and respecting their personality and by living with them in intimate fellowship in the enjoyment and service of God."⁶⁴

While human beings tend towards and can attain this perfect end by virtue of the energies and faculties that originate in their nature, even independently from God, they cannot attain this end on their own. Unlike Mirandoloa, Scheeben leaves no room for the individual to fully actualize themselves independently of God or others precisely because their discordant natures rule out such a possibility from the start. The same would be true of human societies. In the process of growth towards its perfect end, the creature--and the societies it forms--is always subject to idolatry and evil, and therefore requires assistance on the journey to its perfect end. This actualization through dependence begins first with God. The creature can attain some knowledge and love of God and therefore some semblance of a moral order based on the powers inherent in its nature, but that attainment is always radically limited. To overcome this limitation, the creature must "enter into a special relationship of dependence on God."⁶⁵ Secondly, the creature must enter into a similar relationship with other creatures of a similar nature who share the same perfect and proximate, internal and external end. Scheeben elucidates, "the general social relationships among spirits, mentioned previously, is modified to

⁶³ Ibid., 82.

⁶⁴ Ibid.

⁶⁵ Ibid., 85.

the extent that it exacts mutual esteem and love, particularly mutual support and help in spiritual and corporeal needs⁶⁶ . . .”

Other theologians account for the limitations of human achievement in similar but less detailed ways. Tanner distinguishes between existing and existing well, which is the same distinction that Scheeben is making. For Tanner, all creatures image God in a weak sense, with the human creature doing so in a unique way. But this weak imaging means that our creaturely powers and faculties don't function fully. She writes, "The excellent functioning of our native capacities is not a self-sufficient operation . . . but requires a strong dependence on the very powers of God."⁶⁷ First of all, the source of this imperfect operation resides in the fact that all our powers and capacities are fundamentally derived or participatory, and thus "to be a creature just means to lead an insufficient life of oneself, to lead a continually borrowed life."⁶⁸ Second of all, the presence of the Word and the Spirit in the human creature are inherently unstable. There exists an innate immaturity that produces in us a false sense of self sufficiency.

de Lubac, on the other hand, doesn't dwell on what the human creature can accomplish on its own in pursuit of a natural end, in part because he is primarily concerned with its supernatural end and the gratuity of attaining it. However, he affirms, along with Scheeben and Tanner, that there exists in the very nature of the creature something that hinders the attainment of its perfect end: union with God. We see this in his emphasis on the limited nature of our desire for a supernatural end; it is nothing more than an *obediential potency*. We see it again in his conception of our two-fold gift: creation and a supernatural end. Like Tanner, de Lubac argues that part of our limitation resides in our createdness. We are beings whose nature and existence

⁶⁶ Ibid., 82.

⁶⁷ Tanner, 29.

⁶⁸ Ibid., 10.

derives from another: God. "By the fact of being created, man is the 'companion in slavery' of all nature."⁶⁹

This vision creates a framework for humility and, consequently, human interdependence in several ways. First, all human beings are destined for a unified end. This is something shared in common and is, therefore, a goal around which their efforts can unite. To minimize the possibility of utilizing this unified end as a means for justifying the violent imposition of local cultural configurations, we can highlight the inherent limitation of all human beings and societies in their pursuit of their natural and supernatural perfection. This applies to white, European rationalists and Christians. Even the church is weighed down and limited by the nature of its leaders and participants.

Second, by clearly delimiting what human beings can know, do, and become by nature, and by emphasizing the participatory aspect of their nature, theologians have resources to encourage and imagine cross-cultural and inter-faith communities of reciprocity and mutual affection. Scheeben's utterance is programmatic. It is precisely because we are creatures limited by our nature that we must cultivate inter-personal relationships and communities of "mutual esteem and love, particularly mutual support and help in spiritual and corporeal needs." The emphasis here is on mutuality, esteem, love, support and help. This most certainly can be imagined in colonial terms, but it can also be imagined in other ways. How we define mutuality, esteem, love, support, and help becomes the determining factor, not how we define human nature.

⁶⁹ Lubac, 148.

CONCLUSION

Now, let me recap this dissertation in words that I would use with a parishioner. Our present world has three fundamental causes, as far as I can see. All three are inseparably connected, like three cords of a rope wrapped around each other and tied off at both ends. These three causes are densely interwoven, and no single cause explains what happened. If we detach one cause from the others and use that to explain the process, essential facets of the process are lost.

First, physics. From beginning to end, physical principles determined how our world evolved. It determined the challenges Men faced, set the conditions of possibility, and always held secrets that had to be cracked open before Man could achieve his vision. From the molecular rupture to terraforming mountains, Man's body and mind always contended with the physical. Additionally, the physical processes of energy binding, separating, and flowing are remarkably paralleled in the social processes of emotional and intellectual bonding, separating, and flowing.

Second, Europeans ruptured the bond between the mind and reality. They distorted the connection between the human intellect and truth. This is ironic, because that was exactly the opposite of what they set out to do. Francis Bacon wrote, "God forbid that we should give out a dream of our own imagination for a pattern of the world."¹ Indeed! God forbid, and, yet that is precisely what happened. Western thinkers exchanged reality for a *theory about reality*.

When conquistadores landed on a new continent, they did not see the continent. They did not see the people and their way of life as they really were. Their minds had already fixed and framed that world, and they expected the world to fit somewhere inside that theory. For example,

¹ Bacon, Kindle Locations 468-69.

they thought that their laws were, somehow, universally applicable and that the world's people conceived reality in the same way. They assumed that "private property" existed, that somehow the natural world was "possessable" or "own able" and that possessing the natural world was somehow good. And when they stepped on to new land, they believed that that land could somehow be *theirs* and that the land could *be them*. Buddhists call this *appropriation* and *identification*, which is what we are prone to do to material things and ideas, "One either grasps them and takes possession of them, that is, one *appropriates* them; or ones uses them as the basis for views about one's self or for conceit ("I am better than, as good as, inferior to others"), that is, one *identities* with them. As the Nikayas put it, we are prone to think of [things] thus 'This is mine, this I am, this is myself.'"

They did this with all sorts of things. Another example. They believed that their concepts and practices of gender were clear, fixed, immutable, and exact utterances about the nature of men and women, that men are X and women are Y, where X and Y represent the emotions, thoughts, and acts that most European men and women learned to have and do. They came to believe that their "scientific" ideas about the origins and nature of people around the globe accurately reflected reality. They convinced themselves that they *were* the clothes they wore, the language they spoke, the way they carried their bodies, *et cetera*. They conflated these things with their self.

In many ways, it is understandable how they made such a mistake. The Western mind penetrated the depths of our natural world and its laws. The insights of Isaac Newton, Sadi Carnot, and Albert Einstein are genuinely awe inspiring. I get excited thinking about what they discovered. I am deeply moved by their brilliance. With those penetrating insights, human beings have been able to manipulate natural processes and develop technologies that can enrich life,

save life, and extend life. For anyone who is truly paying attention, it is difficult to see a space shuttle launch, or watch a heart transplant, or stand at the top of the Eiffel Tower and feel anything other than inspiration. It is easy to understand how Europeans could have thought that they genuinely understood the world.

And yet, for all their technical mastery, Western thinkers missed the deeper truths. If they hadn't missed those truths, if they had understood the deeper laws, if they had cultivated wisdom to guide their knowledge, they wouldn't have used their knowledge in such destructive ways. Destructive technologies and practices developed because they failed to grasp, understand, or comprehend the deeper principles of living that other people have known for millennia. Societies around the world have identified and revered particular *men* as the fullest embodiment of those life principles (Moses, Buddha, Aristotle, Jesus, Mohammed, and many others). The principles of life that these men understood and embodied aren't gendered principles. They are life principles, without gender, and anyone can know them and embody them. They are principles of attentiveness to Creation. They are principles of care-full living. Principles of hopeful living. Principles of faithful living. Recognizing and living according to these principles requires finely tuned emotions, minds, and wills that coordinate with the body's wisdom.

Finally, the third cause. Europeans ruptured vital emotional bonds that attach human beings to their world, and they guided all human passion towards a narrow set of objects. Fundamentally, Western thought and practice *reduced* human passion. This seems counter-intuitive, but I think that it is true. European affectivity diminished health human desire in two ways. A) They ruptured the relationship between the individual, the natural world, and other human being by making the individual's desire and the fulfillment of that desire the beginning and the ending of existence. This is a matter of distorted self-love. Even when love was directed

towards nation or race, that love, the way that it functioned, ultimately pointed towards the individual's gratification. B) Desire was overly focused on (dramatically reduced to) the most impermanent objects in existence: material goods (physical capital) and social honor (social capital). Material goods and honor are inherently valuable! In fact, they are fundamental to life. Without them we cannot sustain our bodies or our relationship. Their value, however, is limited because their existence is fragile and the satisfaction they produce is ephemeral. They get scratched, they break, and ultimately, they dissolve. This is true of both material possessions and honor. The pleasure they provide is good. That is why we feel pleasure when we obtain them. But that pleasure fades quickly, even more quickly than the things themselves.

Human life is richer and more stable when our desire is more expansive, when our primary pleasure springs from the act of living itself. Individual and communal lives are better when every individual is intentionally aware of and finds joy in living life together with others. This way of living entails four things. *First*, we have to cultivate a deeper understanding of ourselves: our emotions, our thoughts, our actions, and how those emotions, thoughts, and actions came to be. *Second*, we have to cultivate an awareness of the emotions, thoughts, and actions of the other feeling, thinking, and acting beings in our world. The first and the second entail a *third*. We have to cultivate the ability to *actively* see, hear, smell, touch, and taste the details of the world around us with the intent of *truly understanding* our reality, as we experience it *and* as others experience it. *Fourth*, we have to cultivate a deep and abiding desire for all things to flourish and resolve to do everything that we can to nurture that flourishing.

This is nothing more and nothing less than love. Extraordinarily, this way of living does not demand that the individual sacrifice herself for the sake of the whole. Love is a non-depleting, non-competitive resource. If an individual, deep in the core of her being, desires

flourishing for all things, she understands that her flourishing is essential to the whole. She also understands that the flourishing of everyone and everything that she encounters is essential as well. From within this habituated desire for flourishing, from within this rich awareness of the concrete reality before her, from within this intense awareness of her pleasure and pain and the pleasure and pain of everything around her, she can make the difficult decisions demanded by the complex realities we all inhabit.

Love, genuine care and concern for one's own flourishing and the flourishing of others, does not demand self-sacrifice. The lover never sacrifices when he denies himself for the sake of the beloved because the lover does not distinguish between himself and the beloved. The good of the other is the good of the self. The life of the other is his very life, and he gives it happily.

APPENDICIES

APPENDIX I: THINKING ABOUT THOMAS

Sylvia Wynter critiques the medieval church for basing its genre of the human on the “master code of the ‘Redeemed Spirit’ (as actualized in the celibate clergy) and the ‘Fallen Flesh’ enslaved to the negative legacy of Adamic Original Sin, as actualized by laymen and women.”¹

She goes on to point out that the theological inclusion of Aristotle by medieval scholastics regenerated a conceptualization of God as an omnipotent deity that created the world for “His Own Glory, thereby creating mankind only contingently and without any consideration for its own sake . . . [and] . . . had left it without any hope of being able to have any valid knowledge of reality except through the mediation of the very paradigms that excluded any such hope.”²

Resultantly, a social order arose that was predicated on “degrees of spiritual perfection” and which compelled medieval subjects to see and feel themselves a justly condemned for their participation in Adam’s sin and “thereby behaviorally impelled to seek redemption from their enslavement through the sacraments of the Church, as well as by adhering to its prohibitions . . .”³ Altogether, this justified a social stratification whereby the clergy ruled over the lay world.

To some degree, Wynter probably reads the social context of the medieval world correctly.⁴ Theologically, at least in terms of Aquinas, her interpretation presents a caricature of a complex theological system and misinterprets his theology of the Divine nature, human capacities and power, and the nature of the church. According to her reading of medieval

¹ Wynter, "Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, after Man, Its Overrepresentation—an Argument," 274.

² Ibid., 275-76.

³ Ibid.

⁴ I suspect that she has over-simplified, but I will have to go do a closer historical read of the medieval social order to make that argument.

scholasticism, it would indeed be difficult to represent humanness in a way that would be of much help to us in responding to the violation of black life. Nevertheless, we can turn to Aquinas to correct the misinterpretation, and, perhaps justify Aquinas' participation in the conversation.

When engaging Aquinas' thought, especially his theology of sin, I think it is helpful to remember that he was more than a scholar. He was also a priest, poet, and hymn composer. Because of the immensity of the Summa and its highly technical and rational method, we have a tendency to overlook his passion and zeal that are visible in other writings. In his prayer, "Devoutly I Adore You, Hidden Deity" we see the depths of his emotion,

Devoutly I adore you, hidden Deity,
Under these appearances concealed.
To You my heart surrenders self
For, seeing You, all else must yield.

Sight and touch and taste here fail?
Hearing can only be believed.
I trust what God's own Son has said.
Truth from truth is best received. . .

I see no wounds, as Thomas did,
But I profess You God above.
Draw me deeply into faith,
Into Your hope, into Your love. . .

Jesus, Whom now I see enveiled,
What I desire, when will it be?
Beholding Your fair face revealed,
Your glory shall I be blessed to see.

This prayer, filled with desire, mystery, love, and hope, strikes a dissonant chord with the technical tone of the Summa, but Thomas brings the same passion to his theology. Jean-Pierre Torrell writes, "We see Thomas engaging in prayer in the moments when he had to study, teach, write, or dictate, and in particular when he had to treat a difficult topic. . . . Thomas should be reread from this point of view to see how his contemplation as friar-preacher-theologian found

its natural expression in his work."⁵ At the end of his life, he experienced several ecstatic revelations that transcended the rational achievements to know and explain the nature of God and reality in the *Summa*. The last one led him to give up writing. He commented, "I no longer can. Everything that I have written seems strong in comparison with what I have seen."⁶ That he could have these experiences did not come as a surprise to him. He had always maintained that human reason was an extraordinarily powerful and valuable tool, but that it was, without divine grace, altogether incapable of piercing the deepest mysteries of existence. It is important to keep his pastoral sensibilities, his deeply held passion for God and all God's creation, and the limited rationality in mind as we explore his theology of sin. A deep and abiding concern for human flourishing motivated the saint of the church, and, consequently, it is ultimately pastoral.

Nevertheless, Thomas' theology has its problems, especially in relation to gender and race. Part of the problem is that a variety of presuppositions work behind the scenes in his theology, many of which run contrary to contemporary first principles. It is hard to overestimate the degree to which Thomas' presuppositions are bizarre and even offensive to many modern readers, and so I want to make a few preliminary comments in defense of Thomas, not necessarily a defense of his presuppositions, but a defense of the man that I hope will engender a more charitable reception of his ideas, ideas which I believe can offer significant conceptual resources that illuminate the complex and shadowy nature of human evil, in general, and racism, specifically.

⁵ Jean-Pierre Torrell, *Christ and Spirituality in St. Thomas Aquinas*, Thomistic Ressourcement Series (Washington, D.C.: Catholic University of America Press, 2011), 23.

⁶ *Ibid.*, 20.

It has been argued that Thomas' anthropology and social vision implicitly condone (at best) or laid the foundation for (at worst) the Colonial and Imperial movement of European powers. We find evidence for this challenge in the aforementioned passages about women: the wise, more rational should rule over the unwise. We can quickly substitute women with indigenous peoples who were labeled by colonialists as primitive, childlike, and brutish: devoid of reason. We can then add to this Thomas' conceptualization about states of human existence as a "kind of position, whereby a thing is disposed with a certain immobility in a manner according with its nature."⁷ Certainly, this sets out a robust foundation for justifying chattel slavery.

It is easy for people, separated by hundreds of centuries from the complexities and nuances that constituted a specific historical moment, to casually pass judgments on the theoretical inadequacies, the socio-political injustices, and the seemingly superstitious articles of faith that past generation constructed and enacted. Oftentimes, this is done by reading the past uncharitably through contemporary scientific and theoretical knowledges with the benefit of knowing historical outcomes. It is also usually accompanied by a reductionist interpretation of past thinkers. I have tried to avoid this, reading Renaissance and Enlightenment thinkers charitably, commending their insights, and, as we move forward, critiquing their failings, which I probably could not have avoided.

Alejandro Crosthwaite, in *Beyond the Pale: Reading Ethics from the Margins*, approaches Aquinas differently when he condemns Thomas' concepts of servitude. After cataloging Aquinas' theoretical deficiencies (his views on tyrannicide, capital punishment for

⁷ *ST* II-II Q. 183

heretics, anti-Semitism, and the inherent inferiority of women) and his position on servitude, he finishes with John Finnis' clarifying point,

[Thomas' conceptualization of servitude] was far from the inhuman institutions of slavery of Republican Rome or the *ante bellum* United States; it differs radically from the 'absolute dominion and arbitrary power' of master over slave defended as part of the 'right of nature' by John Locke.⁸ Thomas' conception of servitude relates specifically to the buying and selling not of people but their service. The one who sells himself into servitude still fully retains his moral and legal rights and enters into a relationship that should be 'governed by justice and mutual rights.'⁹

Crosthwaite confidently concludes, "By not straightforwardly condemning the institution and practice of servitude itself, by not using against it the power of words alone (it's strongest weapon), Thomas Aquinas, with the church and the universities, buttressed these institutions and eased the consciences of those owning dealing slaves for centuries to come."¹⁰

I believe that Crosthwaite's comparison is a false one. In this specific case, Thomas nor the church cannot be accused of direct complicity in the institution of North Atlantic slavery or directly palliating the conscience of those who participated in it. There is a fundamental distinction between Aquinas' concept of servitude and North Atlantic slavery. So, to say that the failure to condemn the one is a failure to condemn the other simply doesn't hold. It would be like saying my failure to condemn the buying and selling of professional football players is akin to implicitly condoning North Atlantic slavery.¹¹ Now, inasmuch as future theologians,

⁸ Alejandro Crosthwaite, "Thomas Aquinas on Servitude," in *Beyond the Pale. Reading Ethics from the Margins*, ed. Miguel A. De La Torre and Stacey M. Floyd-Thomas (Louisville, Ky.: Westminster John Knox Press, 2011), 37.

⁹ Ibid.

¹⁰ Ibid., 39.

¹¹ For a complete explanation of this analogy, c.f. Patterson, 18-27. Patterson provides several markers that distinguish slavery from other kinds of market transactions where human persons are the object of sale and purchase, including football players and indentured servants. One, there exists a significant difference in the relative power between the two parties. The football player (and indentured servant) has significant claims and powers in the exchange and in the larger society. In the case of slavery, the slave master exercised total power over the slave's life (internal and external). Two, they differ in origin. "Only slaves entered the relationship as a substitute for death" (p. 26). Three, slaves have been totally detached from "all ties of natality" and completely stripped of honor.

ecclesiastical and political leaders distorted Thomas' theological and political system and used it to serve their particular ends regarding slavery, we can say that Thomas was accidentally complicit, but this accidental attachment frees him of culpability, in the same way I would be alleviated of culpability if someone stole my car and used it to commit a bank robbery. I was accidentally involved but not directly.

One could reasonably argue that Thomas himself would have categorically rejected the proposition that blackness had any bearing whatsoever on the nature of one's humanness. In fact, he explicitly addresses this in his treatise on *On Being and Essence*. In considering the absolutely essential nature of human beings, he distinguishes between that which *necessarily* pertains to humanness and that which only *accidentally* pertains to humanness. He writes, "For example, to a man, on account of being a man, it pertains to be rational and animal and anything else that is in his definition; to be white or black, however, and anything else that is not involved in the notion of humanity does not pertain to a man on account of being a man." *The color of a woman's skin is accidental to her humanness*. It is a material variation. Now, and this is a critical point, whether or not Aquinas would have argued that somehow there was a correlation between skin color and intelligence, civility, and the like, I do not know. He may have taken the position that black people were determined by God to be inferior by white people, like women are inferior to men (on the distinction and inequality of things, c.f. *ST I*, Q. 47). I will have to research more. We do know, however, that for him dark skin color does not mark one as existing outside the bounds of humanness.

The Problem of Gender

Modern western societies have focused on important issues of identity equality that would never have crossed Thomas' mind. Consequently, some of his positions seem archaic, ridiculous, and even offensive to the point that many in the academy have judged him to be a source without

credibility. A paradigmatic case arises in the *ST I*, Q. 92, which interprets the creation story, the nature of men and women, and the properly ordered relationship between them.

Thomas explicitly argues, in the order of creation, women are intended to help men not generally but specifically as child bearers, because in all other things “man can be more efficiently helped by another man.”¹² To make matters worse, in his reply to the first objection, he reiterates and accepts as true Aristotle's position that individual women are defective and misbegotten males because, first, the most noble vital action of human beings is their intellectual operation and, second, in the process of generation, "the active force in the male seed tends to the production of a perfect likeness in the masculine sex" (i.e. another rational male).¹³ This is followed by his reply to objection two where he delineates the kind of servility due to women. Unlike the kind of subjection where a master uses subjects for his own benefit (a condition existing only after sin), the subjection of female to male is marked by a paternalistic quality. In a properly ordered world, men should rule over women for their own good because it is economically and socially necessary for the wise (more rational) to govern those who are less wise (less rational).

Thomas, however, doesn't deprive women altogether of human dignity. Because of his theological commitments, he cannot accept Aristotle's assessment without qualification. In Thomas view, every aspect of the natural world has been purposefully created and ordered by

¹² *ST I*, Q.92, Art. 1

¹³ I haven't had time to investigate the way in which this argument connects to the rest of Thomas' highly synthetic system of thought. In light of his understanding of matter's inherent instability and tendency towards corruption, I would hypothesize that Aquinas would argue that women possess a fully rational, immutable soul created in the image of God, but some sort of material corruption occurred in the process of generation that somehow weakened woman's capacity to exercise her rational powers. If that is the case, then part of the problem that his anthropology faces is an antiquated understanding of the relationship between matter and spirit, body and soul.

God, “Who is the universal Author of nature.” Consequently, he needs to qualify Aristotle's position. And so he proceeds to distinguish between the individual instantiation of humanness in the female and human nature in general. While something has gone wrong in the generation of individual females (the male perfection was not replicated), their nature as human qua human, isn't in any way misbegotten. The Author of nature intentionally created women, albeit primarily for the purpose of generation and care for the family. Surely, this small window of equality is small consolation to those who have lived out the practical consequences of this theological anthropology, one that was firmly established long before Thomas' time and has persisted into the present.

How can we respond to this? Do we need to discard his ideas whole cloth? Can we cut around the parts of his theology that don't fit our theoretical framework? Both choices are problematic. The second one especially considering the tightly interwoven nature of Aquinas' theological system. Nevertheless, there is a way that we can work around Thomas' more problematic positions on gender while still retaining the structural integrity of this theology.

Reassessing Thomas's Anthropology

First, and most importantly, we can discard his gender theory without doing any damage to the core of his philosophical and theological system. This is a bold claim, perhaps bolder than I should make considering that level of knowledge I have about both Aquinas and Aristotle's philosophy, but I think that their very theoretical system supports the claim. Why? Because, his gender theory is not a formal element of the system. It does not rise to the level of first principle in matters of being, essence, or even his anthropology. Abandoning his theories of women and the gender hierarchy does not affect theories of causality, the definition of nature, matter, change, essence and accidents, nor his genus and species taxonomies. We can argue--utilizing his own principles—that he misread the situation and misapplied his general theories.

Second, and equally important, his first principles don't lead of necessity to his interpretation of women nor to his gender hierarchy. His first principles and the distinction they lead to in terms of genus and species analysis don't terminate in any specific interpretation of the nature of women in general. Specifically, his anthropology as a species interpretation applies equally to everyone within the species. Since women don't constitute a different species, his general theory of humanness, and all that it entails, applies equally to all human beings, women and Africans.

This presents a third important point, his anthropology does not necessarily conclude in an oppressive social instantiation of that anthropology, even if we accept his emphasis on rationality without moderation. In fact, one could argue quite effectively that it leads into a more humane and just social life. His metaphysics and anthropology anticipate infinite variation within the species due to his theory of individuated matter. Individual, existent human beings don't share the same, actual, particular matter, and consequently, since we all have particular individuated matter, there will necessarily be infinite variations, and infinite individualities, within the species.¹⁴ We share the same flesh as a universal idea, but it is not the same actual flesh. The important thing is that every individuated instantiation of human nature necessitates that those individuals be treated with the justice due on the grounds that they are a particular kind of being that demands a certain kind of treatment due to that kind of being. We don't treat humans the same way we treat trees. We cut down trees and build houses. Sane people do not build houses with people's bodies, only tyrants. Why? Because humans, women, Africans,

¹⁴ C.f. Thomas Aquinas, "On Being and Essence," in *Medieval Philosophy : Essential Readings with Commentary* ed. Gyula Klima, Fritz Allhoff, and Anand Vaidya, Blackwell Readings in the History of Philosophy (Malden, MA ; Oxford: Blackwell Pub., 2007).

Republicans, are by nature different than trees and justice requires that they be treated according to their nature.

One may object that any definition of humanness necessarily leads to exclusions. Someone always falls outside. I don't see this to be the case. No human being is excluded from the species under Thomas' general anthropological vision. One could make the case that his emphasis on rationality leads to privileging of a certain kind of rationality that sends others to the exterior or renders them invisible (i.e. not or less human). That is simply not a logical entailment of the anthropology. Again, human beings admit infinite variation due to their having individuated matter, but the justice due to them stems from their participating in the general human nature, not a particular kind or form of rationality. There is not a hierarchy within the species, with some being due less and some more. That hierarchy may exist within his political vision, but again, the anthropological principles are not contingent upon the political principles. It goes the other way around, and there is more than one application of his anthropological interpretation. Now, enlightenment rationalists, colonialists, imperialists might take his anthropological theory and privilege their particular form of rationality over others to the end of making them less or non-human, but that is not due to Aquinas' anthropology but rather to some other motive: sinful inclinations like greed and pride.

One final pressing question in our assessment of Thomas is whether or not his view on women is something for which he is morally culpable. In *Epistemic Injustice: Power and the Ethics of Knowing*, Miranda Fricker sets out a rationale for differentiating between stereotypes, prejudices, and negative-identity prejudicial stereotypes. A stereotype, she writes, is a "widely held association [based on empirical generalizations] between a given social group and one or

more attributes” that may or may not be correct.¹⁵ These widely held associations develop through imaginative social co-ordination among groups of individuals who have shared conceptions of social identity. Stereotypes, in and of themselves, have extraordinary active and passive power (identity power) to shape the lives of both individuals and groups, but they also coordinate with other forms of social power. Stereotypes are, however, essential to our everyday testimonial exchanges where we need to instantaneously judge the credibility of speakers without thinking rationally, syllogistically through all of the data necessary to determine whether or not the person speaking to us is believable. For Fricker, “stereotypes are a proper part of the hearer’s rational resources in the making of credibility judgments.”

The critical shift happens, however, when a stereotype turns into a prejudice. Fricker defines prejudices as “judgments, which may have a positive or a negative valence, and which display some (typically, epistemically culpable) resistance to counter-evidence owing to some affective investment on the part of the subject” (emphasis added).¹⁶ The difference between prejudice and stereotype is an unwillingness to alter one’s view of the other individual or group when presented with new evidence that would challenge the validity and truthfulness of what should be a useful heuristic tool (a stereotype).

Stereotypes become problematic when they are accompanied by negative identity prejudices that produce negative-identity prejudicial stereotypes. This stereotype is “a widely held disparaging association between a social group and one or more attributes, where the association embodies a generalization that displays some (typically, epistemically culpable) resistance to counter-evidence owing to an ethically bad affective investment.”¹⁷ Whereas

¹⁵ Miranda Fricker, *Epistemic Injustice : Power and the Ethics of Knowing* (Oxford ; New York: Oxford University Press, 2007), 30.

¹⁶ *Ibid.*, 35.

¹⁷ *Ibid.*

prejudice can have a positive or negative valence, negative identity prejudicial stereotype always work against the speaker, resulting in the hearer judging the speaker as epistemically untrustworthy (incompetent and/or insincere) in order to obtain some kind of unethical, bad end. Fundamentally, this kind of stereotyping is *motivated irrationality*, a concept that we will return to in our consideration of sin's effects on the mind.

The effects of these stereotypes are devastating. On the part of the speaker, the primary harm entails injustice against the speaker's capacity as a knower and as a giver of knowledge. They are degraded qua knower and qua human. Furthermore, these primary forms are attended by multiple follow-on harms ranging from an immediate negative consequence to deeper, existential effects: a failure to gain knowledge, endurance to certain virtues, and psychological erosion's due to the fact that identity stereotypes had significant power to shape external and internal realities. For the part of the knower, they miss out on important pieces of knowledge. I would add two things that Fricker leaves out: these stereotypes stand as obstacles to the hearer's ability to form meaningful relationships with people who have the potential to enrich their lives, and they stand as obstacles to the flourishing of the larger social body--we will return to both of these points as we examine the effects that greed and pride have on Man.

It should be clear at this point, when it comes to gender, Thomas is undoubtedly working with a widely held, socially agreed upon association between women, rationality, passivity, emotionality, et cetera. Considered through a modern lens, one would almost immediately accuse him of negative identity-prejudicial stereotyping. Such a classification is open to challenge on three fronts, though.

One, inasmuch as the medieval world accepted and embraced the cosmology that Thomas represents, women themselves may not have consider his anthropology disparaging but rather an

accurate reflection of reality—even if we don't. While I think it is a stretch to argue that women would have accepted the argument that they were misbegotten males (although they may have), I don't think that it strains the bounds of plausibility to assume that many women—certainly not all—accepted the assessment that they were less rational than men, more emotional and passive, that they were created primarily for childbearing, and that such classifications were not negative. Such a perspective is not uncommon today among many evangelicals, Pentecostals, Roman Catholics, and a significant portion of the Majority World population. To state the point in another way, medievals lived within a social imagination where identities were coordinated and agreed-upon in a manner that differed radically from our modern-Western social imagination and the identities it produces. Consequently, what we perceive to be disparaging might not have been perceived in the same manner.

Two, classifying Thomas's position on women as negative identity-prejudicial stereotyping is also open to challenge in regard to his resistance to counter-evidence owing to an ethically bad affective investment. Proving that he was resistant to counter evidence because of an unethical, personal motive is a high bar to clear, one which genealogists have attempted to narrate themselves over. Nietzsche is a case in point. In his first essay of *On The Genealogy of Morals*, he attempts to excavate the origins of the term “goodness” (and truth) to show that “the good” was in fact synonymous with “noble,’ the ‘aristocratic.’”¹⁸ He posits the noble and aristocratic as the basic concepts ‘from which ‘good’ in the sense of ‘with aristocratic soul,’ ‘noble,’ ‘with a soul of a higher order,’ with a privileged soul’ necessarily developed [or we could say a male soul properly developed]: a development which always runs parallel with that other in which ‘common,’ ‘plebian,’ ‘low’ [female] are finally transformed into the concept

¹⁸ Friedrich Wilhelm Nietzsche, Friedrich Wilhelm Nietzsche, and Walter Arnold Kaufmann, *On the Genealogy of Morals*, Vintage Books ed. (New York: Vintage Books, 1989), 28.

‘bad.’”¹⁹ However, when the ruling class coincides with the priestly caste, those ruling religious elites transform “good” and “bad” into “pure” and “impure” in order to impose its “total description of itself” on the social order.²⁰ In truth for Nietzsche, all conceptualizations of the good and the true are fundamentally expressions of the will to power. Even when good and true are conceptualized as “goodness of heart” and “humility,” the will to power nefariously lurks in the shadows.

These concepts, for Nietzsche, are nothing but ideals manufactured by the weak in order to secure psychological assurance for themselves of treasures and power in heaven. According to his genealogy, the weak (Jews and Christians) desire “‘the triumph of justice,’ what they hate is not their enemy [the strong], no! they hate ‘injustice,’ they hate ‘godlessness,’ what they believe in and hope for is not the hope of revenge, the intoxication of sweet revenge (--‘sweeter than honey’ Homer called it), but the victory of God, of the just God, over the godless”.²¹ For Nietzsche, the good and true, is nothing but code for power. Ultimately, Nietzsche situates Thomas Aquinas, “the enraptured visionary” into the “herd” of weak religious zealots who secretly harbor a desire for power that they cannot have here on earth, and they comfort themselves with the thought that they can have it in for eternity in heaven.²²

One is either convinced by Nietzsche story, or one isn’t. There is, however, another possibility. Aquinas did not resist the evidence nor was he consciously enraptured by some

¹⁹ Ibid.

²⁰ Ibid., 31.

²¹ Ibid., 48.

²² Ibid., 49.

morally culpable, evil affective investment.²³ It is possible that he simply made a circumstantially influenced mistake that in fact relieves the burden of culpability.

Fricker is helpful here. She sets out several situations where someone might be exonerated of guilt for inaccurately judging someone or a group of people according to a stereotype. *Innocent error* is one case. For example, a young man, shopping at the grocery store, runs into a priest. Considering the way she is dressed and the stereotypes attached to that manner of dress, he makes certain assumptions about what this priest knows and does. Recently, the young man's grandmother has fallen ill and is in need of prayer. So, the young man approaches the priest, tells her about her grandmother, and asks for prayer. It just so happens that today is October 31, and the priest in question is, actually, a college student on the way to a costume party. Clearly, this is a case of mistaken identity and not blameworthy.

Fricker identifies another possibility, "*circumstantial epistemic bad luck*."²⁴ She gives an example told by Nomy Arpaly. A young boy grows up in an isolated farming community and comes to believe that women aren't as competent as men in rational matters like abstract thinking and math. Throughout his life he has never met a woman who was interested in or good at those things. He only has access to books written by men, and all the men that he knows hold the same opinion. Arpaly argues that in this case, the young boy hasn't made any kind of ethical or

²³ The idea that certain privilege accompanies identity power and serves as an incentive to ignore the effects of that power (at best) or actively seek to extend it (at worst) is important here. I think that it is certainly reasonable to assume that Aquinas received benefits due to his maleness and would have been subjected to significant sanctions if he had challenged the ruling patriarchal order. However, one could make a strong case that his theological and ethical vision would have given him a strong foundation from which to launch such an attack, if he had envisioned it. Furthermore, the question here is not whether or not his privilege somehow blinded him from seeing gender injustice but whether or not he is engaging in a kind of morally culpable negative-identity prejudicial stereotype.

²⁴ Thomas would put this under the category of invincible ignorance, which he covers in ST I-II, Q. 76.

rational mistake. If, however, he goes to University and begins to meet women who both like and excel in matters of abstract thinking and math, and he still stubbornly refuses to change his opinion based on the counter evidence, then he has made a moral mistake.²⁵ In cases of circumstantial epistemic bad luck, the "subjects patterns of judgment are influenced by the prejudices of his day in the context where it would take a very exceptional epistemic character to overcome those prejudices. These might be circumstances in which it is simply too much to expect the subject to achieve awareness that a certain prejudice is structuring his social consciousness, let alone to realign his habits of credibility judgment accordingly"²⁶

I recommend putting Thomas in this category. I do so for several reasons. One, it avoids the tricky task of trying to read and prove his internal motives, an approach that I don't believe, in this case, is problematic, unless one firmly believes that Nietzsche is right and that all human beings universally harbor or are controlled by and uncontrollable will to power.

Furthermore, it seems reasonable to believe that the evidence Aquinas observed in the world around him overwhelmingly supported his interpretation. Recently, neuroscientists and psychologists have confirmed that by-nature differences do indeed exist between men and women, and those differences become more exaggerated in cultures where they are reinforced through socialization. Former editor-in-chief of Nature Neuroscience, Sandra Aamodt, and Princeton professor of neuroscience, Sam Wang, analyzed thousands of scholarly articles published on biological sex differences, and (utilizing meta-analysis) they found a few important patterns. At the age 3, one can quite accurately predict the sex of the child based on his or her choice of toys, "97% of boys are more likely to play with male-typical toys than an average

²⁵ Fricker, *Epistemic Injustice : Power and the Ethics of Knowing*, 33-34.

²⁶ Ibid.

girl."²⁷ Because play is a critical part of skill development, these choices in toys can have a profound effect on the social and technical skills boys and girls develop and, therefore, the way in which they participate in the cultures social life. Aamodt and Wang argue that these preferences are cross-cultural, and, while they are certainly influenced by culture, they "almost certainly have an innate basis."²⁸ Furthermore, the average boy is "more active and more physically aggressive than 69% of girls," most likely because of hormonal effects.²⁹ Consequently, boys and girls develop segregated playgroups in early childhood, and they maintain these segregated groups until middle school. This segregation reinforces gender norms and exaggerates the by-nature differences that exist, especially among boys who experience severe consequences for engaging in non-normative behavior.

Considering Aquinas' argument that men are the more rational of the two sexes, it is ironic that contemporary evidence contradicts his, and Aristotle's, claim. The sex difference between boys and girls actually affords girls with "a medium-sized advantage over boys in the [modern] classroom, where girls get better grades in high school and college. Girl's brains mature earlier than boy's brains, with the peak volumes of most brain structures occurring one to three years sooner in girls."³⁰ It is also ironic that girls are "moderately better at inhibitory control-that is, sitting still and concentrating on their task-so the classroom culture is more friendly to girls." Furthermore, girls advance more quickly in developing verbal skills and fine motor coordination, which gives them a moderate advantage in their ability to write letters. Emotionally, scientists have determined that a small to medium difference exists between the

²⁷ Sandra Aamodt, *Welcome to Your Child's Brain : How the Mind Grows from Conception to College* (New York, NY: MJF Books, 2014), 65.

²⁸ *Ibid.*, 66.

²⁹ *Ibid.*, 67.

³⁰ *Ibid.*, 70.

two sexes, with girls being more likely than boys to exhibit fear or cry, but, physiologically, boys and girls respond similarly to distress. Significantly, experience can modify gender-related differences in education, "girls have recently caught up with boys in academic areas where they were lacking just a decade or two ago. In the US, there are no remaining gender differences in average performance on mathematical achievement tests through high school. In addition, women are now more likely than men to attend and complete college."³¹

Aamodt and Wang note that *other differences are far more influential* than gender when it comes to determining the outcomes of individual lives. Most importantly, economic status plays a bigger role in determining development than gender. Children from low income neighborhoods score significantly lower than their middle-class counterparts on reading and math tests, and this only gets worse as they get older.

Unless human nature has undergone a radical transition in the last 800 years, we can reasonably assume that the same by-nature differences and similarities would have been in effect in Aquinas' time, that they would have exerted influence over the identities men and women developed, and, more importantly, that those early by-nature differences would have been dramatically enhanced because of enculturation. Even though girls matured mentally and verbally at an earlier age than boys, as they grew into women of the 13th century, they probably did not exhibit the *same* "rational" skills as men, like scholastic theology or political governance, not because they were incapable of being rational, but simply because they weren't encouraged and mentored in those areas.

The point? I don't believe that we can exclude Thomas from discourse on gender and race due to any kind of irrationality, a blatant unwillingness to consider the evidence. Were Thomas

³¹ Ibid., 71.

presented with the modern evidence that Aamodt and Wang have collected, I suspect he would rewrite his arguments about gender. Nor can we exclude him from the discussion on the grounds that he was irrationally motivated towards an oppressive and unethical end. Finally, we cannot exclude him on the grounds that his theoretical system directly or indirectly condoned and provided the architecture for North Atlantic slavery, colonial expansion, and the rise of the modern world.

As far as I can see, this leaves us with one final reason for excluding him from the discourse: his ideas simply aren't useful. They are founded on an archaic metaphysic that is primitive and thoroughly ill-suited to respond to the pressing problems confronting the world and the church today. It is this reason that I hope to address in this chapter, because I believe that his anthropology (in spite of its shortcomings) and his theology of sin have extraordinary explanatory power. In fact, in the case of identity power and prejudice, they have the potential to account for white people's motivated irrationality. To put it another way, he helps explain why they would willfully (on either a conscious or preconscious level) deny or purposefully remain ignorant of the counter-evidence that could undo their identity prejudice and its attendant consequences. He does this by getting to the root of the problem. He exposes the motive cause of racial injustice.

APPENDIX II: PHASES OF THE CLAUSIUS ENGINE CYCLE

A few important points to set up the process—First, Clausius' process is an ideal one that represents the maximum efficiency that a working body can achieve. During this ideal process, the working body, which is inside a hypothetical, perfect cylinder, like the piston chamber in an engine, is first raised to a specific temperature, which can be any temperature T . Because this cylinder, like the whole process, is ideal, it prevents heat from leaking out of the system by conduction, it doesn't produce heat by friction, vibration, or other such imperfections that limit efficiency. Second, at the beginning of the process (position A on diagram XXXXX), the working body has a particular, definable condition or state determined by the temperature, heat content, pressure, volume, and entropy. All transformations that happen through the process are measured according to this original state. Third, at the end of the process, the working body will be returned exactly to its original state. Our task, in this process, is to track entropy (energy dispersion) changes and what affects those changes.

First process of the cycle (A-B): heat energy is converted into mechanical energy. To begin with, the cylinder is *isolated from its environment* and does not allow any heat to escape the system or enter the system. The energy inside the system is used to move the piston, let's say from point A to point B, and, as it does, the volume that contains the working substance expands and, consequently, the pressure drops as does the temperature, which drops from T to t_1 . For our purposes, temperature is the most important. The temperature drops to t_1 because temperature measures the average kinetic energy of all the bodies that make up the working substance. Decreased temperature means that the kinetic energy has decreased, which means that the overall energy of the system decreases as it does work moving the piston.

During this phase, the overall entropy of the system doesn't increase. This statement requires us to understand the two ways that entropy can increase. Understanding that, though,

requires a more nuanced definition of entropy beyond “energy distribution.” To further specify energy distribution, we can describe entropy, or energy distribution, in a different way. Entropy measures the change in possible microstates that can make up the overall state of a system at any given moment in time.

In every process, the possible microstates can increase in two ways: energy and/or volume. In this particular process, the various energy microstates that can constitute the state of the working substance decrease. Why? Because the temperature decreases, which means that the total kinetic energy of the system goes down. So, each atom in the system has fewer possible energy levels that it can occupy, which is to say that their possible velocities and other degrees of kinetic motion are diminished as the temperature decreases. However, the decreased micro-states of energy is offset by the volume increase that allows the less energetic molecules to occupy more spacial locations. The number of spacial microstates, that are a function of volume, increase because the working bodies in the substance have an increased range of motion, or increased degrees of freedom—a concept that will be important as we turn our consideration to slaves and English workers.

Entropy change from A-B = zero. *This means that increased spatial entropy is canceled out by the decreased energy entropy.* Overall there are the same number of possible energy configurations that could make up the macrostate in the beginning and at the end of the process.

Second Process B-C: in this process, heat energy is again converted to work, but there is a significant difference between the first and second process. In the B-C process, a heat reservoir compensates for the heat that would be lost as the substance does work. For each increment of work completed by the heat energy of the working substance, a reservoir, k , which never decreases in temperature, immediately replenishes the heat with heat Q_1 . So, there is no

temperature change in the subject as it moves the piston from B-C. —*The fact that the temperature of reservoir k doesn't decrease is essential to this process because heat flow between temperature differences is the source of entropy change. This is a critical point that we will return to later*—. Noticeably, the working substance completes significantly more work than the A-B process, which makes sense because there is no energy decrease.

Also unlike the first process, the entropy of the system increases. Why? In respect to increased energy microstates, no change occurs because the temperature remains constant. There is no less or no more energy to be distributed among the working bodies in the system. However, with respect to increased spatial/volume microstates, the entropy change is positive. Not only do the working bodies have more possible locations to occupy, their energy doesn't decrease like it did in the A-B process. This means that their ability to move within those spaces doesn't diminish, as it does in the A-B process.

The third process C-D: this process replicates the first process A-B, except the temperature, and consequently the energy, from t_1 to t_2 . This, again, is due to the fact that heat is not added to the substance as it works on the piston. Thus, the energy drains out of the system. At this point, a definite and measurable amount of heat energy has been converted into work, signified by the temperature drop and the increased volume/moved piston that has pushed some object from the 0 point to point Z.

The Fourth Process D-E: Because the objective in this cyclic process is to completely return the working substance to its original state in terms of temperature, entropy, volume, and pressure, the first three processes (A-B; B-C; C-D) have to be reversed. This means that rather than converting heat to useful mechanical work, mechanical work will have to be converted to heat by pushing (working on) the piston from D-F during the process D-E. At this point, the

working body isn't working on its environment, but rather the environment is working on the body: pushing on it, compressing it, forcing the atoms closer together.

During this compression process, the working body is “put in communication with a body K_2 , having a constant temperature, t_2 .”³² As the gas compresses, the heat generated by the work done on the body sinks into the body K_2 , and this continues until K_2 receives the exact same amount of heat Q_1 that was inserted into the working body during the second phase of the process B-C.

Allowing this heat to be rejected from the system enables Clausius to demonstrate that heat can pass through a working body without doing any work at all. All the heat Q_1 , as a potentially useful motive force, simply passes through the system without transforming into anything useful. However, it doesn't flow through the body without any transformation. It transforms from high energy heat (at t_1) to low energy heat (at t_2), which means that it has lost some of its capacity to do work. The work potential of the heat is lost in the transformation, and it is lost always and forever.

How does the entropy change during this process D-E? As the piston changes position and the heat that would have increased the energy of the system sinks into the cold reservoir ($-Q_1$), the molecules have less space in which to move: *decreased spatial entropy*. However, their various *energy levels remain constant* because some of the motive force in the system sinks out. As a consequence of these two system changes, the net entropy in the system decreases in proportion to the increase that occurred in the B-C process. If, on the other hand, the energy in the system had dropped along with the volume the entropy drop would have been greater because now the working bodies have fewer available energy states and a smaller space within

³² Clausius, 87.

which to move. Or, if the energy in the system had increased, the increased energy would have balanced out the spatial decrease and no net entropy increase would occur. As it happens though, the constant energy coupled with decreased spatial freedom decreases the entropy.

The fifth process E-F: the external mechanical force continues to work on the body, and this process completely reverses the two temperature/heat energy losses t_1 and t_2 that occurred from A-D, and the temperature/ heat energy is restored to its original T. As we would expect, the entropy increase during this process equals zero. The energy increase from E-F is offset by the reduced space for movement. *The bodies in the system have more energy, but they have less spatial freedom within which to exercise that freedom.* Even though the system has 0 net entropy increase at this point, there is a negative spatial entropy decrease. There is less volume, thus less spatial freedom and higher pressure.

The sixth process F-A: Fully restoring the system to its final state requires the working body to again do more work by moving the piston back out so that the system now has the same pressure and volume as it did in the beginning. And, once again, an external reservoir K will supply the energy Q to the working body as it does its work so that the temperature/heat energy of the system doesn't diminish.

APPENDIX III: THE ANATOMY OF POWER—WORK, FORCE, AND ENERGY

Let me walk you through the physics that led me to this interpretation. In physics, "power" quantifies the outcome of an interaction between A and B when A moves B in some direction over a discrete timeframe (power = number N / time). To state it the other way, we can say that when something A moves another something B in some way, an observer can quantify the movements in that interaction, and that quantification is the *amount of power*. The *actual event* of A moving B, however, is control, not power. When A moves B, A determines the course that B takes. It determines B's movements, its direction, its velocity, among other things. A sets boundaries on what B can do and where it can go. A has the means to and actually does control B. When that control is observed, measured, and calculated—by controller A, controlled B, or any other subject—power becomes visible.

Power is a Measurement of Work Done Over Time

In classical mechanics, "power equals work done per second."³³ So, power quantifies a physical phenomenon, work done in time, and in order to calculate the amount of "power" involved in any given physical situation involving only two objects, an observer needs to divide the amount of work done on some object by the time interval during which that work was done (Power = work quantity/time quantity); this is a relatively intuitive proposition that simple comparison can clarify. Compare the amount of work that subject1 can do on a cotton field in eight hours with the amount of work subject2 can do. It might take subject1 four days to collect all the cotton in the field, while subject2 may be able to do it in four hours. Clearly, subject2 is more "powerful" than subject1 because it can do exactly the same amount of work in less time. Concomitantly, the

³³ Richard Feynman, *The Feynman Lectures on Physics: Work and Potential Energy*, (Pasadena, CA: California Institute of Technology, 2013).
doi:http://www.feynmanlectures.caltech.edu/I_13.html.

plantation owner who owns subject2 has more control over his field than the plantation owner who owns subject1; hence, he is more powerful. This most basic definition should demonstrate the argument, "Power," per se, doesn't exist. Rather, "power," signifies numerically or quantitatively how much work one thing does on another thing over a discrete amount of time.

Regarding the desires of Man, they become somewhat clearer at this point. He wants the ability to do work on the world in time, which is control. But, as I already pointed out, he wants more. He *also* aspires to know, in his mind, the amount of work his tools can do on the world by devising a measuring rubric by measuring the work he can do. He wants to quantify his effects (i.e. his power) according to the measuring standard he constructs.

Power Measures the Effects of a Force Applied to a Body

At this level, though, our definition of power and the desire of Man is still rather fuzzy because *work* is an ambiguous term, and we have to ask, "What does work quantify?" He wants to do work on the world, but what does that mean? Work, in the symbols of physics, is a quantity of forces, distances, and the angles between the applied forces and the displacement of the objects (Work = force • distance of displacement • angle of displacement). So, for example, if I want to quantify the amount of work subject1 and subject2 do on the field, I have to take into account the amount of force each one exerts, the various distances involved (the size of the field, how far the move the objects in the field, and the angle between the applied force and the displacement of the dirt. If subject1 has a maximum force capacity of 10 units (Newtons) of force and pushes a plow 100 meters by applying force at an angle of 30 degrees, I can combine those quantities and divide their product by the amount of time it took to accomplish the work, say 10 seconds. With all of this knowledge, I can determine the amount of power subject1 is capable of exerting.

$$\frac{10f \times 100m \times \cos 30}{10s} = 86.6power$$

The usefulness of those numerical quantities increases when I compare the power of subject₁ with subject₂, which someone else owns. If subject₂ has a maximum force capacity of 100 units of force, and if it pushes a plow 100 meters by applying force directly in line with the movement of the plow, I can combine those quantities and divide their product by the amount of time it took to accomplish the work, say 5 seconds. With all of this knowledge, I can determine that subject₂ is far more powerful than subject₁

$$\frac{100f \times 100m \times \cos 0}{1s} = 10,000power$$

The amount of force exerted, the angle at which the force is applied, and the direction of displacement make up the skeletal structure of power.

By knowing these components of power, Man's desire becomes even clearer. He wants to exert force on the created systems of the universe in the most efficient way possible, and he wants to measure both the magnitude of his force and the efficiency with which he applies it so that he can make the adjustments necessary to increase his force-exerting capacities and improve the efficiency with which he can apply those forces.

There reveals an important point; if we only consider power at the level of work and force, we know almost nothing about the complex interactions occurring inside the working system. We only know that a quantity of force was applied at some angle and that the force moved some object a specific distance during a specific amount of time. We do not know anything about subject₁ and subject₂ that are applying force. Where does the force originate? How can Man augment his capacity to control force?

To genuinely understand and give a robust description of power relations and Man's desire, we must specify the anatomy of forces. Discerning the intricacies of power, perceiving the nature of control, comprehending what Bacon and modern-colonial Man aspired to, requires a full account of force. To truly understand power, we should know not only that forces are in play and the magnitude of those forces, but we must also know the *kinds of forces* in play. We have to identify *their source*. We have to know *the laws that govern them*.

Richard Feynman, in his famous lectures on physics, summarized the significance of forces for his discipline, "Newton's laws say, 'pay attention to the forces.' If an object is accelerating, some agency is at work; find it. Our program for the future of dynamics must be to find the laws for the force."³⁴ This maxim is fundamental to our understanding of power, both physical and social because power quantifies these effects. It quantifies force and the work that forces accomplish on bodies. Power describes how much force an agent exerts on a body. Power describes how far a force displaces a body and how fast it displaces it. "Power" describes how efficiently force is applied to a body. But power tells us more than this, it tells us about the origins of force.

Problematically, forces—like power—are invisible, and the word “force,”—also like power— describes the outcome of process, not a thing. How can we know anything about them then? Feynman argued that the principles of force are truly quite simple, “The real content of Newton’s laws is this: force is supposed to have some independent properties . . . if we study the characteristics of force as a program of interest, then we shall find that forces have some

³⁴ *The Feynman Lectures on Physics: Laws of Dynamics*.

simplicity; the law is a good program for analyzing nature, it is a suggestion that the forces will be simple.”³⁵

Newton's first law of motion reveals something essential about the nature of forces. It reveals their effects. Bryan Green summarizes Newton's law, "The effect of the force is to change the velocity of an object: forces imparts accelerations,"³⁶ moreover, Feynman summarizes it similarly, "If a body is accelerating [changing speed or direction], then there is a force on it."³⁷ We only know that forces exist because we observe the effects they have in a series of interactions; when force is applied stationary objects or objects moving at a constant speed accelerate (speed up or slow down), and objects moving in a straight line change direction.

Newton's second law of motion gives further detail. It tells us how to *quantify* force; it states that the quantity of net force acting on a body is equal to the mass of the accelerating body times the magnitude of acceleration that body exhibits.

$$\text{Force} = \text{mass} \cdot \text{acceleration}$$

If the plow in a field increases speed and changes the direction of its motion, we know that some force has acted on it, and we can determine the amount of force by calculating the mass of the plow and then multiplying that quantity by how much the plow accelerates in a discernible direction. An important note! The source of force may not be immediately evident (like the source of the gravitational force), but we can calculate the magnitude of that force by observing and multiplying the mass of the moved object by the amount that the object accelerates in a direction.

³⁵ The Feynman Lectures on Physics: Characteristics of Force, (Pasadena, CA: California Institute of Technology, 2013). doi:http://www.feynmanlectures.caltech.edu/I_12.html.

³⁶ Greene, 146.

³⁷ Feynman, The Feynman Lectures on Physics: Characteristics of Force.

This principle deserves further clarification because it moves us closer to Man's aspirations, and we can clarify by posing a question.³⁸ How much total wind force would it take to propel John Hawkin's seven-hundred-ton slave ship, grotesquely named the Jesus of Lubeck, from the English coast to the African coast and then to the Venezuelan coast during its 1546 voyage? Well, Newton's law says that the answer depends largely on the size of the ship. Alternatively, to be more precise it depends on the Good Ship Jesus' mass, which means that the Jesus will need more wind force to make it from Africa to Venezuela than to make it from England to Africa. Why? Because on the voyage from Africa to Venezuela, he had added the mass of hundreds of African slaves who had been torn from their land and communities. Fortunately, at least for Hawkins, the winds did their work. He made it to Venezuela, sold his slaves, and made it back to England with a 60% profit.³⁹

³⁸ This example, and all the examples, dramatically oversimplifies the situation because, as Foucault pointed out, there are always “a multiplicity of force relations.” If we want to complicate our assessment of any simple scenario, we must add every other force at work in the interaction, like the constant force of gravity and forces due to friction. Furthermore, when a technological device (a complex physical system itself) is involved, then we have to take into account the forces working inside that device. The essential point is this, **THERE IS NEVER ONLY ONE FORCE ACTING ON AN OBJECT, SO THE FORCE THAT MOVES THE OBJECT MUST BE GREATER THAN THE OTHER FORCES AT WORK.** Obviously, the multiplicity of forces at work quickly exceeds our capacity for absolute precision, but that is the nature of complex systems and the limited nature of our understanding, as Feynman wittily pointed out, “In order to understand physical laws you must understand that they are all some kind of approximation. Any simple idea is approximation; as an illustration, consider an object, . . . What is an object? Philosophers are always saying, ‘well just take a chair for example.’ The moment they say that you know that they do not know what they are talking about anymore. What is a chair? Well, a chair is a certain thing over there. . . certain? how certain? The atoms are evaporating from it from time to time—not many atoms, but a few—dirt falls on it and gets dissolved in the paint; so to define a chair precisely, to say exactly which atoms are chair, and which atoms are air, which atoms are dirt, or which atoms are paint that belong to the chair is impossible.” (ibid.) In both physical systems and social systems, we only ever arrive at approximations of force and power.

³⁹ For the story of the Jesus of Lubeck, c.f. Hugh Thomas, *The Slave Trade : The Story of the Atlantic Slave Trade, 1440-1870* (New York, NY: Simon & Schuster, 1997), 156-57.

Something still hasn't been added to the equation! We have yet to arrive at the *principle source of power* and the essence of Man's aspiration because we are still focusing heavily on the target of forces, the objects that are affected by a force. We haven't yet foregrounded the *principle property* of forces. Newton's first and second laws of motion, which we have already established, tell us a lot. Force moves bodies, and force is proportionate to the size and acceleration of bodies in motion, but these two laws both together tell us something even more basic about the nature of force, work, and power, "Force has a material origin."⁴⁰ Force always equal zero unless there is some form of mass (some material body) present, which means that work also equals zero, and, consequently, power also equals zero. Without mass, without bodies, there is no power.

We should be clear, however. The mass or the bodies, *per se*, from which force originate aren't the actual sources of force. It is the properties of those bodies that produce force. It is what they do and possess the capacity to do. The source of physical force is, essentially, the various forms of energy that are intrinsic to bodies —their kinetic energy, their potential energy due to gravity, and different forms of electrical and chemical energies that hold them together, among other things—, and when bodies interact, they transfer their various forms of energy to each other. To put this another way, the "force" evident when we see one object push or pull another object and change that object's position is simply a change in energy or an observable transfer of energy from the force exerting object to the target of that force, and this transfer of energy from one body or system of bodies to another body or system of bodies is "equal to the amount of

⁴⁰ Feynman, *The Feynman Lectures on Physics: Characteristics of Force*.

force exerted . . . moreover, the magnitude of force tells us how much an object's energy changes.⁴¹

⁴¹ Dr. George Stephans, Physics I: Classical Mechanics, (MIT Open Courseware: Massachusetts Institute of Technology, 2005). doi:https://ocw.mit.edu/high-school/physics/exam-prep/work-energy-power/forces-potential-energy/8_011_fall_2005_lec14.pdf.

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Christian Church (Disciples of Christ)
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Service to the Church

Salem Fork Christian Church
Dobson, NC
Pastor, 2004-2007

First Christian Church,
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Senior Pastor, 2007-2010

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