ABSTRACT

Title of Dissertation: THE POLITICS OF DISASTER: THE PHILOSOPHICAL
                           PRODUCTION OF RISK AND RESPONSIBILITY

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Failed government responses to severe disasters, including Hurricane Katrina, have led

to political repercussions for public institutions tasked with preventing, mitigating, and

recovering from disasters. This dissertation investigates the emergence of the public

expectation that governments have an obligation to manage their disordered effects. I look

to early modern philosophers Hobbes and Machiavelli to explicate the philosophical

production of risk and responsibility inherent in this political interpretation of disaster.

A careful reading of Machiavelli and Hobbes articulates the reconfiguration of

humanity's relationship with nature, the state, and misfortune. Individuals were no longer

to live in accordance with a harmonious nature, but transform it to better suit bodily

interests. Machiavelli describes this capacity for transformation as virtue while Hobbes

points to human artifice. Machiavellian virtue tamed variable fortune while Hobbesian

artifice imposed predictability on disordered nature through the institution of the

Leviathan. The resulting social contract arrangements of political authority established

citizens' duty of obedience and the sovereign's responsibility for the welfare of its citizens,

including during periods of disaster. Philosophy transitioned from the cultivation of the soul among the few to the universal provision of self-preservation.

These philosophical developments coincided with shifts in explanatory models communities used to attribute causality in disasters. I present four models that assign causality to divine will, random chance or accident, nature, and human agency. In the twenty-first century, the human agency model predominates as human intervention into nature poses challenges in disentangling human activity from natural processes. Earlier historical periods deployed different explanatory models that necessitated non-political remedies, obligation, and blame. The 1755 Lisbon earthquake serves as a waypoint between the early modern and contemporary interpretations of disaster where authorities, victims, and observers debated its cause. In disaster research, human agency is examined in vulnerability analysis which views disasters as the intersection between hazards and ongoing political, economic, and social processes that produce patterns of vulnerability such as those apparent in the "man-made" catastrophe Hurricane Katrina. The very technologies and development strategies intended to increase predictability and control over nature increase the disordered effects inherent in disasters.

The Politics of Disaster: The Philosophical Production of Risk and Responsibility

by

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CHAPTER 1.

INTRODUCTION

1.   INTRODUCTION

Several years after Hurricane Katrina made landfall in the Gulf of Mexico, devastating New Orleans and other coastal towns, journalist Jed Horne published a book entitled *Breach of Faith*.[1] The book, a journalistic account of the tragedy that befell the city when thousands of residents lost their lives, systematically traces the government's response to the disaster at the local, state, and federal levels. Like many accounts of the hurricane that have emerged in the ensuing years, it imparts a disturbing tale of bungled efforts, mismanagement, and willful neglect in the government's effort to shield residents from the devastating effects of the hurricane.

The title of the volume aptly illustrates the major sentiments running through the account. The breach, for instance, is a breach in the contract between government and governed that promises security in troubled times on behalf of the former for the benefit of the latter. Faith is the uncompromising belief in our collective, or political, capacity to muster a vigorous response to dire exigencies, whatever they might be, that arise in our environment. In Horne's account, and in many others, the response to the hurricane failed in both these senses.

As the event unfolded in near real time on screens globally, the perceived failure took on an especially political meaning as observers asked questions about what went wrong. As the emergency phase of the disaster retreated, people asked: Why did the levees protecting the city from storm surge fail? Why were so many residents left in the city? Why did so many people lose their lives? Why did developers in the Mississippi Delta region

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[1] Jed Horne, *Breach of Faith: Hurricane Katrina and the Near Death of a Great American City* (New York: Random House, 2006).

seemingly overlook catastrophic hurricanes in their plans? There are no easy answers to any of these questions, but the sentiment circumscribed in them is that each required a political response from some level of government that was not forthcoming. The failures of the government response saturated media coverage during and after the emergency phase of the disaster. Many observers issued damning criticisms of all levels of government from local responders to the federal agencies tasked with responding to declared disaster areas.

As a result, the harm caused by Hurricane Katrina was not confined to the physical damage so evident in pictures of the chaotic streets of the city. The damage was also felt politically as residents and viewers struggled to understand how a government with the resources and technological capacity of the U.S. could have allowed the levels of destruction witnessed there. The damages stemmed from the rains and severe winds, but also the resulting storm surge that left 80 percent of New Orleans under water as high as fifteen feet. The assessment report produced by the U.S. Army Corps of Engineers (USACE) that catalogued flood protection failures reported over fifty breaches in the region's 350 miles of levees, floodwalls, outfall canals and pump stations built over decades to protect the flood-prone city.[2] Around thirteen hundred people lost their lives in the storm, with the elderly accounting for 70 percent of the deaths. The financial toll is equally astounding, easily the most expensive storm in U.S. history. Direct losses

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[2] The USACE is a federal agency housed under the Department of Defense that employs 37,000 civilians and soldiers. According to the agency's website, the core mission of the USACE is to "deliver vital public and military engineering services; partnering in peace and war to strengthen our Nation's security, energize the economy, and *reduce risks from disasters* [emphasis added]." U.S. Army Corps of Engineers, "Performance Evaluation of the New Orleans and Southeast Louisiana Hurricane Protection System: Final Report on the Interagency Performance Evaluation Task Force," June 2009, http://biotech.law.lsu.edu/katrina/ipet/Volume%20I%20FINAL%2023Jun09%20mh.pdf, 1-3. See also http://www.usace.army.mil/About/Mission-and-Vision/, accessed January 29, 2017.

amounted to more than $20 billion in residential areas alone; an additional $7 billion was lost in public utilities and structures.[3]

Government failure was evident in the prevention stage, but also in the immediate response stage after the storm made landfall. In Spike Lee's documentary film about the storm, *When the Levees Broke*, residents in New Orleans are pictured with signs asking "Where is FEMA?" and "Where is President Bush?" For many of the region's most beleaguered, the answer was that the cavalry was at least a week away, more in some cases.[4] Particularly in Louisiana, poor decision-making at local levels inhibited mass evacuation and sheltering plans. The media pummeled the political authorities for neglecting to deploy the city's two hundred school buses for evacuating the city's most vulnerable residents.[5] Although the city had an emergency management plan, it was never implemented.

At the state and federal level, officials had very little situational awareness of the damage. As a result, federal officials were slow to respond to the states' request for federal assistance. Governor Blanco of Louisiana requested federal assistance before the storm

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[3] U.S. Army Corps of Engineers, "Performance Evaluation of the New Orleans and Southeast Louisiana Hurricane Protection System: Final Report on the Interagency Performance Evaluation Task Force," June 2009, http://biotech.law.lsu.edu/katrina/ipet/Volume%20I%20FINAL%2023Jun09%20mh.pdf, 1-3. See also http://www.usace.army.mil/About/Mission-and-Vision/, accessed January 29, 2017. But, other estimates place the damage at an astonishing $80 billion. Patrick Roberts, *Disasters and the American State: How Politicians, Bureaucrats, and the Public Prepare for the Unexpected* (Cambridge: Cambridge University Press, 2013), 5.

[4] Department of Homeland Security (DHS) and emergency management officials request that households have seventy-two hours of food, water, flashlights, radios, and other essentials in anticipation of not receiving government aid for that duration. William L. Waugh, Jr., "The Political Costs of Failure in the Katrina and Rita Disasters," *The Annals of the American Academy of the Political and Social Sciences* 604, no. 1(2006): 10-25.

[5] A goodly portion of the households that did not evacuate were those that did not have the resources to do so, including the elderly, disabled, the poor, and individuals that acted as caregivers for others. These factors particularly impacted the African-American population within the city. Waugh, Jr., "The Political Costs of Failure;" Keith Elder, et al., "African Americans' Decisions Not to Evacuate New Orleans Before Hurricane Katrina: A Qualitative Study," *American Journal of Public Health* 97, no. 1(2007): 124-129.

made landfall, but waited several days after before the assistance arrived. Although thousands of experienced emergency management personnel, medical personnel, and experienced volunteers were at the ready to respond, Federal Emergency Management Agency (FEMA) officials first ordered personnel to wait for instructions, but failed to follow through with the centralized deployment.[6] Likewise, the U.S. military's Northern Command (NORTHCOM) stood by with mobile communication centers, water, food, and medical supplies, but only received a request from FEMA officials for several helicopters.[7]

The bungled emergency response is now regarded as the archetypal failure of government disaster relief. Once federal assistance did arrive, it was slow to rescue individuals from trapped houses, recover the dead, and to deliver temporary shelters.[8] While the ferocity of the storm undoubtedly played a role in overwhelming the emergency response infrastructure, officials were well aware of their shortcomings in terms of planning and resources. A year earlier, Louisiana and FEMA officials conducted an exercise responding to a fictional storm similar to Katrina, called Hurricane Pam, that

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[6] In a press release after Katrina made landfall, FEMA officials requested that police and emergency responders *not* respond directly to requests from assistance without first being dispatched by "state and local authorities under mutual aid agreements and the Emergency Management Assistance Compact." State and local authorities, however, did not possess adequate on-the-ground situational awareness to efficiently direct resources to areas in need. FEMA, "First Responders Urged Not to Respond to Hurricane Impact Areas Unless Dispatched by State, Local Authorities," August 20, 2005, https://www.fema.gov/news-release/2005/08/29/first-responders-urged-not-respond-hurricane-impact-areas-unless-dispatched, accessed January 29, 2017.

[7] William R. Freudenberg, et al., *Catastrophe in the Making: The Engineering of Katrina and the Disasters of Tomorrow* (Washington DC: Island Press / Shearwater Press, 2009), 29. NORTHCOM is a geographic combatant command tasked with "homeland defense, civil support and security cooperation to defend and secure the United States and its interests." See the Command's website at http://www.northcom.mil/About-USNORTHCOM/.

[8] In some cases, state officials also had limited resources. State National Guards are among the first lines of defense for emergency management in disasters that overwhelm local resources. Portions of the Louisiana National Guard and the Mississippi National Guard were deployed to Iraq and Afghanistan when the storm struck. Not only were personnel lacking, but the equipment that remained was lackluster. One disaster researcher on the ground in the Gulf Coast reported that the Mississippi National Guard had only one remaining satellite phone to cover communications for the entire affected area. The National Guard convoy vehicles were also reported as noticeably dilapidated, some with large, rusted holes in the bodies, others appearing decades old. As the researcher observed, "Clearly, the good stuff was in Iraq." Freudenberg et al., *Catastrophe in the Making*, 29; Waugh, Jr., "The Political Costs of Failure."

mimicked the severe effects of the actual storm. Despite being aware of how ill-prepared the region was to a catastrophic storm, the recommendations generated by the exercise were not incorporated into local, state, or federal FEMA plans.[9]

The losses resulting from Hurricane Katrina were not limited to the immediate loss of life and economic damages; the disaster also had political repercussions. At the federal level, President Bush's perceived poor response decreased his approval ratings which may have helped Democratic victories in the 2006 midterm elections.[10] Locally, New Orleans mayor Ray Nagin won his reelection bid but was contested by twenty-one candidates. His re-election likely signals race differences in attributions of blame as African-Americans were more likely to hold the federal government responsible for the poor response instead of local politicians.[11] However, four- out of seven-members of the New Orleans city council lost their bid for reelection. Louisiana Governor Blanco, who was widely criticized for her handling of response efforts, did not seek reelection.[12] In addition to punishing voting behavior, residents of affected regions also demonstrated lower levels of trust in the

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[9] Roberts, *Disasters*, 125.

[10] President George W. Bush's approval rating dropped three points after Hurricane Katrina. Support among his own Republican Party reportedly dropped from 91 percent in January 2005 to 78 percent in August 2006. A majority of Americans also disapproved of how the Bush Administrated handled the federal response to the storm. Richard Morin, "Bush Approval Rating at an All-time Low," *The Washington Post*, September 12, 2005, http://www.washingtonpost.com/wp-dyn/content/article/2005/09/12/AR2005091201158.html. Another national survey conducted after the storm shows that 70 percent of Americans disapproved of the federal government's performance. Cherie D. Maestas et al., "Shifting the Blame: Federalism, Media, and Public Assignment of Blame following Hurricane Katrina," *Publius: The Journal of Federalism* 38, no. 4 (2008): 609-632. See also William L. Waugh, "Katrina and the Governors," *Public Organization Review* 9, no. 4 (2009): 343-351.

[11] J. Celeste Lay, "Race, Retrospective Voting, and Disasters: The Re-Election of C. Ray Nagin After Hurricane Katrina," *Urban Affairs Review* 44, no. 5(2009): 645-662.

[12] Waugh, "Katrina and the Governors."

government as a result of the failed response and pessimism regarding the time it would take their communities to recover normal functioning.[13]

1.1   THE POLITICAL INTERPRETATION OF DISASTER

The political response to Hurricane Katrina, given the resources and regulatory authority at the government's disposal, seems an appropriate, even natural one. Most governments are charged with emergency management for a wide range of disaster and catastrophic events. The range includes traditional disasters like hurricanes but also more exotic species such as asteroid impacts, solar flares, and extra-terrestrial events. The FEMA, housed in the Department of Homeland Security (DHS), is organized according to a theory of emergency management known as the "all-hazards approach" that positions its constellation of resources to be mobilized against this wide range of catastrophic events but also terrorist attacks such as 9/11.[14]

The puzzle motivating this dissertation is the public expectation regarding the government's obligation towards its citizens during events similar to those described above. Why is the government's failure to adequately respond to disasters perceived as a political failure? Why has the control and mitigation of natural disasters become a

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[13] Keith Nicholls and J. Steven Picou, "The Impact of Hurricane Katrina on Trust in Government," *Social Science Quarterly* 94, no. 2(2013): 344-361; Thomas Birkland and Sarah Waterman, "Is Federalism the Reason for Policy Failure in Hurricane Katrina?," *Publius: The Journal of Federalism* 38, no. 4(2008): 692-714.

[14] The inclusion of a wide range of events, whether hurricanes or terrorist attacks, under the rubric of disaster is driven in part by organizational interests. In many cases, the same actors, whether state authorities, FEMA, or the American Red Cross, respond to aid recovery in the immediate aftermath of hurricanes, chemical spills, and terrorist attacks alike. The actors must rely on similar organizational resources to address a wide variety of different events. From an applied perspective, identifying commonalities amongst the episodes is critical for fashioning modular responses under conditions of resource scarcity and demands for efficiency. Robert Bolin and Lois Stanford, "The Northridge Earthquake: Community-Based Approaches to Unmet Recovery Needs," *Disasters* 22, no. 1 (1998): 21-38. As Roberts describes, "The use of civil defense plans, equipment, and personnel to prepare for and respond to natural disasters as well as nuclear attack and terrorism came to be known as *dual use*." Patrick S. Roberts, *Disasters and the American State: How Politicians, Bureaucrats, and the Public Prepare for the Unexpected* (New York: Cambridge University Press, 2013), 68.

fundamental component of the social contract in the modern state? The public questions posed by observers during Hurricane Katrina point towards a political interpretation of the disaster. Throughout the dissertation, I seek probable answers to these questions through the juxtaposition of this political interpretation with previous interpretations that have produced quite different remedies while referencing developments in philosophy that account for the changing relationship between man, nature, and the state. Elucidating these developments highlights the evolving relationship between politics and the special class of events known as disasters.

I argue that the answer for the puzzle of the contemporary political interpretation of natural disasters lies in the advancement of three predominant themes in early modernity and into the Enlightenment. The first is the shift in philosophy as a means for the cultivation of individual virtue, limited to the purview of the few, to scientific investigation that aimed for the betterment of man's material condition universally. Secondly, one of the primary means for the betterment of material conditions was the imposition of predictability and control on nature, thereby mitigating the deleterious effects of chance, accident, and providence, including how those forces emerge or are perceived to emerge in disasters. Lastly, as the tired justifications for political authority, grounded in divine law or conventionalism, gave way to contractual political authority based on universal consensus, the betterment of man's material condition was offered as the proverbial carrot to the modern sovereign's stick. The sovereign responsibility for citizens' welfare, therefore, is the cornerstone of political legitimacy in the modern era.

I investigate how disasters have become potent political events by examining the evolution of these ideas through the theories of two key thinkers in early modernity:

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Niccolò Machiavelli and Thomas Hobbes. The chapters that follow discuss ideas that emerged in early modern philosophy which cultivated an understanding of our role vis-à-vis nature as one of mastery over the contingencies of the external world. The technological capacity afforded by scientific investigation has granted humanity unprecedented power to shape it. That power has enabled remarkable feats of human prowess that in turn have crucially shaped expectations about what properly lies in the realm of human agency or endeavor.

In analyzing the evolution of these ideas, I am not arguing for a direct, linear development in a "stage-theory" of history so that one philosopher's ideas are the necessary and sufficient cause of the work of his or her predecessors. Rather, the philosophical landscape is a dynamic one where views iteratively contend and vie with one another; yet, it is possible to pluck out a complex of competing ideas from the dynamic whole for consideration. I do not claim that the philosophical themes described above are the singular cause of shifts in the interpretations of disasters, but examining these trends through political theory is a beneficial means of explaining the historical developments.[15] Altogether, they were pervasive influences on the emergence of interpretations that explained disasters as resulting from independent, external forces (i.e., god, nature, or chance) to the contemporary political explanations of natural disasters (i.e., man and the state) and the subsequent government obligation that entails.

The core arguments are thus that the political interpretation results from shifts in modern expectations regarding the role of man and government in preventing, mitigating,

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[15] Waller Randy Newell, *Tyranny: A New Interpretation* (Cambridge: Cambridge University Press, 2013), 23-24.

and recovering from disaster events. As our technological capacity to effect changes in the natural world has increased, there has been a corresponding increase in our perception of the possibilities of human intervention in such events. Moreover, our perception of humanity's place in the causal chain of disaster events has exponentially amplified, particularly since the emergence of climate change science which places human activity at the epicenter of destructive weather patterns.

1.2   PHILOSOPHICAL AND APPLIED PERSPECTIVES

Despite the epochal importance of natural disasters to human history and the development of civilizations, not to mention the future impact of disasters through climate change, disasters themselves are rarely treated from a philosophical perspective.[16] Scientists have sought to understand, predict, and control the natural processes underlying the famines, hurricanes, tsunamis, and floods that have beleaguered human civilization. In recent decades, this scientific research has paired with disaster research in the social sciences, particularly sociology and geography. The field of study got its first start with the work of sociologist Samuel Prince who studied the social impacts of a 1917 munitions explosion in Halifax, Nova Scotia.[17] Since that time, research on disasters has predominantly been driven by market and organizational demands. Not surprisingly, the majority of funding for research in this area has favored applied studies that seek to improve the prevention of disasters and recovery efforts to restore affected communities to

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[16] Roberts understands disasters as actors in reference to actor network theory which explains how nonhuman phenomena act in the world in much the same way as human actors. As a result, disasters can be said to "shape people and places" in meaningful ways that might not have occurred had the disaster not taken place. Of course, the extent of shaping arguably depends on the geographical scope, severity, and duration of the disaster. Roberts, *Disaster*, 11.

[17] In 1917, Samuel Prince studied the collective behavior of the community in Halifax Harbor after the deadly explosion of two munitions ships. Prince's research highlights the "creative cultural adjustments" the community undertook to mitigate the effects of the disaster. Samuel Henry Prince, *Catastrophe and Social Change Based upon a Sociological Study of the Halifax Disaster* (New York: Columbia University Press, 1920).

normal functioning.[18] Disaster research in the social sciences as it is currently practiced

began with the National Opinion Research Center (NORC) in the early 1950s. The federal

government tasked NORC, staffed by physical scientists and sociologists, to research

possible civil responses to nuclear war during the Cold War. At the time, government

officials worried that attacks on the homeland would precipitate widespread panic and

societal breakdown. Since case studies were limited, and controlled experiments

impossible, the researchers viewed natural disasters as a quasi-experimental setting to

ascertain how society responded to extreme stressors.[19]

The early studies limited research questions to examinations of social behavior in the

immediate aftermath and recovery periods. The findings, often called the "good news" of

disasters, demonstrated that the emergency period of disaster immediately following the

impact is not characterized by panic, looting, and social disarray as was expected.[20] Instead,

researchers found that in this immediate period behavior was more likely to be altruistic,

giving rise to therapeutic communities that helped those affected psychologically recover

from the incident. Moreover, looting was rare, unless under specific circumstances.[21] Later,

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[18] Kathleen J. Tierney, "From the Margins to the Mainstream? Disaster Research at the Crossroads," *Annual Review of Sociology* 33 (2007): 503-525 and Mark Pelling, *The Vulnerability of Cities: Natural Disasters and Social Resilience* (Sterling, VA: Earthscan, 2003), 47.

[19] Charles E. Fritz and Eli S. Marks, "The NORC Studies of Human Behavior in Disaster," *Journal of Social Issues* 10, no. 3 (1954): 26-41. NORC efforts were eventually housed in the Disaster Research Center at the University of Delaware, which continues to be one of the leading research centers of its kind. In regards to the use of natural disasters as quasi-experimental setting for nuclear warfare, Gilbert notes, "Bombs fitted easily with the notion of an external agent, while people harmed by floods, hurricanes, or earthquakes bore an extraordinary resemblance to victims of air raids." Claude Gilbert, "Studying Disaster: Changes in the Main Conceptual Tools," in *What is a Disaster?: Perspectives on the Question*, ed. Enrico L. Quarantelli (New York: Routledge, 1998), 12. See also George Warheit and Russell R. Dynes, *The Functioning of Established Organizations in Community Disasters* (Newark, DE: University of Delaware Disaster Research Center, 1968).

[20] V.A. Taylor, "Good News about Disasters," *Psychology Today* 5 (1977): 93-94 and Amanda Ripley, *The Unthinkable: Who Survives when Disaster Strikes and Why* (New York: Crown Publishers, 2008), vii-viii. Early research was driven largely by systems theory that investigated interactive and interdependent dynamics of complex systems such as human society. Kathleen J. Tierney, "From the Margins to the Mainstream?".

[21] Beverley H. Cuthbertson and Joanne M. Nigg, "Technological Disaster and the Nontherapeutic Community: A Question of True Victimization," *Environment and Behavior* 19, no. 4 (1987): 462-483.

this consensus theory, as it came to be called, was tempered by the acknowledgement that prior research was confined to a limited period after a disaster event and conducted largely in the U.S. As Hurricane Katrina amply demonstrated, in the long-term disasters often exacerbate existing political, social, or economic divisions in society.[22]

The emphasis on applied disaster research has hindered theoretical innovations and in-depth conceptual development while improving emergency management.[23] After systems theory, the subsequent theoretical infusion in the field was the incorporation of social constructivism. It coincided with a noticeable shift towards explanatory models of disasters that emphasized the role that politics and society, and thus human activity, has in generating the disordered effects of disasters. This also meant a shift away from explaining disasters through the lens of the physical sciences which emphasized disasters as external agents acting on passive societies.[24] Hewitt calls this latter perspective the "disaster

See also Allen H. Barton, *Communities in Disaster: A Sociological Analysis of Collective Stress Situations* (Garden City, NY: Doubleday, 1969); Charles E. Fritz, "Disasters," in *Contemporary Social Problems*, eds. Robert K. Merton and Robert A. Nisbet (New York: Harcourt Brace & World, Inc., 1961), 651-694; Charles E. Fritz, "Therapeutic Principles Drawn from Disaster Studies," 1961, University of Delaware Disaster Research Center, http://udspace.udel.edu/bitstream/handle/19716/1325/HC%2010.pdf?sequenc.

[22] The consensus theory of disasters is associated with E.L. Quarantelli, the founder of the University of Delaware Disaster Research Center. E.L. Quarantelli and Russell R. Dynes, "Dissensus and Consensus in Community Emergencies: Patterns of Looting and Property Norms," *Il Politico* (1969): 276-291. See also Robert A. Stallings, "Conflict in Natural Disasters: A Codification of Consensus and Conflict Theories," *Social Science Quarterly* 69, no. 3 (1988): 569-586; Allen H. Barton, *Communities in Disaster;* Russell R. Dynes and Enrico L. Quarantelli, *Community Conflict: Its Absence and its Presence in Natural Disasters*, University of Delaware Disaster Research Center, 1975, http://udspace.udel.edu/handle/19716/382. Nye also compared two blackout incidents in New York, one in 1965 and the other in 1977. While the earlier blackout exhibited the pro-social characteristics described above, arson and looting occurred in the later blackout. He attributes the differences to political and economic conditions of the time, when unemployment, municipal insolvency, and rampant crime had demoralized the population of New York City. David Nye, *When the Lights Went Out: A History of Blackouts in America* (Cambridge, MA: The MIT Press, 2010), 105-136. Regarding Hurricane Katrina, see Tyrone A. Forman and Amanda E. Lewis, "Racial Apathy and Hurricane Katrina: The Social Anatomy of Prejudice in the post-Civil Rights Era," *Du Bois Review* 3, no. 01 (2006): 175-202 and Henry A. Giroux, "Reading Hurricane Katrina: Race, Class, and the Biopolitics of Disposability," *College Literature* 33, no. 3 (2006): 171-196.

[23] Tierney, "From the Margins to the Mainstream?," 503-525 and Stallings, "Disaster and the Theory of Social Order," 127-145. However, Tierney does acknowledge that recent funding from the National Science Foundation has enabled more expansive research on the societal dimensions of disaster research. Kathleen Tierney, *The Social Roots of Risk: Producing Disasters and Promoting Resilience* (Stanford, CA: Stanford University Press, 2014), ix-x.

[24] Gilbert calls this the "disaster as war paradigm" because the agent-based conception of disaster mimics the conditions of war insomuch as disasters happen to passive communities in much the same way bombing occurs.

archipelago" since it effectively separated disasters from human societies by only equating disaster with natural forces.[25] Constructivism, by contrast, emphasizes how people's interpretations of reality rather than their direct, objective apprehension of it, shapes theirs attitudes, beliefs, and actions.[26] The interpretations, in turn, are developed over time through repeated interactions until the subjective interpretation forms an assumption deeply embedded in society.[27]

Disaster researchers have used constructivism to explain how disasters are more than the product of natural forces, but have social components as well.[28] It has helped foster a broad research program that sees disasters emerging as much from the internal dynamics of society as the external forces of nature. From this perspective, disasters are the product of human or societal vulnerability arising from the decisions, or non-decisions, made by individuals, organizations, and political actors. Disasters result from everyday activities whose consequences are revealed when hazards occur. Disasters may "set the stage" or act as "triggers" but their effects are determined more by social vulnerabilities than

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Moreover, the effects produced by either are remarkably similar. Gilbert, "Studying Disaster," 11-18. Early on in the disaster research field, for example, Fritz defined disaster as "concentrated in time and space, in which a society . . . undergoes severe danger and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfillment of all or some of the essential functions of the society is prevented." Charles E. Fritz, "Disaster," in *Contemporary Social Problems*, eds. Robert K. Merton and Robert A. Nisbet (New York: Harcourt, Brace, and World, Inc., 1961), 651-694.

[25] Kenneth Hewitt, "The Idea of Calamity in a Technocratic Age," in *Interpretations of Calamity*, ed. K. Hewitt (Boston: Allen & Unwinn, Inc., 1983), 12-13.

[26] Tierney, *The Social Roots of Risk*, 26. In relation to disasters, Roberts describes social construction as a societal consensus "on the definition of the problem." Roberts, *Disasters*, 7-9.

[27] Wisner et al. distinguish between "strong" and "weak" constructionism in disaster research. Weak constructionism still allows for the impact of objective risk emanating from natural processes. Strong constructionism, on the other hand, denies the impact of objective risk, locating it primarily in social processes. Ben Wisner et al., *At Risk: Natural Hazards, People's Vulnerability, and Disasters*, (London and New York: Routledge, 2004), 18-19.

[28] Kenneth Hewitt, "Excluded Perspective in the Social Construction of Disaster," in *What is a Disaster?,"* ed. E.L. Quarantelli (London and New York: Routledge, 1998), 75-91.

measureable wind speed or rainfall.[29]   The theory that emphasizes the role of constructivism in disaster research is known as vulnerability analysis or vulnerability science.

Research has focused on myriad social, political, and economic factors and long-term historical processes that contribute to the hazardousness of place or geographic exposure and the increased vulnerability of some groups over others. The hazardousness of place is associated with vulnerable geographies; some places are more prone to natural hazards, including urban environments situated over earthquake fault lines, in floodplains, or in tornado-prone regions.[30] While geographic risk is important, other combinations of factors place some peoples' lives, property, and livelihoods in heightened danger.[31] The factors arise from ongoing social, political and economic processes. The economic marginalization of some groups means that they are more likely to reside in hazardous places and reduce their capacity to evacuate, migrate home, and gain support from social networks.[32] Certain classes or groups of individuals are also more likely to experience worse outcomes after disasters, including members of marginalized ethnicities or races, which are also frequently

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[29] Kathleen Tierney, *The Social Roots of Risk: Producing Disasters, Promoting Resilience*, (Stanford University Press, 2014), 41 and Hewitt, "Interpretations of Calamity," 24-25; Wisner et al., *At Risk*, 11-12.

[30] More recently, urbanization itself is considered to increase the vulnerability of populations to the effects of disasters. Mark Pelling, *The Vulnerability of Societies: Natural Disasters and Social Resilience* (Sterling, VA: Earthscan, 2003), 20-27 and Kenneth Hewitt, *Regions of Risk: A Geographical Introduction to Disasters* (New York: Routledge, 1997), 266, 40-42.

[31] Wisner et al., *At Risk,* 11.

[32] Shirley Laska and Betty Hearn Morrow, "Social Vulnerabilities and Hurricane Katrina: An Unnatural Disaster in New Orleans," *Marine Technology Society Journal* 40, no. 4(2006): 16-26; Susan L. Cutter, et al., "The Long Road Home: Race, Class, and Recovery from Hurricane Katrina," *Environment: Science and Policy for Sustainable Development* 48, no. 2 (2006): 8-20; James R. Elliot and Jeremy Pais, "Race, Class, and Hurricane Katrina: Social Differences in Human Responses to Disaster," *Social Science Research* 35, no. 2 (2006): 295-321; Alice Fothergill, Enrique GM Maestas, and JoAnne DeRouen Darlington, "Race, Ethnicity and Disasters in the United States: A Review of the Literature," *Disasters* 23, no. 2 (1999): 156-173; Eric Klinenberg, *Heat Wave: A Social Autopsy of Disaster in Chicago* (Chicago: University of Chicago Press, 2015); Daniel P. Aldrich, *Building Resilience: Social Capital in post-Disaster Recovery* (Chicago: University of Chicago Press, 2012).

captured in socioeconomic disadvantage. Gender is also implicated, especially as regards women due to cultural practices that inhibit their freedom of movement and promote caregiving roles, circumscribing their strategies to withstand disaster events.[33] Finally, private development policies, government regulations, and political decisions also increase vulnerability through environmental degradation, the creation of moral hazard dilemmas, greater exposure for marginalized communities, and compromised public risk perception prompted by elite obfuscation or disinformation regarding the actual extent of risk or danger.[34]

The turn to vulnerability analysis prompted by the infusion of constructivist theories of disaster, however, also suffers from an applied bias. Most is oriented towards increased knowledge of disasters to better interdict the deleterious effects of the events on vulnerable communities. The research explains the "how" of disasters but rarely treats the "why" of disasters. The "why" of disasters refers to the meaning or significance of disaster events, but also to explanations of disasters that point towards some causal agent. Where varying

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[33] Jörn Brikmann, "Assessing Vulnerability Before, During, and After a Natural Disaster in Fragile Regions: Case Study of the 2004 Indian Ocean Tsunami in Sri Lanka and Indonesia" (Working Paper, UNU-WIDER, no. 2008.50, Helsinki, Finland, 2008), https://www.econstor.eu/bitstream/10419/45110/1/571436080.pdf, 17; Eileen Pittaway, Linda Bartolomei, and Susan Rees, "Gendered Dimensions of the 2004 Tsunami and a Potential Social Work Response in Post-Disaster Situation," *International Social Work* 50, no. 3 (2007): 307-319.

[34] Rabindra Osti, Shigenobu Tanaka, and Toshikazu Tokioka, "The Importance of Mangrove Forest in Tsunami Disaster Mitigation," *Disasters* 33, no. 2 (2009): 203-213; Kenneth J. Bagstad, Kevin Stapleton, and John R. D'Agostino, "Taxes, Subsidies, and Insurance as Drivers of United States Coastal Development," *Ecological Economics* 63, no. 2 (2007): 285-298; David R. Godschalk, David J. Brower, and Timothy Beatley, *Catastrophic Coastal Storms: Hazard Mitigation and Development Management* (Durham, NC: Duke University Press, 1989); Freudenberg et al., *Catastrophe in the Making;* Carolyn Kousky and Richard Zeckhauser, "JARing Actions that Fuel the Floods," in *On Risk and Disaster: Lessons from Hurricane Katrina*, eds. Robert J. Daniels, Donald F. Kettl and Howard Kunreuther (Philadelphia: University of Pennsylvania Press, 2006), 59-73; Lee Clarke, *Mission Impossible: Using Fantasy Documents to Tame Disaster* (Chicago: University of Chicago Press, 1999); Lee Clarke, *Worst Cases: Terror and Catastrophe in the Popular Imagination* (Chicago: University of Chicago Press, 2006).

causal explanations are discussed, the shifts are rarely grounded by reference to underlying philosophical assumptions that correspond to differing opinions on causality.[35]

Tierney refers to this process as the social or cultural production of risk, where risk is the likelihood, or the perceived likelihood, of something going wrong and the subsequent impacts. Risk is apparent objectively but also subjectively as differing ideas regarding riskiness emerge and influence actions. She argues, in part, that risk is produced culturally through Enlightenment ideas privileging economic progress and confidence, sometimes misplaced, in technology to offer solutions to risk. However, her treatment of these important themes is sparse and she does not engage philosophical sources directly.[36]

Similarly, Huet explains the transition from divine to political interpretations of disasters. In doing so, she also references Enlightenment thought but her work fails to engage with the extensive research on disasters in the social sciences which could have enriched her perspective. Her neglect of vulnerability analysis when depicting the transition from natural to political interpretations is especially problematic.[37] Moreover, while engaging numerous historical cases, including the well-trodden Lisbon earthquake of 1755 and Plague epidemics, it is less clear how the others, including the "dis-astered

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[35] Stallings argues that disaster researchers that engage causal models do so without "analyzing the beliefs" that supports one model over another in different time periods. Robert Stallings, "Causality and 'Natural' Disasters," review of *Worst Cases: Terror and Catastrophe in the Popular Imagination*, by Lee Clarke; *Heat Wave: A Social Autopsy of Disaster in Chicago*, by Eric Klinenberg; *The Vulnerability of Cities: Natural Disasters and Social Resilience*, by Mark Pelling; *Acts of God: The Unnatural History of Natural Disaster in America,* by Ted Steinberg; *Perils of a Restless Planet: Scientific Perspectives on Natural Disasters*, by Ernest Zebrowski, Contemporary Sociology 35, no.3(2006): 223-227.

[36] Tierney, *The Social Roots of Risk*, 56-57, 59-60.

[37] Marie-Hélène Huet, *The Culture of Disaster* (Chicago and London: The University of Chicago Press, 2012), 51-53.

bodies" or "fragmented subjects" unmoored from final truths by Enlightenment thought are conceptually connected to disasters.[38]

1.3   MISFORTUNE AND DISASTER IN EARLY MODERN PHILOSOPHY

As a result, my dissertation contributes to the body of knowledge in both the philosophical and applied domains relating to research on disasters. I have selected early modernity as the appropriate period to interrogate the questions posed by modern responses to natural disasters because of its position on the cusp between two worlds, the ancient and the modern. It is quickly apparent in the works of theorists of this period that the philosophers' ideas were jarring, even shocking, to their readers. After all, Machiavelli's name quickly became synonymous with remorseless, utilitarian evil while Hobbes earned himself the moniker the "Monster of Malmesbury."[39] As a result, these founders of new modes and orders were required to launch thorough, sustained attacks on the predominant philosophical views of the time, particularly those of the ancient philosophers Aristotle and Cicero while incorporating reconfigured teachings from ancient Epicureanism.[40] The

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[38] Ibid., 9, 99-100.

[39] Hobbes was a notorious, if nonetheless influential, philosopher of his time. His seemingly atheistic and pessimistic views of human nature earned him colorful monikers from his critics such as the "Monster of Malmesbury," the "Devil's Secretary," and "Agent of Hell." Jon Parkin, *Taming the Leviathan: The Reception of the Political and Religious Ideas of Thomas Hobbes in England 1640-1700* (Cambridge: Cambridge University Press, 2007), 5.

[40] It is difficult to overstate the influence of Aristotle and Cicero during the Renaissance and into early modernity. One indication of Aristotle's influence in this period is the bounty of extant Latin manuscripts of his texts, numbering over two thousand. With only one exception, the ancient Greek physician Galen, no classical intellectual left a manuscript legacy as impressive as Aristotle's. The influence of Aristotelianism emerged not only from his direct works, but also the voluminous Greek, Latin, and Arabic commentaries on them. His logic and natural philosophy formed the cornerstone of intellectual life at the great European universities established in the Renaissance period. See Edward Grant, *The Foundation of Modern Science in the Middle Ages: Their Religious, Institutional, and Intellectual Contexts* (Cambridge: Cambridge University Press, 1996), 26 – 32. Cicero's legacy during this period is less well established in the scholarship today. Nearly seven hundred handwritten manuscripts of his texts are extant, attesting to the enduring demand for his works. His popularity in the Renaissance arose first in recognition of his consummate rhetorical skill. With the aid of Petrarch, the humanists quickly adopted Cicero's texts as critical guides, acknowledging the important role that rhetoric plays in governance and education. Cicero's works also helped to revive the classical conception of virtue. See Quentin Skinner, *The Foundations of Modern Political Thought: Volume One, Renaissance* (Cambridge: Cambridge University Press, 1978), 40, 88-94; Anthony Grafton, Glenn W. Most, and Salvatore Settis, *The Classical Tradition* (Cambridge: The Belknap Press of Harvard University Press, 2010), 142.

efforts expended in this regard present a well-articulated distillation of the ends of philosophy, man's role vis-à-vis nature, and the sovereign responsibilities that ought to accrue in light of these new circumstances. Before moving reviewing the philosophers' arguments, however, it is necessary to first discuss the concept of disaster.

1.4   DISASTERS AS DISORDER

Among the most difficult conundrums in disaster research is articulating a clear conception of the term disaster to expand analysis across a broad spectrum of cases. Indeed, disaster researchers devote several edited volumes that sought to address this long-standing issue.[41] The two most relevant categories of definitions involve the practical and the analytical.[42] Practical definitions of disaster are those established by legal conventions. In the U.S., those conventions include the Stafford Act of 1988 which establishes legal provisions for presidential declarations of disaster.[43] A presidential declaration of an emergency or disaster triggers aid administered through federal agencies to adversely affected states. In this practical definition, an event only rises to the level of a disaster once it is legally defined to be so. Since this dissertation does not seek to address questions relating to the political factors contributing to declarations and non-declarations of disaster, I conceptualize disasters through the lens of an analytic definition.

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[41] Ronald W. Perry and E.L. Quarantelli, eds., *What is a Disaster?: New Answers to Old Questions* (Lexington, KY: International Research Committee on Disasters, 2005) and E.L. Quarantelli, ed., *What is a Disaster?: Perspectives on the Question* (London and New York: Routledge, 1998).

[42] Robert Stallings, "Disaster, Crisis, Collective Stress, and Mass Deprivation," in *What is a Disaster?: New Answers to Old Questions*," eds. Ronald W. Perry and E.L. Quarantelli (Lexington, KY: International Committee on Disasters, 2005), 237-238.

[43] The Robert T. Stafford Disaster and Emergency Assistance Act of 1988 outlines the parameters of disaster declarations. The Act gave broad powers to the President in disasters and emergencies, but limited the authority of FEMA as the agency is required to wait to disperse aid to localities affected by disaster until an official declaration by the President, ultimately making it difficult for the agency to quickly pivot where help is needed in catastrophic situations. Roberts, *Disaster and the American State*, 84-87.

The analytic definition captures the qualities of disaster outside of narrow legal parameters. It seeks key attributes common to most occurrences considered to be disasters to enable cross-case comparison and research. The expression disaster is widely used in everyday language to describe occurrences replete with unfortunate circumstances. The colloquial use is applied to mundane, unexceptional happenings, such as a job interview or a date that did not go well. While these events have some impact on discrete individuals, their effects are more analogous to minor inconveniences or emotional perturbations that are quickly forgotten. The effects are minor as is the circumference of effect, limited to a few individuals, not many households, regions, or even civilizations. This dissertation, however, is concerned with occurrences that have significant disruptive effects across communities, societies, or regions.

I categorize disasters as a kind of disorder since they interrupt or suspend the order and predictability humanity has imposed on a disordered world, particularly through modern state institutions.[44] As a result, disasters are opportune moments for analyzing the relationship between man, nature, and the state as a disaster serves to highlight the exceptional intersection of all three. When a disaster event strikes, the destruction suspends and inhibits the societal patterns that constitute the state of normalcy. Disasters expose the fragility of modern society, including reliance on complex systems, patterns of inequality, and relationships of power embedded in organizational interests.[45] In this manner, disasters

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[44] Unless otherwise noted, the discussion on disasters as disorder is based on Robert Stallings, "Disaster and the Theory of Disorder," in *What is a Disaster?* ed. E.L. Quarantelli (London and New York: Routledge,1998), 127-145.

[45] Susan L. Cutter, Bryan J. Boruff, and W. Lynn Shirley, "Social Vulnerability to Environmental Hazards," *Social Science Quarterly* 84, no. 2 (2003): 242-261; Philip E. Auserswald et al., eds. *Seeds of Disaster, Roots of Response: How Private Action can Reduce Public Vulnerability* (Cambridge: Cambridge University Press, 2006); Wisner et al., *At Risk*; Clarke, *Mission Improbable*; Kousky and Zeckhauser, "JARing Actions that Fuel the Flood," 59-73; Charles Perrow, *Normal Accidents: Living with High Risk Technologies* (Princeton: Princeton University Press, 2011); Kathleen Tierney, "Social Inequality, Hazards, and Disaster*,"* in *On Risk and Disaster: Lessons from Hurricane*

serve to expose the dialectic between control and terror of the natural world, themes deeply embedded in modern thought. Our confrontations with disasters are events that serve as an azimuth check for where we stand vis-à-vis our environment: masters of our domain or its helpless victims.

Whole galaxies may collide in outer space, but unless the event infringes on human things, it is meaningless in human terms. Indeed, the core characteristic of a disaster is the resulting disorder, whether in terms of destruction of human life, property, infrastructure, laws, and even social bonds. In the absence of such disorder, a disaster cannot be said to have occurred. After a hurricane, a nuclear accident like the Fukushima Daiichi meltdown, or a tsunami, human lives are lost, property is destroyed, and the infrastructure that facilitates the smooth functioning of everyday life is devastated. In extreme cases, the disorder confounds patterns of political authority, social bonds, and norms regarding behavior or beliefs.[46]

Katrina, ed. Ronald J. Daniels, Donald F. Kettl, and Howard Kunreuther (Philadelphia: University of Pennsylvania Press, 2006), 109-128.

[46] Sims, for example, describes how the destruction of communications and transportation infrastructure in New Orleans following Hurricane Katrina contributed to the suicide of several police officers from the New Orleans Police Department. The damage prevented the officers from fulfilling their role as protectors and rescuers. In some cases, officers were unable to get adequate health care or food for children; unable to rescue others, who later perished; or respectfully care for the dead. Benjamin Sims, "Disoriented City: Infrastructure, Social Order, and the Police Response to Hurricane Katrina," in *Disrupted Cities: When Infrastructure Fails* (New York and London: Routledge, 2010), 41-54. Moreover, although it is difficult to point to a direct cause-and-effect relationship, the Black Plague is thought to have been a precursor to the Protestant Reformation after the virulent pestilence upset the relationship between the Church and its believers. The plague "made an issue out of the proper functioning of the clergy" and fostered an obsessive concern for the Judgment Day and salvation. Gottfried suggests that the rise of indulgences, a sanctioned shortcut to salvation, was the mechanism that connected numerous ongoing trends, including the Plague, to the Reformation. Robert S. Gottfried, *The Black Death: Natural and Human Disaster in Medieval Europe* (New York: The Free Press, 1983), 88. Similarly, Lindberg views the waves of plague as one event among several that gave rise to a culture of crisis, an upended world in which the church, its center, could no longer hold, culminating later in the Reformation. Carter Lindberg, *The European Reformations* (New York: Wiley-Blackwell, 2010) 24, 24-32. See also David Herlihy, *The Black Death and the Transformation of the West* (Cambridge: Harvard University Press, 1997), 81.

This dissertation views disaster as a state of disorder triggered by events originating in natural and technological processes.[47] As a result, in order to gain a better understanding of disaster, it is necessary to first understand the nature of order and the various agents, processes, and materials that are necessary to maintain it.[48] The concept, as it singles out order, does not focus on disaster as particular natural or technological agents. Instead, it looks at the nature of society, particularly at the enduring patterns of activity that constitute everyday functioning. One such quality is the blend of routines that are acted out regularly.[49] The very presence of these routines is what makes disaster in a society possible. The more complex and centralized the routines, the more vulnerable a society is to disorder. Modern society in the developed world, with its urban density, complex technological systems, and centralized infrastructure is ironically especially vulnerable to disorder. The very technologies and development strategies intended to increase predictability and control over nature increase the disordered effects inherent in disasters.[50]

Disasters pose the threat of political and social destabilization.[51] One important component of order in addition to routines is the simple belief in order. The belief is the

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[47] Chapter 4 discusses how natural and technological processes are intertwined, or in some cases indistinguishable, in modern disasters. The disaster research literature refers to these disasters as natech disasters.

[48] Goertz describes this component of a conceptual model a "negative pole." His model is a three-level framework that includes the basic level, secondary-dimension, and indicators. The basic level of a concept is one most hidden in the background and includes a negative- and a positive-pole. The positive pole of a concept is seen in concrete empirical examples, whether it is a disaster or democracy. The positive pole for the latter, for instance, might be present when free and fair elections are allowed in a state or political and civil rights are enforced. The negative pole, by contrast, is what manifests when the concept is not active. Again, going back to democracy, the negative pole, whether authoritarianism or anocracy, might be the persistence of sham elections or no elections allowed at all. Gary Goertz, *Social Science Concepts: A User's Guide* (Princeton and Oxford: Princeton University Press, 2012), 30-32.

[49] Huet similar describes disaster as form of disorder that suspends normal functioning by "threatening established patterns of collective behavior" which in turn threatens political authorities. Huet, *The Culture of Disaster*, 9.

[50] Tom Horlick-Jones, "Modern Disasters as Outrage and Betrayal," *International Journal of Mass Emergencies and Disasters* 13, no. 3(1995): 305-315; Stallings, "Disaster and the Theory of Political Order," 130.

[51] Porfiriev also explains disaster as "a state/condition destabilizing the social system that manifests itself in a malfunctioning or disruption of connections and communications between its elements or social units (communities, social groups, and individuals); partial or total destruction/demolition; physical and psychological overloads suffered

understanding of certainty and predictability in the continuity of everyday functioning as people go about the business of living their lives. That certainty relies on trust in government, public, and private institutions and the many anonymous individuals that oversee them. These individuals and institutions are charged with controlling risk for the rest of society. When these expectations are not met, there is a sense of betrayal of trust with a resulting uncertainty regarding the capacity of the institutions to appropriately control risk. The transference of the control of risk to political institutions is especially prevalent in the modern state which has a pervasive role in regulating the everyday affairs of its citizens. This puts the onus of risk control on the state with diminished avenues for citizens to make decisions regarding risk that can heighten the individual sense of vulnerability and distrust in the case of failure.[52]

Routines are the actions and interactions done repeatedly, every day, week, season or any other regular or expected interval. The routines provide structure to individual lives,

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from some of these elements; thus, making it necessary to take extraordinary or emergency countermeasures to reestablish society." Boris Porfiriev, "Issues in the Definition and Delineation of Disasters and Disaster Areas," in *What is a Disaster?* ed. E.L. Quarantelli (New York: Routledge, 1998), 61-62.

[52] As Hewitt observes, "There was . . . nothing at all the children of Aberfan, or their parents, could reasonably have done to avoid or prevent the coal tip disaster of 1966; or the poor families of Bhopal in the face of the toxic chemical cloud. But state institutions, safety equipment and regulations were supposed to take care of such things." Kenneth Hewitt, "Excluded Perspectives in the Social Construction of Disaster," in *What is a Disaster?* ed. E.L. Quarantelli (New York: Routledge, 1998), 82. The Aberfan coal tip disaster refers to a colliery spoil tip in a Welsh village that killed 116 children and 28 adults. The disaster led to political fallout as then Welsh MP Gwynfor Evans argued that had the event occurred in London or Eton, the government's response would have been more robust. The tepid response by the British government, which occurred at time of rising Welsh nationalism, convinced many Welsh voters that the ruling Labor Party of the time did not adequately represent working-class communities. The National Coal Board, headed by Lord Robens, attempted to attribute the disaster to a "natural unknown spring" underneath the tip that was clearly marked on local village maps. A Tribunal of Inquiry that followed the incident placed responsibility squarely with the National Coal Board. Martin Johnes, "The Aberfan Disaster is just One Facet of the Welsh Coal Tragedy," *Independent*, http://www.independent.co.uk/arts-entertainment/the-aberfan-disaster-is-just-one-facet-of-the-welsh-coal-tragedy-a7365301.html, accessed January 29, 2017; Martin Johnes and Iain McLean, "Echoes of Injustice," *History Today* 50, no. 12 (2000): 28. The Bhopal disaster occurred in Bhopal, India when a Michigan-based Union Carbide pesticide plant leaked methyl isocyanate into the atmosphere, exposing hundreds of thousands to its toxic effects. An estimated 3,800 died immediately, but thousands more are believed to have died prematurely as a result of the exposure. Union Carbide officials attempted to shift responsibility to its Indian subsidiary and claimed that the gas leak resulted from sabotage by Sikh extremists, a claim ultimately found to be groundless. Union Carbide accepted responsibility for the disaster and awarded survivors $470 million. Edward Broughton, "The Bhopal Disaster and its Aftermath: A Review," *Environmental Health* 4, no. 1 (2005): 6.

and taken together, constitute political and social systems. Exceptions are the breakdowns or interruptions in routines. However, the exceptions are themselves routines insomuch as all are subject to decay and degeneration over time, requiring repair.[53] In some cases, routines are established to deal with these exceptions, called exception routines, which are routinized processes that are deployed in the event of breakdowns. Exception routines point towards the routines in society that are particularly important because they have been singled out for contingency plans in the case of disruption. One example is traveling over a bridge as routine; the exception occurs when the bridge is washed out by flood waters, inhibiting daily travel over the bridge. The exception routine is recovery of the bridge to normal functioning by state agencies. Disruptions in communication and transportation are especially damaging to the normal functioning of affected communities.[54] Of interest here are exception routines that are controlled or under purview of the state. In developed societies, characterized by high divisions of labor, exception routines are developed and carried out by formal organizations, such as those controlled by local, state, or federal governments, whether police, emergency response, fire departments, or FEMA.

The emergence of exception routines occurs when the exceptions themselves are widely regarded as abnormal. The abnormality demands some sort of remedial interdiction to quash the perceived disorder. Moreover, an exception routine must also be technologically or culturally possible. If death is seen as a normal function of the life

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[53] Graham and Thrift argue that the continual repair and maintenance required for everyday routines present in order, such as repair of infrastructure or computer programs, is an overlooked component of order in social theory. Stephen Graham and Nigel Thrift, "Out of Order: Understanding Repair and Maintenance," *Theory, Culture & Society* 24, no. 3 (2007): 1-25.

[54] A loss of communications prevents emergency responders from locating information as well as residents and authorities from disseminating information to those whom the information could benefit. Gilbert, "Studying Disaster," 11-18.

process, then fatal illnesses are not exceptional. But, if death and illness are regarded as abnormal, fatal illnesses are something to be struggled against, to be overcome. When this occurs, exception routines are established, such as the multi trillion-dollar health care industry in the U.S.

The development of state-controlled exception routines for disasters is a recognition that order constitutes normal functioning and that the technology for the necessary remedial actions to restore order are readily available. The state's primary responsibility as it developed in early modernity is the establishment of order and security.[55] The exception routines currently practiced by the state as regards disasters are thus intimately intertwined with the credibility of government institutions. State legitimacy is put into question when disasters occur, legitimacy that can be seriously hampered when the exception routines are not properly executed or fulfilled. The philosophical developments underlying these shifts are addressed by a careful reading of two thinkers in early modernity, Niccolò Machiavelli and Thomas Hobbes, who stood on the cusp between different concepts of state responsibility, our relationship with the external world, and remedies for misfortune.

1.5   THE POLITICS OF DISASTER

The opening section in the Introduction discussed the political repercussions of Hurricane Katrina. Politicians at the local and state level lost bids for re-election, President Bush's already battered approval ratings fell, and to varying extents, the general public lost trust in government to carry out its missions to protect the public. Disasters are political in

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[55] Later, in addition to order and security, the state was also expected to ensure economic prosperity. Economically, predictability is required for informed decision-making by business leaders and other economic actors. Government actions, in myriad ways, whether through regulations or maintaining public infrastructure, facilitates commerce and financial transaction. Stallings, "Disaster and the Theory of Social Order," 142.

part because not only do the effects have to be managed, but the disaster also has to be explained:[56] Why did the levees fail? Why did it take so long for federal relief to arrive? The explanations are owed under certain circumstances. If disasters are perceived as acts of a god, or outside the realm of human control, then political accountability is a minor issue. As society developed exception routines for the effects of disaster, and remedial actions became technologically plausible, more societies have held their political leaders and public officials accountable for the management of immediate response and recovery as well as mitigation and preparedness programs designed to limit community exposure to natural hazards.[57]

As a result, disasters create opportunities for political unrest. In some extreme cases, disasters act as critical junctures for regime change when inept handling by state generates political opposition.[58] The effects are most pronounced when disasters losses are high, the regime is repressive, or the state has experienced prior political unrest.[59] By contrast, when governments involved immediately deploy an effective response, it can help retain the status quo or even enhance the legitimacy of the regime.[60] When an earthquake hit

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[56] Richard Stuart Olson, "Towards a Politics of Disaster: Losses, Values, Agendas, and Blame," *International Journal of Mass Emergencies and Disasters* 18(2): 5-36.

[57] Ibid., 5-36.

[58] Fred Cuny, *Disasters and Development* (Oxford: Oxford University Press, 1983); Michael Watts, "On the Poverty of Theory: Natural Hazards Research in Context," in *Interpretations of Calamity*, ed. Kenneth Hewitt (Boston: Allen & Unwinn, Inc., 1983), 231-262; Vincent T. Gawronski and Richard Stuart Olson, "Disasters as Crisis Triggers for Critical Junctures? The 1976 Guatemala Case," *Latin American Politics and Society* 55, no. 2 (2013): 133-149; Richard Stuart Olson and Vincent T. Gawronski, "Disasters as Critical Junctures? Managua, Nicaragua 1972 and Mexico City 1985," *International Journal of Mass Emergencies and Disasters* 21, no. 1 (2003): 3-35; Mark Pelling and Kathleen Dill, "Disaster Politics: Tipping Points for Change in the Adaptation of Sociopolitical Regimes," *Progress in Human Geography* 34, no. 1 (2010): 21-37.

[59] A. Cooper Drury and Richard Stuart Olson, "Disasters and Political Unrest: An Empirical Investigation," *Journal of Contingencies and Crisis Management* 6, no. 3 (1998): 153-161.

[60] J.M. Albala Bertrand, *Political Economy of Large Natural Disasters: With Special Reference to Developing Countries* (Oxford: Clarendon Press, 1993);

Managua in 1972, devastating the Nicaraguan capital, millions of dollars in international aid for the recovery poured into the country. After it was discovered President Somoza and his allies siphoned most of the aid for their personal enrichment, the corruption helped galvanize support for the *Frente Sandinista de Liberación Nacional* (FSLN), also known as the Sandinistas.[61] Similarly, the 2010 earthquake and tsunami in Chile lowered public support for the consolidating democracy, leading to the mobilization of political opposition. The significant stress on the Chilean regime led then President Sebastián Piñera to refer to the student strikes and occupation that followed a "second earthquake."[62]

The political repercussions, whether large or small, associated with disaster effects are best understood through the logic of the social contract.[63] A social contract, as in the theory of Thomas Hobbes, is a consensual agreement regarding the distribution of rights and responsibilities of the state and its citizens. Citizens agree to abide by the laws established by the sovereign in exchange for security provided by the sovereign. Later, John Locke furthered this logic by emphasizing comfortable self-preservation in terms of material or

[61] Augusto César Sandino, "The 1972 Managua Earthquake: Catalyst for Revolution," in *Earthquakes in Human History: The Far-Reaching Effects of Seismic Disruptions*, ed. Jelle Zeilinga De Boer and Donald Theodore Sanders (Princeton: Princeton University Press, 2005), 238; Elizabeth Dore, "Nicaragua: The Experience of a Mixed Economy," in *Latin American Political Economy: Financial Crisis and Political Change*, eds. Jonathon Hartlyn and Samuel A. Morley (Boulder, CO: Westview, 1986), 322-323.

[62] Jose Miguel Cabezas and Patricio Navia, "Geological and Social Cleavages: The 2010 Earthquake, the Left/Center/Right Divide and Presidential Approval in Chile," Unpublished Manuscript, Columbia University, n.d., as quoted in Ryan E. Carlin, Gregory J. Love, and Elizabeth J. Zechmeister, "Natural Disaster and Democratic Legitimacy: The Public Opinion Consequences of Chile's 2010 Earthquake and Tsunami," *Political Research Quarterly* 67, no. 1 (2014): 3-15.

[63] Naomi Zack, "Philosophy and Disaster," *Homeland Security Affairs* 2, no. 1 (2006): 1-13. However, Zack's treatment is brief and incomplete. See also Mark Pelling and Kathleen Dill, "Disaster Politics: Tipping Points for Change in the Adaptation of Sociopolitical Regimes," *Progress in Human Geography* 34, no. 1 (2010): 21-37, who couch their explanations of political change following disasters in social contract theory. Like Zack, however, their treatment of social contract theory is quite cursory.

economic prosperity.[64] When the state does not adequately fulfill its role in the bargain, as may be the case with disaster, then it can lead to regime instability as a demonstration of a "manifest failure" of the terms of the social contract. [65]

1.6   OBLIGATION AND BLAME IN DISASTERS

Why should philosophy concern itself with disasters? Disasters have philosophical implications because they invoke responses of obligation and blame. The events precipitating disasters, whether hurricanes, famines, or floods, are singled out from infinite happenings insomuch as they are meaningful occurrences to humanity.[66] Public expectations regarding the government's expected response is sufficiently high that the mustered response frequently falls short. Misfortune, particularly misfortune of the scope and magnitude of disasters, prompts a constellation of questions that shape public responses to the event. Questioning begins with the search for explanation: "why has this misfortune occurred in this time and this particular place?"[67] The question signals the certainty that there is a causal narrative lurking in each misfortune that invites human intervention, whatever form that may take. The questions surrounding each misfortune are intended to answer the dual problem of blame and obligation; blame identifies the

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[64] John Locke, *The Second Treatise of Government*, ed. Peter Laslett (Cambridge: Cambridge University Press, 2004), Chapter VII, 88.5-10.

[65] Pelling and Dill, "Disaster Politics," 21-37.

[66] As Dudley notes, "Because human beings are constantly on the lookout for events . . . that are meaningful, they develop a trained 'eye' for the meaningful and pay no attention to what is not meaningful." John Dudley, *Aristotle's Concept of Chance: Accidents, Cause, Necessity, and Determination* (Albany, NY: SUNY Press, 2012), 23.

[67] Douglas describes how communities use misfortune as an opportunity to solidify the constitutional bonds of a society. The blame is assigned to agents already in some way unpopular, thus the unwed mother who dies in childbirth is assigned responsibility for her demise owing to her moral impurity. Douglas calls this relationship between morals and misfortune "forensic danger" and saw it as a tool to reconstitute societal values following misfortune. Mary Douglas, *Risk and Blame: Essays in Cultural Theory* (London and New York: Routledge, 1992), 5-7.

responsible agent and obligation binds them to remedial action.[68] It could also be said to generate villains, and subsequent emotional outrage, that mobilizes action against the responsible party.[69] Communities habituated to certain categories of misfortune develop a fixed repertoire of possible causes to explain the event. In turn, the explanation recommends a repertoire of prescriptive obligatory actions from which to pluck the appropriate response. As a result, the answers to the questions of blame and obligation shape the tenor of the response to the experience of misfortune itself.

1.7   DISASTERS AS THE WORK OF NATURE, FATE, GOD, AND MAN

Throughout history, there appears to be four basic explanatory models that societies adopt as causal explanations for misfortune or disaster. The four models are disasters as acts of a god, disasters as random chance or accident, disasters as acts of nature, and disasters as the work of man.[70] The last, disasters as resulting from the work of man, is arguably the most predominant explanation in the developed world, although it exists in tandem with the other explanatory models which reside on the fringes of public opinion.[71] This appears to hold for researchers that study disasters, but also the public which is largely

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[68] Although, Jasper differentiates between two types of blame, causal and remedial. The former indicates an agent has caused an event while the latter simply suggests that the agent has responsibility for cleaning up the mess. In this regard, "If people believe their government should have foreseen or prevented a catastrophe, or should have done more to help afterward, they may become indignant even without believing that the government actually caused the calamity." James M. Jasper, "The Emotions of Protest: Affective and Reactive Emotions in and around Social Movements," *Sociological Forum*, vol. 13, no. 3(1998): 397-424.

[69] Ibid., 397-424; Cass R. Sunstein, *Worst-Case Scenarios* (Cambridge, MA: Harvard University Press, 2007), 63-64.

[70] Stallings, "Causality and 'Natural' Disasters," 223-227.

[71] As Stallings notes, "Human agency is now taken for granted as one of if not *the* [emphasis in the original] true cause of natural disasters. Stallings, "Causality and 'Natural' Disasters," 226. See also Tierney, *The Social Roots of Risk*, 27; Huet, *The Culture of Disaster*, 8. One caveat is the treatment of disasters by physical scientists which tend to focus on the natural processes that give rise to disasters. Zebrowski clearly anthropomorphizes disaster as Mother Nature, stating at one point that "Mother Nature doesn't worry about conforming to mere human expectations. She does what she does, and if we want to understand it, it is up to us to pay attention to *her* [emphasis in the original] . . ." Ernest Zebrowski, *Perils of a Restless Planet: Scientific Perspectives on Natural Disasters* (Cambridge: Cambridge University Press, 1997), 37.

reluctant to attribute disasters solely to nature, a god, or fate.[72] With the benefit of science and technology, the explanations and remedies offered for disasters in other times and places appear archaic and ineffectual. According to the sources chronicling a 1348 earthquake in Italy, for example, observers linked the tremors to divine retribution for corrupt sovereigns, usury, and a sign of the imminent apocalypse.[73] During the Black Plague, when divine and moralistic explanations for misfortune predominated, the remedies emphasized expiatory actions designed to purify a community, including ritual self-flagellation and cults dedicated to saints that acted as intercessors between depraved humanity and the divine, seeking forgiveness or to forestall future misfortune.[74]

One of the key differences separating the interpretation of disasters from one place or time to another is the varied logics used to answer the questions prompted by the resulting disorder. In earlier centuries, the mash-up political response to Hurricane Katrina would not have loomed so large in the minds of observers had it registered at all. Hurricanes, like other disasters, are atmospheric processes that release tremendous destructive forces as they make contact with human communities. Political authority was wielded for the aggrandizement of the rulers, for the cultivation of virtue or excellence among its citizens in accordance with their nature, or to prepare people for eternal salvation. Moreover, what individual or collective power could hope to subvert such abstract, powerful forces? When

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[72] Robert Stallings, "Causality and 'Natural' Disasters," 226 and Dalia Sussman, "Poll: Most Say God Not a Factor in Hurricanes," ABC News, October 2, 2005, http://abcnews.go.com/Politics/PollVault/story?id=1174220&page=1.

[73] Although, Rohr notes that the interpretations of the event depended in part on the individual's education and background. Christian Rohr, "Man and Natural Disaster in the Late Middle Ages: The Earthquake in Carinthia and Northern Italy on 25 January 1348," *Environment and History 9*, no. 2(2003): 127-149.

[74] Lane Baker, "Clashing Crowds: The Decline of the Flagellants in Strasbourg, 1349," *American Historical Review* 86 (1981): 533-552; Joseph Patrick Byrne, *The Black Death* (Santa Barbara, CA: Greenwood Publishing Group, 2004), 93-96.

Hurricane Katrina's churning mass of clouds came into contact with the Gulf of Mexico region, it released drenching rains and 125 miles-an-hour wind on fragile bodies and properties. The natural processes seem far removed from the possibility of human interference.

The brief account regarding the political repercussions of Hurricane Katrina brings our attention to the ways in which the modern state is the inheritor of certain ways of thinking about politics and disaster events. That is, over time philosophical ideas and beliefs have shifted to accommodate new ways of thinking about disasters.[75] Before the philosophical shift, it was perhaps unthinkable, or at least considerably unusual, to understand disasters as political problems.[76] Over the course of modernity, disaster events have shifted from the category of accidents, in which no particular agency is responsible other than an abstract natural or divine force, to events in which agency is attributable to human action or inaction. The predilection to attribute human causality in so-called "natural" disasters compounds their political repercussions by marrying sovereign responsibility with the onus of obligation and blame.

Disasters are happenings that escape our best efforts at foresight, happenings that cannot be averted due to the inscrutability of the causal chain and our subsequent inability to impact outcomes. As a result, causality is either wholly dismissed or assigned to abstract

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[75] Tierney discusses these shifts in terms of the cultural production of ideas. However, she pays scant attention to philosophical developments that fostered the emergence of the cultural dimensions she highlights: belief in material progress and technological hubris. Instead, she uses the theories of social construction and framing to explain the cultural production she singles out. Tierney, *The Social Roots of Risk*, 50, 56-57, 59-60.

[76] Tierney uses Pierre Bourdieu's idea of "fields" to describe this sort of bounded rationality. Fields are "social arenas characterized by collectively shared systems of belief, expectations, and practices." When immersed in a particular field, it can render "certain constructs and interpretations . . . literally unthinkable." Tierney, *The Social Roots of Risk*, 54. See also Pierre Bourdieu, T*he Logic of Practice* (Stanford, CA: Stanford University Press, 1980) and Pierre Bourdieu, *Distinction: A Social Critique of the Judgement of Taste* (London: Routledge, 1984).

divine or natural forces that are largely inaccessible for human intervention unless through specially designated classes that can act as intercessors between man and the unknowable, such as priests. The remedies, then, are found primarily among priests whose responsibility it is to intercede in the relationship between the gods and man. However, within the political interpretation that dominates most explanations of such events today, the agency is associated most clearly with human activity. As a result, the remedies or responses to the event are found in political institutions.

1.8   CHANGING REMEDIES FOR MISFORTUNE: MACHIAVELLI AND HOBBES

Ancient Greek and Latin philosophers, such as Aristotle, Lucretius, and Cicero, are good sources for gaining insight into the interpretation of misfortune as resulting from chance, accident, or the divine and the remedies appropriate to such events. The philosophers recognized the influence of misfortune in our lives, but recommended quite different remedies for mitigation than the highly technological and bureaucratic ones so common today. Prudence, foresight gained through long experience, is offered as one remedy against the vagaries of fortune, with the recognition that, due to the wide variability of fortune, it is a remedy which frequently falls short of its aim. Prudence fails when the parameters of a problem are widely divergent from experiences of the past.

Consequently, among the ancients, philosophy itself is depicted as a potent remedy against the perils of misfortune. If in modernity knowledge is power, then in the ancient Western philosophical tradition, knowledge is virtue. Virtue, understood in these terms, provided the philosopher a cushion against contingency since virtue granted happiness

through the realization of man's fullest potential.[77] Philosophy's cultivation of virtue is a medicine for the soul that quiets the anxiety driven by the inability to control for all external circumstances, whether suffering under a tyrant, surviving a natural disaster, grief over loss, or even the existential pangs experienced when contemplating one's own mortality.

Early modernity solved the problem of misfortune in a much different fashion. If misfortune was a problem of virtue in ancient philosophy, the early moderns grappled instead with limiting the influence of chance and accident by extending man's control over it. This also required constructing a world in which the divine played a limited or inconsequential role to provide room for human action. In this manner, happiness became a matter of power stemming from knowledge, not virtue. It is notable, however, that the early moderns, particularly the ones treated in this dissertation, rarely approached human happiness in the same manner as the ancients for whom it was an important preoccupation. Instead, the philosophy of the early moderns is predicated on the assumption that human happiness is achieved with the provision of material, external goods available through the control or exploitation of nature.

Niccolò Machiavelli sought to expand man's control over the external world, a definitive shift from thinkers before him that used philosophy to adapt to less favorable circumstances where prudence had failed. In doing so, he expanded the realm of the possible, including the possibility of interdicting the disordered effects of disaster. His faith in man's capability to alter the world in his own interests is the hallmark of modernity.

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[77] Certainly, there was disagreement among the major philosophical schools of the time regarding the extent to which virtue could provide human happiness. The latter position most closely aligns with Stoicism for whom virtue is the highest good and therefore the only good needed for a life of happiness. In other major schools, such as the Academics skeptics, it was argued that other external goods like physical health and friendships were also necessary for happiness. See chapter 2 for a full treatment of the argument.

Man, finally, is not limited to ineffectually railing at fate, but can actively alter it. [78] This posture towards the external world is revealed in the political interpretation of disaster. It supposes that human action had a hand in producing the misfortune, but also the confidence that human ingenuity can resolve the source of misfortune.

Machiavelli's new virtue also required a reconfiguration of human nature. Although Machiavelli is often counterpoised to ancient philosophy, and certainly he presents his political theory as novel, he owes much to the ancient Epicurean school, particularly Lucretius. Borrowing from Epicureanism, Machiavelli explains human nature in terms of selfishness. Since man is by nature a selfish, desiring being, the pursuit of self-interest is the pinnacle of human excellence. Human excellence is embodied in the prince, who by dint of his virtue, establishes new modes and orders, which is nothing less than remaking his principality to suit his own interests.

In doing so, virtue is reconfigured from its basis in conventional morality to a basis in the effectual truth. By using the effectual truth as the barometer of praiseworthy or blameworthy action, one can appear to be just while practicing injustice so as to achieve optimal outcomes aligned with self-interest. This means acting immorally when necessary, such as using cruelty or dishonesty, to achieve the best outcomes. Many may want to think that acting morally produces moral outcomes, but in an external world devoid of divine providence or natural order, it is best to act not in alignment with how the world ought to

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[78] As Calhoun capably observes, "moderns are apt not only to rail against fate but also to believe we can alter it. The notion of risk is immediately joined by that of risk management. And certainly through technology, trade, scientific understanding and creative energy, we have in fact remade the world in many ways. We have time and again traversed what seemed to be the limits of human existence. We are reluctant to believe that any aspect of fortune is out of our control, dictated by stars or gods. Yet, we certainly have not escaped disasters." Craig Calhoun, "A World of Emergencies: Fear, Intervention, and the Limits of Cosmopolitan Order," *Canadian Review of Sociology/Revue Canadienne de Sociologie* 41, no. 4 (2004): 373-395.

be, but how the world actually is. The pinnacle of self-interest is realized in those with large appetites and desires that seek political or military glory. This is a departure from the Epicurean school, whose teachings recommended a retreat from political life to calm anxieties generated by unfulfilled desires. Instead, virtue is best realized through action, not contemplation. Moreover, politics that is concerned solely with the fulfillment of material desires is now respectable. Politics is the proper realm for realizing selfish interests, later interpreted by Thomas Hobbes as security.

The new virtue is primed for the conquering of fortune. Fortune is the quality or tenor of things in the external world that hinder or facilitate human outcomes. The virtue is the new remedy needed to neutralize the influence of fortune. Being virtuous in this regard means relying on "one's own arms," or to engage in action that relies not on god or luck to secure favorable outcomes, but one's individual resources. This virtue is necessary because of the variability of nature and thus the variability of human affairs. It represents the ultimate challenge to the virtuous prince as conquering fortune requires continual adaption and accommodation. Virtue is cultivated through exploitation of natural ability, foresight, learning adaptive measures undertaken by virtuous historical figures, and above all, moral flexibility accompanied with a flair for appearing just. While a myriad of character postures are required to conquer fortune, whether liberality or cruelty, Machiavelli singles out boldness and impetuosity as the surest path to glory.

Machiavelli does not base the authority of his new virtue on divine or natural law. Instead, the "truth" of virtue is demonstrated only through its effects. This required separating the external world from a natural or divine will that superimposes its own will on human things; it is lesson well-learned by posterity. If the action produces desirable

effects in accordance with one's interests it can be said to be virtuous. That is, philosophy is now in the business of procuring useful things, in the pursuit of utility, not the pursuit of truth or wisdom. And what is more useful than power to secure one's interests, howsoever the interests are conceived?

But, explaining the philosophical antecedents of the political interpretation of disaster would be incomplete if it rested with Machiavelli. He is concerned with lessons that enable princes to establish new modes and orders, but once the prince is in power, Machiavelli has little to tell him about ruling justly. He makes only brief mentions of appropriate and inappropriate laws to ensure stability. So, Machiavelli is neither concerned with good governance as an end in itself nor does he claim that authority rests on the consent of the governed in a social contract.[79] Thus, the government and governed are not in a mutually binding agreement outlining the rights, duties, and obligations of each. The legitimacy, or non-legitimacy, of political authority is not dependent on the fulfillment of the terms of the contract. Machiavelli has furnished a crucial ideational component of the political interpretation of disaster, that humanity has the capacity to interdict misfortune or disaster, but not the political impetus to do so.

Machiavelli's aggrandizement of political and martial glory is inimical to the order that Thomas Hobbes seeks to secure through the implementation of the commonwealth. Hobbes allows no meaningful distinction between those with large appetites for ruling and those with smaller appetites for security. That is, the gluttonous desires of the glory-seekers do not provide any basis for political authority. Instead, Hobbes is the first philosopher in early

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[79] I would not discount Machiavelli as a teacher of good governance as a useful tool for the new prince, but he is not concerned with the morality or immorality of any particular regime.

modernity to propose the radical equality of man. Certainly, men have different desires from one another, suited to their particular character; but none has such wisdom, or such strength, that it naturally sets him above the rest. Men share only one trait in common, their mortality and vulnerability to death at the hands of their neighbors. It could be said that the ultimate misfortune men suffer in the state of nature bereft of the benefit of politics is disorder. In this regard, the state of nature is coterminous with disaster conceived as disorder.

Hobbes's political science, much like Machiavelli's, is the study of man. Also, similar to Machiavelli, the discussion of the politics best suited to man first necessitates an investigation of beginnings. The beginnings that particularly interest Hobbes are those regarding human nature. Thorough investigation of the issue is necessary since without the knowledge it is not possible to effectively tame the glory-seekers that contribute to disorder. But, god and nature are silent on the issue, providing no prescriptions for appropriate and inappropriate behavior so that men can come to live together peacefully. Despite man's propensity in offering personal opinions on the matter, all are based on erroneous logic. Hobbes situates humans in a cosmos derived from the teachings of ancient Epicureanism, which is dully composed of matter in motion, atoms clashing together randomly that have nevertheless come together in significant patterns, creating the known world in the process. Man himself is shaped in accordance with these precepts, prodded into motion towards and away things through appetite and aversion.

Hobbes's skepticism about gaining meaningful knowledge under these circumstances is tempered by a singular, fundamental element of human nature, the desire for self-preservation. This desire, the lone desire that all share equally, is apparent in the shallowest

examinations of self. The transparency of the knowledge is precisely that on which Hobbes can build a lasting order, the desire for security, a benefit afforded not just the superlative individuals in Machiavelli's philosophy, but all men equally and universally, ensured by the strength of a powerful sovereign.

The implementation of the commonwealth is accomplished through human artifice. In this regard, Hobbes's artifice is similar to Machiavelli's virtue. Both are wielded to conquer the misfortune and disorder that bedevils humanity. That is, artifice and virtue are equally audacious. Certainly, the applications of each differs. Whereas Machiavelli's virtue is for the aggrandizement of select individuals, Hobbes's artifice conquers the misfortune associated with physical insecurity. The latter's philosophy is starkly utilitarian, wielded not in the service of cultivating virtue and wisdom, but obedience which is the beginning of order, necessary for human flourishing, in a disordered world. Progress, particularly material and scientific progress, cannot proceed without the order requisite for physical security.

Order and security is then squarely in the purview of the state, providing the basis for the political interpretation of disaster that requires the possibility of human intervention to mitigate disasters through political action. Since the legitimacy of political authority rests on the capability of the state to ensure security for its citizens, blame for the failure to prevent or mitigate disasters is appropriately directed towards the same political authority.

1.9   CONCLUSION

Disaster events offer a window to observe several issues that are both timely and theoretically compelling. Horne's account, and many others like it, implicitly raises

deliberations regarding the evolving relationship of nature to man, shifting ends of philosophical and scientific investigation, and sovereign responsibilities in the modern era given the responses on the latter two issues. One of the predominant themes of political philosophy in early modernity is the systematic use of scientific investigation to widen the scope of human agency over apparently independent external forces that shape the present and future lives of individuals and communities. This extension of human agency is closely connected with the constitution of political power in the modern state, which is the philosophical foundation for the responsibility of the state to ensure order amidst the disordered effects of disaster.

CHAPTER 2.

MACHIAVELLI, VIRTUE, AND MISFORTUNE

"Some are born great, some achieve greatness, and some have greatness thrust upon them." Shakespeare, *Twelfth Night*, Act II, Scene V

2.   MACHIAVELLI, VIRTUE, AND MISFORTUNE

2.1   INTRODUCTION

At first glance, Machiavelli and natural disasters appear to make strange bedfellows. After all, if natural disasters are just that, natural, perhaps it is best to begin with the first scientists of modernity, whether Isaac Newton, Gottfried Leibniz, or René Descartes whose astonishing discoveries helped posterity to understand the terrestrial and atmospheric forces driving disasters. Certainly, there is no shortage of scholarship on the science of disasters. But, disasters are not extraordinary events wrought on distant galaxies, empty deserts, or watery trenches, but extraordinary events that impinge in terrible ways on human things. Machiavelli's philosophy contributed to the political interpretation of these events and the philosophical production of risk and responsibility that facilitated it.

When Hurricane Katrina made landfall on the Mississippi Delta Region, it impacted a society predisposed to certain views on the relationship between man, nature, and politics. Most expect, or take for granted, technology that allows scientists to anticipate, predict, and oftentimes warn the general public of impending disasters. Moreover, most looked to the state as the primary responder in the immediate aftermath and for long-term recovery efforts. Even before the hurricane hit, the public relied on the 350-mile system of levees, seawalls, and floodwalls built by the USACE in the region to prevent catastrophic storm surges.

Catastrophic events have repeatedly altered the trajectory of human civilizations, whether in the form of devastating volcanic eruptions, virulent waves of plague, or society-swallowing earthquakes. Given the ferocity, power, and scope of such events, it is curious that humanity finds itself where it is today, filled with a surety that technological developments, wielded through political institutions, are capable of insulating human populations from devastation wrought by the natural world. The political interpretation of disaster requires a configuration of ideas that recommend the possibility of human interdiction into the external or natural world, but also particularly the interdiction possible through political action.

How did Machiavelli's political philosophy contribute to this configuration of ideas? Machiavelli's contribution to the political interpretation of disaster is manifold, if ultimately incomplete. One of his most influential contributions to posterity is his reinterpretation of conventional understandings of virtue, whether the virtue associated with ancient philosophy or Christianity. Ancient philosophy presumed virtue as excellence in accordance with nature, but Machiavellian virtue is synonymous with the imposition of the human will on external outcomes, significantly extending the horizon of the possible in human action. Those imbued with this new virtue could predict, anticipate, and ultimately devise remedies to ward off misfortune. Machiavelli was the first to grant a philosophical public airing to the pursuit of self-interest, a tenet that would later gain more traction. Since it is a departure from conventional virtue, however, one must act boldly for advantage but still cloak oneself in the appearance of justice.

Early modern philosophy, including that of Machiavelli, fashioned a new idea of humanity's place in the world. The advent of science in modernity heralded the first visions

of a world that had been tamed into a submissive quietude that nurtured, not destroyed, the conditions necessary to life. The deluges, the fires, the famines, and the plagues that had handicapped human progress could be relegated to distant memory. Indeed, in *The New Atlantis*, Francis Bacon tantalizes his readers in the closing lines with a vision of the possibilities unleashed by his experimental science that promised to "torture" nature for her secrets to finally eliminate misfortune wrought by disasters.[80]

Previously, man's place in nature was circumscribed by its inconveniences, fluctuating from times of plenty to crushing scarcity, driven by seemingly inscrutable forces of gods or chance. Nature and the gods acted on man, but man in turn rarely acted on them, only endured them. Recovering ideas from ancient Epicureanism, Machiavelli argues that happenings in the external world are guided only indirectly or inconsequentially by an intelligent mind or order. Moreover, ancient philosophy might seek the ultimate truths of the cosmos, and how man fit into that harmonious whole, but its philosophy did not seek to direct or bend natural processes or forces to usefully benefit humanity. Imposing predictability and control of nature required practical tools, or technological innovations, not metaphysical speculation that offered internal remedies for human troubles but no

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[80] In the penultimate paragraph in the unfinished work, the narrator describing life on fictional Bensalem to shipwrecked sailors promises "we do also declare that natural divinations of diseases, plagues, swarms of hurtful creatures, scarcity, tempests, earthquakes, great inundations, comets, temperature of the year, and divers other things; and we give counsel thereupon what the people shall do for the prevention and remedy of them." The "we" in the sentence refers especially to the House of Salomon, the ruling body of Bensalem that is populated by men of science that produce wonders for the general populace that defy the stinginess and the corruptibility of nature. Francis Bacon, *New Atlantis and the Great Instauration*, ed. Jerry Weinberger (Malden, MA: Wiley Blackwell, 1989), 83. Bacon's utopia is counterpoised to the utopian visions of Atlantis in the works of Plato, particularly the *Timeaus* and the *Critias,* that depict the destruction of the advanced civilization of Atlantis by an earthquake brought on by a vengeful god. See Plato, *Timeaus*, ed. Peter Kalkavage (Indianapolis, IN: Hackett Publishing, 2001), 24c-25e and *Critias* 120d6-121c4. Bacon was also among the first philosophers to acknowledge his philosophical debt to Machiavelli in his works.

external remedies that could change circumstances surrounding misfortune or disasters. Machiavelli's philosophy is oriented towards utility, not truthfulness.

Thus, it could be said that wresting control of human outcomes from the capriciousness of gods or chance required imagination. It certainly required audaciousness and a confidence that we can reshape or conquer the world to meet our interests. Machiavelli lit this initial spark, imagining not only the possibilities should man take it upon himself to act on, rather than contemplate, the external world, but also the possibilities of reshaping the it through political action. But, not a politics that is ultimately unachievable, as in the utopian visions of the classical world, but a vigorous politics that situates itself on the low, firm ground of human selfishness.

Machiavelli makes frequent references to fortune, which circumscribes the portion of the external world that is not yet under our control but nonetheless, he argues, malleable. In this regard, fortune is a form of disorder since its influence means our lives are characterized by unpredictability. Fortune encompasses a range of influences that for the first time are not to be endured or prudently handled, but instead boldly tamed and conquered. Machiavellian virtue ultimately generates the circumstances necessary to realize one's own interests, whether power, glory, or material wealth, over the inscrutability of fortune, an ordering of a fundamentally disordered world.

2.2   MACHIAVELLI, VIRTUE, AND FORTUNE

If audaciousness were to don a human face, it would look similar to the countenance of Niccolò Machiavelli; fitting then that he always speaks of appearances. In his most famous and controversial political work, *The Prince*, Machiavelli reconfigured the

predominant notions of virtue in his era. His virtue was potent precursor material for ideas espoused by thinkers later in modernity regarding the realm of the possible in human action.[81] Without the work of Machiavelli, particularly his precepts on individual autonomy and the shift of virtue from its basis in moral reasoning to calculations of utility, it is probable that modernity would not have taken shape as it did.[82] While he praised ancient virtue in some ways, he found it fell short in many regards. He advocated a new kind of virtue that differed sharply from both its ancient counterpart and the virtue found in Christianity.

While today modifying any human activity with the term Machiavellian assumes a sneer of moral disgust, the new virtue as it is explained in *The Prince* laid the groundwork for current conventional notions of salutary political action and individual autonomy. Individual autonomy meant that human outcomes ultimately derived from individual action motivated by individual will, not from abstract forces associated with fortune or divine intention. This granted men and women a prodigious capability to shape the external world according to human interest, howsoever those interests might be conceived. The cornerstone of his program is man as a selfish individual in relentless pursuit of his interests under conditions of necessity and scarcity. The most perfectly selfish individual is one whose large appetites obliges the imposition of his interests through politics.

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[81] As Mansfield observes, modernity is not merely something new but also a new idea that favors innovation in principle and constantly promotes new ideas and institutions, a change that wants to be receptive to further change. "Whatever is modern does not stay the same but keeps becoming more modern." Harvey C. Mansfield, "Introduction," in Machiavelli, *Discourses on Livy*, trans. Harvey C. Mansfield and Nathan Tarcov (Chicago: University of Chicago Press, 1996), xix.

[82] Ibid.

The natural tyranny of the prince presents conundrums not easily resolved through conventional moral reasoning as doing the morally preferable thing oftentimes means losing out on something useful. Machiavelli understood, and sought to address, the tension resulting from choosing between morally preferable and politically expedient actions. He solved the perennial dilemma by arguing that virtue was apparent only in the effects, or the appearance, of actions. Much like the mythical ring of Gyges, Machiavelli's teachings impart the knowledge necessary for princes to practice injustice while appearing just.[83] As a result, utility usurps moral reasoning as the calculation for political action. Machiavelli's audacity lied therein as he was the first political philosopher to openly advocate for the virtues of vice in political action.

Machiavelli's ongoing dialogue with ancient philosophers regarding the crucial issues of fortune, virtue, and the final horizon of the human will, is presented in this chapter.[84] He reserves his most pointed critiques for Aristotle and Cicero, both of whom had cast a long

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[83] The tale of Gyges is recounted in several sources, including Cicero's *On Duties*. In the tale, Gyges bears a ring that renders him invisible. Because he is invisible and therefore his unjust acts are not seen by others, even by the gods, Gyges embarks on a series of dastardly deeds, including killing his king and then raping the dead monarch's wife. In *On Duties*, the tale is used to present the Epicurean view that people act justly only because there are penalties to be paid when acting unjustly, namely those sanctions placed on injustice by society's laws. This means that acting justly has no intrinsic merit. Rather, it is only expedient to avoid punishment; given the opportunity, most people would prefer to act unjustly than justly. However, relying on sanctions to ensure that everyone is obliged to practice justice is predicated on the assumption that unjust acts are readily discernable by others in society. Implicitly, the argument suggests that there is no difference between the unjust and the just man; the latter is just in appearance only. The interlocutors in the Ciceronian dialogue use the tale to discuss the conflict between the honorable and the useful. The Epicurean position held that the tale of Gyges presented a false dichotomy, wherein there could be a divergence between the honorable and the useful. Instead, Epicurean adherents maintain that the honorable and the useful are always synonymous, so that expedient actions in pursuit of pleasure cannot also be unjust actions. See Cicero, *On Duties*, trans. Benjamin Patrick Newton (Ithaca: Cornell University Press, 2016), III.38; 193-195. Here, Machiavelli's views on the utility of practicing injustice while maintaining and appearance of justice echo the Epicurean position. Notice also that in Machiavelli's argument, the virtue of the new prince acts similarly to the ring of Gyges. The appearance of justice provides a cover while the prince practices injustice in the shadows, unseen by others, and thus escaping public opprobrium. See also Plato, *The Republic*, trans. Allan Bloom (New York: Basic Books, 1991), 359d-360d.

[84] In a letter to Florentine Ambassador to Rome at the time, Francesco Vettori, Machiavelli describes his nightly ritual where he dons "courtly garments" and converses with his ancient predecessors. Niccolò Machiavelli, *The Prince*, trans. Harvey C. Mansfield (Chicago: University of Chicago Press, 1998), 109-110.

and deep shadow over scholarly opinion. Indeed, the ancient Roman statesman appears as a nameless specter throughout *The Prince*. Cicero's dialogue *On Duties* remained a source of instruction for centuries after Machiavelli's death.[85] Machiavelli's criticisms of the ideas of the ancient world, however, is also paired with the integration of another ancient philosophical school, Epicureanism.

What circumstances demanded this new virtue? Machiavelli provides a dual answer to this question. The first arises from historical developments that led to the dominance of Christianity in Italy. The religion contributed to a rising effeminacy that contrasted sharply with the virile masculinity of the ancient pagans of Greece and Rome.[86] The second answer, however, deals not with history but with enduring circumstances of adversity. Regardless of the time or place, men and women contend with fortune, oftentimes impeding the fulfillment of their interests or desires. Machiavelli treats the opposition between individuals and fortune as a perennial element of the human condition.[87] Nature, the broad stage on which fortune appears, is not a harmonious and ordered system, which holds

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[85] Ciceronian scholar Newton comments on the close connection between Machiavelli's *The Prince* and Cicero's *On Duties*, observing that Machiavelli took particular pains to attack Cicero's work that had gained considerable influence within humanist circles in his day. Benjamin Patrick Newton, "Interpretative Essay," in *On Duties*, trans. Benjamin Patrick Newton (Ithaca: Cornell University Press, 2016), 9. See also J. Jackson Barlow, "The Fox and the Lion: Machiavelli Replies to Cicero," *History of Political Thought* 20 (1999): 627-645 and Marcia Colish, "Cicero's De Officiis and Machiavelli's Prince," *The Sixteenth Century Journal* 9, no. 4 (1978): 80-93.

[86] In the *Discourses*, Machiavelli contrasts the ancient Roman love of freedom that drove them to virtuous deeds in pursuit of worldly glory with the lack of manly vigor in contemporary Italy that had left the country divided and too weakened to defend itself from foreign incursions. He attributes the difference to education and religion. Christianity, with its concern for the eternal, as opposed to the earthly, kingdom deflated the Italians' desire for worldly honor. Instead, Christianity praised the contemplative life as worthiest of pursuit. In rich imagery, Machiavelli juxtaposes the sacrificial rites of contemporary Christians with the rites of the Romans. The latter made sacrifices a great public spectacle with the slaughter of many animals, a ferocious and bloody display that invigorated its audience to similar deeds on the battlefield. Christian sacrifices, by contrast, exhibited a delicate and orchestrated pomp, excluding the blood, that did not inspire its viewers to the same levels of ferocity. Christianity, he observes, "placed the highest good in humility, abjectness, and contempt of things human." Machiavelli, *Discourses*, II 2.2. See also III 1.4.

[87] Thomas Flanagan "Concept of *Fortuna* in Machiavelli," in *The Political Calculus: Essays on Machiavelli's Philosophy*," ed. Anthony Parel (Toronto: University of Toronto Press, 1972), 127 fn. 1 and 131. The opposition between virtue and fortune was probably so ubiquitous in Roman antiquity as to seem banal. Skinner, *The Foundations of Modern Political Thought*, 95.

promise for man's ultimate reconciliation with it.[88] Nor is nature a nurturing mother from which men may derive all they need. In *The Prince*, nature appears more the wicked stepmother, bent on almost agentic mischief in willfully granting or withholding advantage. The new virtue is presented as a possible answer to the oftentimes antithetical positions espoused by self-interest and fortune.

2.3   LESSONS ON HUMAN NATURE

The new virtue in *The Prince* is predicated on a critical assumption regarding human nature. Machiavelli posits man as a selfish individual in a perpetual, restless pursuit of things, whether tangible or intangible, deemed necessary or desirable. The selfishness of man is a key component of the new virtue since it establishes the parameters of what is considered praiseworthy and blameworthy. By the incorporation of inherent selfishness into human nature, Machiavelli's new virtue establishes conventional vice as a component of virtuousness. If man is inherently selfish, then philosophy, and political action, should be directed towards utility, not conventional virtue.

However, before discussing his views on human nature and virtue, it is first necessary to establish upon what authority Machiavelli bases his observations. The authorities not discussed in the text are as important as those that are discussed. In *The Prince*, when

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[88] Parel argues that Machiavelli's understanding of the world is derived from pre-modern Renaissance physics, cosmology, and medicine. Machiavelli's astrological worldview, Parel believes, led him to attribute all motions, whether those evident in government or the individual, to occult motions found in the heavens. For this reason, Parel is hesitant to position Machiavelli as the founder of modern philosophy as does Leo Strauss. However, as the section below discusses, there is sufficient historical and textual evidence to support the influence of Epicurean philosophy on Machiavelli's thought, not the astrological worldview that Parel describes. The notoriously skeptical Florentine, moreover, as Rahe aptly puts it, was no more likely to advise "a statesman to have his horoscope cast" than he would to urge then same man "to examine his conscience, repent, seek out a priest, confess his sins and confine his future conduct to the straight and narrow." Anthony J. Parel, *The Machiavellian Cosmos* (New Haven and London: Yale University Press, 1992), 7-11; Paul A. Rahe, "In the Shadow of Lucretius: The Epicurean Foundations of Machiavelli's Political Thought," *History of Political Thought* 28, no. 1(2007): 30-55; Leo Strauss, *Natural Right and History* (Chicago: The University of Chicago Press, 1953), 178-179.

explaining man's fundamental disposition, Machiavelli makes no reference to scripture or to natural law.[89] Instead, he dismantled conventional understandings of how nature and God intervened, or did not, in human affairs, constructing his new virtue in their silence. Neither acts sufficiently in human affairs as to prescribe a codex for what each individual should or should not do, leaving virtue without any unchanging, essential content.[90] As a result, the new virtue is not based on a universally applicable morality. The issue of universality is discussed in light of Machiavelli's division of society into rulers and the ruled later in the chapter. For now, it is enough to note that Machiavelli relies on no divine or natural authority to substantiate his claims on man's disposition. Instead, in one of the most famous lines of *The Prince*, Machiavelli promises his readers a new virtue that takes into account only the "effectual truth:"

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[89] Similarly, the Bible is quoted only once in the *Discourses*. In the text, Machiavelli attributes an action described as resulting from the agency of God in the Bible to King David instead (Luke I:53). He describes the actions of David as those of a new prince who made in "new cities new governments with new names, new authorities, new men." When the Bible is otherwise obliquely mentioned, Machiavelli refers to it to affirm the historical deeds of Moses, reminding his audience that Moses, too, relied on wickedness to fulfill his purpose due to the harsh realities of human envy and corruption. Those who read the Bible, Machiavelli instructs his reader, will note that Moses killed "infinite men" in his efforts to establish his new laws as many were envious of his role. Niccolò Machiavelli, *Discourses on Livy*, trans. Harvey C. Mansfield and Nathan Tarcov (Chicago: University of Chicago Press, 1996), I 26; III 30.1.

[90] Machiavelli treads on somewhat dangerous ground in denying that conventional Christian morality, and thus the divine revelations of God as presented in the Bible, are an appropriate blueprint for a good, moral life. Was Machiavelli, then, an atheist? The extent of his non-belief is a controversial one. Lucien Febvre argues that in Machiavelli's time, it was close to impossible for a person steeped in the pervasive influence of the Church in fifteenth-century Italy to sincerely prescribe to the notion that there is no god. Lucien Febvre, *The Problem of Unbelief in the Sixteenth Century: The Religion of Rabelais*, trans. Beatrice Gottlieb (Cambridge: Harvard University Press, 1982), 456-457. In contrast, Paul Kristeller acknowledges the possibility of atheism in early modernity, but argues that the most pressing challenge to the Church was not atheism but scientific interest in the natural world. Paul Oskar Kristeller, "Paganism and Christianity," in *Renaissance Thoughts and Its Sources*, ed. Paul Oskar Kristeller (New York: Colombia University Press, 197), 69. More adroitly, David Wootton argues that absolute atheism in the Renaissance is difficult to detect since it required dissimulation as it could bring serious, harmful charges by the Church against one's person. David Wootton, "Lucien Febvre and the Problem of Unbelief in the Early Modern Period," *The Journal of Modern History* 60, no. 4 (1988): 695-730. Yet, Machiavelli's skepticism was well known to his contemporaries. Writing fifty years after Machiavelli's death, Innocent Gentillet observed that the philosopher emerged from the Epicurean school. Moreover, among his close associates, he was known as a "scoffer" whose lack of attendance at Mass raised public comment. Another of his contemporaries, Francesco Guicciardini, uses Machiavelli as a character in a dialogue in which he is a "thoroughgoing skeptic, inclined to raise powerful objections against Christian doctrine of a sort consonant with the ultimate logic, if not actual argument, of [*On the Nature of Things*]." Paul Rahe, "In the Shadow of Lucretius," 44-46.

> But since my intent is to write something useful to whoever understands it, it has appeared to me more fitting to go directly to the effectual truth of the thing than to the imagination of it.[91]

Machiavelli's position on the absence of divine or natural authority acting on the world leaves substantial room for human agency to fashion the external world according to one's interests.

Machiavelli grounds his theory of political action on the effectual truth rather than an eternal natural or divine truth. But, what is meant here by the effectual truth? The effectual truth is a measure of truth derived from the effects of human action. It proceeds on the basis of empirical observation of the quotidian actions of most individuals. Thus, he is relying on a truth found in human deeds, not in human speech. Machiavelli is interested in the effectual truth, and thus deeds, because the latter is a more useful guide for how to act in existing political communities:

> And many have imagined republics and principalities that have never been seen or known to exist in truth; for it is so far from how one lives to how one should live that he who lets go of what is done for what should be done learns his ruin rather than preservation.[92]

Since he has emptied virtue of any essential content, it is revealed only in appearance. As such, virtue in itself cannot be said to exist outside human considerations of it. It is a quality assigned to occurrences which are praised by one's audience. Since something must be manifest to others before it can be praised or blamed, virtue cannot be strictly said to exist outside the context of human action. This also means that while the potential for virtue might reside in different individuals, unless the individual engages in

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[91] Machiavelli, *The Prince,* 15.61.

[92] Ibid., 15.61.

action visible to others, and thus able to be appraised, virtue remains latent rather than apparent.

Machiavelli's observations on the effectual truth is the basis for his observation on the natural selfishness of man. The cornerstone of the new virtue lies in the effectual truth of man's fundamental disposition towards others, which is inexorably driven by the whip of necessity and scarcity. Man's condition is such that he requires many things to survive, or necessity, but so too does his fellows. The scarcity of the things necessary for life means that individuals find themselves grasping for the very things that others are also seeking, whether power, honor, riches, or land, generating ceaseless competition. The new virtue is based on the low, but sure, ground of human selfishness. As such, it is synonymous with political action insomuch as politics is the domain in which competing private interests are publicly arbitrated.

Turning now to Machiavelli's considerations of human nature, his opinion on the matter is revealed in comparative contrast with the ancient philosophical opinions with which he engaged. While his opinion on human nature contrasts with the Stoic school, it does share some similarities with the ancient Epicurean position on the matter. Regardless of whether we are discussing ancient or modern conceptions of human nature, most opinions sit somewhere on a spectrum from fully selfish to fully social. Machiavelli's unabashed aggrandizing of man's strong desires and acquisitiveness places him squarely on the selfish end of the spectrum.[93]

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[93] As discussed in Chapter 3 of this dissertation, Machiavelli is in good company. Writing over a century later, Hobbes also famously supported the proposition that man is wholly selfish by nature. As a result, the political

The logical extension of his arguments has important repercussions for the configuration and purpose of political community. Depending on where one falls on the spectrum of human nature, the selfish or the social, the political community is respectively less or more natural, which means it posits a greater or lesser conflict between the private and communal interest. If one regards human nature as fully selfish, then the political community is an artificial construct unlikely to persist beyond the mere conveniences it proffers its citizens.[94] By contrast, if human nature is fully social, then man's natural condition is the perpetual subordination of private interest to the commonweal, making political community the natural condition of man.[95]

In this regard, the perfectly selfish and the social being differ in regards to how far their concern extends to others.[96] Each position acknowledges that living beings, whether human or animal, share the same basic needs for life in terms of shelter, sustenance, and procreation. Beyond these basic needs, it is also apparent humans are interested in securing goods beyond sufficiency to ensure their *comfortable* life. But, when people are considered social animals by nature, then one can expect them to share a concern for ensuring the well-

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community is an artificial construct, forged from human will, that requires a strong sovereign to enforce obedience to its dictates.

[94] Even though men are fully selfish, it is possible that they recognize that living amongst one another, even with the concessions necessary to ensure the political community, can further their own self-interest. See Chapter 3 on Thomas Hobbes where there is an extended treatment of this issue.

[95] Aristotle, *The Politics*, trans. Carnes Lord (Chicago: University of Chicago Press, 1984), 1253a1. Aristotle observed in *The Politics* that in his natural state man is a political animal: "From these things it is evident, then, that the city belongs among the things that exist by nature, and that man is by nature a political animal. He who is without city through nature rather than chance is either a mean sort or superior to man." As such, man lives in communities with others tied together in pursuit of a common, or public, interest. In the *Politics*, Aristotle bases his discussions of the best possible regime on his observation that man is by nature a political animal. In this regard, people that live outside the bounds of society have sacrificed an essential quality of humanity.

[96] Unless otherwise noted, the following discussion regarding human nature is based on Newton's *Interpretive Essay* which helpfully elucidates the differences of opinion among the four primary ancient philosophical schools, the Academics, the Stoics, the Epicureans, and the Peripatetics. Benjamin Patrick Newton, "Interpretive Essay," in *On Duties*, trans. Benjamin Patrick Newton (Ithaca: Cornell University Press, 2016), 178-184. For a review of the major ancient schools, please see Ibid., 176-177.

being not only of their family, but each person in the community. The private interest of the individual does not differ from the interest of the public, so that competition does not occur between them which is harmful to the integrity of the political community.

Among the various schools of ancient philosophy, all but the Epicureans hold that man was by nature a social animal. However, while the Stoics argue that man is fully social, the Academics and the Peripatetics reason that man is social, but only to a certain degree.[97] That is, there is some limits to man's sociality within or among political associations. In regards to human association, the Stoics' primary precept reasons that the most appropriate action is not to harm another person for gain. Cicero, discussing the Stoic precept in *On Duties*, says that according to it:

> it is more according to nature to undertake the greatest labors and troubles, if possible, so as to aid or safeguard all peoples . . . than to live in solitude, not only without troubles, but even without the greatest pleasures . . . Therefore, each person with the best and noblest character far prefers the former to the latter. The result is that the human being who obeys nature cannot harm another human being.[98]

Limitations on this precept, such as those arising from scarcity or necessity, are not entertained. Since all humans are the same, then all are equally bound by the natural and divine law prescribing the precept and equally obliged in this manner to every person, regardless of one's degree of association with him or her.[99] Since every person is equally

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[97] The positions of the Academic and Peripatetic schools regarding human nature are not discussed here. I am interested primarily in contrasting Machiavelli's assumption on the inherent selfishness of man with the assumption that man is a social animal to elucidate how each position influences theories of political association. Moreover, Epicureanism is discussed because Machiavelli's position is a refinement of the ancient Epicurean position of the primacy of individual selfishness. See Newton, *On Duties*, 195-199.

[98] Cicero, *On Duties*, 3.25 and Julia Annas, "Introduction," in Cicero, *On Moral Ends*, trans. Raphael Woolf, ed. Julia Annas (Cambridge: Cambridge University Press, 2001), xiii.

[99] Ibid., 3.27. See also Cicero, *On Moral Ends*, 3.63, where Cato, representing the Stoics in the dialogue, says that "This is also the source of the mutual and natural sympathy between humans, so that the very fact of being human requires that no human be considered a stranger to any other." Additionally, the Stoics regard the immortal gods as the primary source of nature. Thus, divine law is synonymous with natural law as the gods are the progenitors of natural

obligated to others, conflict between the public and private interest is not possible. In the completely apposite position of Machiavelli, who denies the possibility of the honorable at all, the Stoics deny there is ever a conflict between useful and honorable actions, so that whatsoever is honorable must also be useful.[100]

The natural political community, in which competition amongst its citizens is absent, requires the collapse of private interest into the public interest. The absence of private interest, in turn, requires that no individual within the community possess goods not also possessed by the community. But, while holding some things in common, such as clean air and water, are acceptable others are more troublesome. In Socrates' city in speech presented in *The Republic*, the community intended to replicate conditions of perfect justice, the city's guardians are required to divest themselves of private property, including their spouses and children.[101] Socrates acknowledges that this is liable to get messy, so that establishing the perfect community seems to be "a prayer."[102] Thus, considering humans as fully social presents significant, perhaps insuperable, difficulties when taken to its logical conclusion.

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law. See Cicero, *On Duties*, 3.28, where human association is described as having been established by the immortal gods.

[100] Most of what we know about the Stoics is from derivative texts. The Stoic positions discussed here are found in Ibid., 1.22, 3.21, 3.23, 3.28; Cicero, *On Moral Ends*, trans. Raphael Woolf, ed. Julia Annas (Cambridge: Cambridge University Press, 2001), 3.63.

[101] Plato, *The Republic*, 423e. See also 457d, 460d, 461e.

[102] Ibid., 453d and 450d. In speaking of the difficulties in presenting this prescription for public review, Socrates says to his interlocutor, Glaucon, "This . . . and many other things of the sort . . . foreseeing them long ago, is what I was frightened of, and I shrank from touching the law concerning the possession and rearing of the women and children." In another example of the difficulties in claiming the naturalness of political community, in Aristophanes's play, *The Assembly of Women*, the women of Athens take over the city, believing they can rule better than the men. They quickly move to eradicate private property. The logical, and comical, extension of equality amongst the citizenry also dictates that while men can have sex with whichever women they choose, they have to first have sex with the ugliest women before moving on to a prettier one! Aristophanes, "The Parliament of Women," in *Aristophanes: The Complete Plays*, trans. Paul Roche (New York: New American Library, 2005).

On the other end of the spectrum, where Machiavelli's views on human nature are found, men and women are wholly selfish. Despite the teachings of the Stoics on this matter, it is not entirely accurate to attribute this view as a decisive break with ancient teachings. Rather, Machiavelli adopts the positon advocated by the Epicurean school from antiquity.[103] The Epicurean school maintains that man is an entirely selfish individual. The highest good is found in bodily pleasure while bodily pain is purported to be the worst evil.[104] This denies the possibility of a public good, positing that the attainment of selfish interest is the primary concern in interactions among individuals.[105]

But how do opinions of human nature reflect on considerations of politics? If man is by nature a selfish individual, as Machiavelli and the Epicureans argue, then political communities are alliances of convenience. Political associations are formed because they are better poised to offer a secure and comfortable life than individuals living in isolation.[106] Since political associations are founded against man's inherently selfish nature, then they are said to be unnatural. When a community is established according to convenience, once the alliance no longer proves profitable, the weak bonds are severed.

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[103] In Chapter 3, I discuss how Hobbes furthered the association of politics with Epicureanism by legitimating sovereign rule through the natural desires of man to pursue self-preservation.

[104] Cicero, *On Moral Ends*, 1.30.

[105] Torquatus, the interlocutor defending Epicureanism in *On Moral Ends*, denies that his ancestor, Titus Manlius Imperiosus Torquatus, performed the illustrious deeds for which he is famous in defense of the of the public good. Imperiosus Torquatus, a legendary Roman consul, defeated a Gaul in single combat, ripping the torque from his neck. Ironically, the ancestral Torquatus also had his own son executed when he refused a similar duel. Executing one's own child is among the most extreme, if highly unsavory, acts of sacrifice for the public interest an individual can perform. Torquatus the interlocutor, when insisting that his ancestor performed the legendary deeds for his own private interests, ignores this important component of his ancestral history. Cicero, *On Moral Ends*, 1.24, fn.26, 1.30.

[106] In *The Politics*, Aristotle argues that the city is a partnership whose end is "living well" and reaching "self-sufficiency." It is not possible, as in individual outside the city, to do either of these things. Aristotle, The *Politics*, 1252b.25 – 1253a.30. Similarly, Hobbes recognizes that the full merits of civilization cannot be realized until the commonwealth is united under a robust sovereign. Hobbes, *Leviathan*, xiii, 9. Locke references similar arguments, stating that men enter a compact to form political society to ensure "comfortable, safe, and peaceable living." John Locke, *The Second Treatise on Government*, ed. Peter Laslett (Cambridge: Cambridge University Press, 2004), 95.5-10.

Support, then, for Machiavelli's princes is always qualified by the ability of the prince to further private interest.[107] The ruling faction is not concerned with justice itself, that is, justice pursued for no other reason than virtue, but the appearance of it. Thus, political decision is always motivated by calculations of utility, not justice or honor, where utility is understood as the measure of advantage or disadvantage an action brings.

What does Machiavelli's adaptation of the Epicurean position on man's inherently selfish nature mean for his understanding of the role of justice in politics? Since Machiavelli favors the Epicurean interpretation of human nature, his political philosophy is concerned with the appearance of justice, not justice itself apart from calculations of utility. He presents his lesson on justice in his concern for the effectual truth. Justice is revealed in the effects it produces, utility, not in any abstract truth put forward by philosophers. The Stoic position, discussed above, may be how we would like people in political societies to act, but it rarely, if ever, mirrors the reality of politics. Political actions should be based not on what is honorable, but what is useful.

In this regard, it cannot be said that moral people, acting morally, produce preferable outcomes. According to Machiavelli, it is quite the opposite. In *The Discourses*, he illustrates this position when discussing the necessity of tyranny in even the most well-ordered, just republics. Regardless of the impeccable moral character apparent in republics, tyranny necessarily follows. In a discussion on Rome, Machiavelli identifies the prolongation of military commands as a precursor to the Republic's fall. When exercising prolonged command, the commanders secured the loyalty of the soldiers, making it a

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[107] Machiavelli, *The Prince*, 17.66.

partisan force that served the commander's private interests, not the interests of the republic. Yet, he also observes that the prolongation was a necessary consequence of imperial acquisition driven by scarcity of land and resources. The rise of the strongman Caesar and the subsequent fall of the republic, then, was inevitable.[108]

Thus, acting morally in politics, particularly according to Christian morality, produces suboptimal outcomes. Instead, it is preferable to act immorally while cloaking one's actions with morality to satisfice the public's desire for moral actions. Since men would like to appear just, but in private actually practice injustice, then acting as if the world operated otherwise would lead to one's ruin, not one's salvation.[109] This means the prince only needs to appear just rather than cultivating justice itself. In this regard, Machiavelli is not a teacher of justice in the same way that his predecessors, such as Cicero, were millennia before him.[110] Instead, he is an apt instructor in justice as spectacle.

2.4   LESSONS ON VIRTUE

Machiavelli's assumptions regarding human nature are central to comprehending his new virtue. In the Western philosophical tradition in which Machiavelli is writing, human nature is the yardstick by which virtue is measured since it demarcates the boundaries of the praiseworthy and blameworthy. If the assumption regarding human nature is man as a

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[108] Machiavelli notes that "Although started by the Senate for public utility, that thing was what in time made Rome servile. For the farther Romans went abroad with arms, the more such extension appeared necessary to them and the more they used it." Machiavelli, *Discourses*, III 24. See also Mansfield, "Introduction," xxxii.

[109] In part, the divergence between the "ought" and the "is" may be a matter of sequencing. In order for the "ought" to be effective, all members of a society would be required to simultaneously act in accordance with securing the common interest. This may be why in *The Republic*, the perfect justice in the city of speech first requires that the city first be emptied of all persons over the age of ten in order to rid the city of improper manners and laws. Plato, *The Republic*, 541a-b.

[110] Newton, *On Duties*, "Glossary," entry for *honorable*, 206.

selfish being, this tells us much about what kinds of human actions Machiavelli thought ought to be praised over others.

The concept of virtue that Machiavelli relies upon in *The Prince* is one that recaptures the sense of virtue in classical antiquity.[111] Classical virtue is considered the fulfillment, or excellence, of human nature. For Aristotle, the virtue of a living being is synonymous with the fulfillment of its nature. [112] The fulfillment of nature is dependent on generation, or growing, as an acorn must grow to become the oak. Generation of living things, in turn, is fueled by motion inherent in nature.[113] While nature provides the motion, each living thing or kind is inscribed with a peculiar pattern that sets it apart from others, as a horse is different from an oak.[114] The pattern, a being's "thingness," is as a blueprint for its growth, propelling it towards fulfillment of its utmost potential.[115] For the acorn, the fulfillment of nature-driven generation is the majestic mature oak; the foal, the horse. Indeed, in this regard all activity is directed towards fulfillment of some prescribed end. But, the end is also a moral imperative, since in order to be good, or excellent, one must also strive towards

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[111] Skinner observes that the "first and fundamental move of the humanists" writing in Renaissance Italy was the rediscovery and subsequent analysis of Ciceronian virtue. Cicero's teachings on virtue were preferable to Aristotle's since the former married his with persuasive rhetoric. One can learn all that is possible regarding virtue in Aristotle but still lack the proverbial "fire" necessary to carry those lessons into practical life. Cicero's emphasis on rhetoric, the humanists maintained, provided a bridge from philosophical virtue to practical life. Skinner, *The Foundations of Modern Political Thought*, 88.

[112] For Aristotle, "virtue is a certain perfection (for each thing is said to be complete when it takes on its excellence – for it is then most in accord with its nature – just as a circle is perfect when it has most of all become a circle and when it is at its best)" or that virtue "disposes something well towards its attributes." Aristotle, *Physics*, trans. Joe Sachs (New Brunswick and London: Rutgers University Press, 2011), 246a10-20, 247a3-4.

[113] The ancient Greek word for nature, "*physis,*" is a derivative of the Greek word "*phueo*," which means to grow. Arlene Saxenhouse, *Women in the History of Political Thought: Ancient Greece to Machiavelli* (Westport, CN: Praeger, 1985)*,* 64.

[114] Aristotle, *Physics*, 193a29-193b8.

[115] Ibid., 192b8-24. Aristotle assigns a certain class of things as existing "by nature," which includes animals, plants, and other simple bodies, but also earth, fire, air, and water. Each has within itself a source of motion and rest as "nature is a certain source and cause of being moved and of coming to rest."

the end prescribed to it by nature.[116] For humans, virtue is the activity of making right choices according to reason, which requires belonging to a political community as association with others and the city's laws are crucial educative interactions.[117] Similarly, Leon Battista Alberti, writing in the Florentine generation before Machiavelli, explained virtue as "nothing else than perfect and well-developed nature."[118] In other words, virtue is to be excellent at those qualities or characteristics that define or distinguish one kind of being from another.

As discussed above, there are some qualities that all beings, because they are alive, share. All share a concern for securing the basic things necessary to life, whether water, food, procreation, or shelter.[119] Outside of the basic requirements, each kind of being exhibits characteristics that categorically distinguishes them. Moreover, since each has distinct characteristics, the environmental conditions necessary for the full prosperity for each being differs accordingly. A peregrine falcon, the swiftest creature on earth save man, cannot fully realize her superlative capability for flight confined in a small cage. Nearly every feature of the raptor's streamlined body, from the structure of her bones to the shape of her nostrils, is precisely suited towards this end. Insomuch as the conditions are

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[116] "Again, that for the sake of which [a thing exists], or the end, is what is best." Aristotle, *The Politics*, 1252a34-35. Of the classical conception of virtue, Strauss observes that "the life according to nature is the life of human excellence, or virtue, the life of a 'high-class person.'" Leo Strauss, *Natural Right and History* (Chicago: University of Chicago Press, 1953), 127.

[117] Man is by nature a political animal because his speech is capable of revealing the harmful and the advantageous, or the good from bad. Aristotle, *The Politics*, 1253a9-15; Arlene Saxenhouse, *Women in the History of Political Thought*, 65-66.

[118] Leon Battista Alberti, "The Family," trans. Guido A. Guarino, in *The Albertis of Florence*, 27-326 (Lewisburg: Bucknell University Press, 1971) as quoted in Quentin Skinner, *The Foundations of Modern Political Thought: Volume One, The Renaissance* (New York: Cambridge University Press, 1978), 94.

[119] See Cicero, *On Duties*, 1.11, "The beginning allotted by nature to every kind of living being is to protect its own body, avoid those things that seem likely to cause harm, and seek out and provide for all those things which are necessary for life, such as food and shelter and other things of the same sort."

sufficient for the falcon to fulfill her potential in flight, she can be said to be virtuous, to prosper or thrive. The requirements for human excellence, or virtue, shifts according to those capabilities and qualities thought to be inherent in man. If man, as Machiavelli maintains, is a selfish individual, then an excellent, or virtuous, man is one that excels at securing his selfish interest. Importantly, this shifts the calculus of decision-making from moral reasoning to reasoning based on utility. The prince's actions, then, are guided by calculations of utility directed towards the fulfillment of his selfish desires.

However, not all individuals interpret their selfish interest in the same way. Some, as Machiavelli argues, have larger or different appetites than others. Accordingly, the new virtue contains two key facets. The first pertains to the arguments surrounding the ideal, or most virtuous, prince. Machiavelli identifies the fully virtuous prince as one that establishes new modes and orders. The ideal constrains full virtuousness to a select few, which means that the new virtue is not universal. The second facet relates to the emphasis on human agency in political action capable of overcoming uncertainty, or fortune, in individual affairs. Machiavelli's new virtue is the virtue of man, cultivated by him through his native capacity for reason. The fully virtuous are self-sufficient, autonomous, and freed from the burdens of dependence on other individuals, fortune, or even divine providence. The virtuous have wrested the power to shape their own destiny and to mold the political world to suit their individual desires. It is an uncommonly optimistic, and novel, view of man's power and his freedom in the world in which he lives.

2.4.1   Desire Among Rulers and the Ruled

Machiavelli's new virtue is not one he conceives to be universal thus his philosophy is not beneficial universally. Although it is oriented towards utility, its usefulness extends

only to a select group. The new virtue exists in tandem with the conventional morality of

the people such that the virtue can be said to require that morality for proper functioning.[120]

While men are universally selfish, most do not understand their private interests in the

same manner.[121] Machiavelli observes that the categorical distinction among

interpretations of self-interest lies between the rulers and the ruled. One's place on the

spectrum determines the tenor of his or her inherent desires:

> For in every city these two diverse humors are found, which arises from
> this: that the people desire neither to be commanded nor oppressed by the
> great, and the great desire to command and oppress the people.[122]

The competing desires of the common and the great have a profound political influence

on society. Machiavelli isolates the binary desires as the impetus behind political

association.[123]

Since Machiavelli's new virtue reaches its fullest expression only among a small

number of people, it cannot be said to be universal.[124] Virtue is circumscribed both by

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[120] Cicero describes glory as "the agreed approval of good men, the unbiased verdict of judges deciding honestly
the question of pre-eminent merit . . . and as it is generally attends upon duties rightly performed it is not to be
disdained by good men." Cicero, *Tusculan Disputations*, trans. J.E. King (Cambridge, MA: Harvard University Press,
1945), 229.

[121] Machiavelli's claim that the city is divided into those who wish to be ruled and those that simply desire to be
left alone is a curious departure from Aristotle's perspective on competing claims to rule in the city. In *The Politics*,
Aristotle loosely divides the claims to rule into those of the wealthy, the aristocratic or the "best," and the multitude.
The latter probably most closely resembles Machiavelli's class that wishes to be left alone. But, Aristotle recognizes
that the multitude has a keen interest in the distribution of power in a regime since the distribution of power is
synonymous with the distribution of resources. In this case, the multitude might wish political power in order to
redistribute the resources of the wealth in their favor. Aristotle, *The Politics*, 1281a12-39.

[122] Machiavelli, *The Prince*, 9.39.

[123] "From these two diverse appetites one of three effects occurs in cities: principality, liberty or license." Ibid.,
9.39. While the more common desire to not be ruled in less pernicious than the desire to rule, it can be used against the
prince to destabilize or thwart his rule. Alternatively, the desire to not be ruled can also be a great benefit in times of
adversity as "a prince who has a strong city and does not make himself hated cannot be attacked." Ibid., 10.44, 9.39,
and 9.41.

[124] The introduction of a universal virtue based on the emancipation of selfish desire would have to wait until
Thomas Hobbes' *Leviathan*, discussed in the next chapter.

inherent capability and circumstance. Some people are simply not born with the insatiable ambition to rule, or the cleverness and ruthlessness to see it through, while others are placed by circumstance in conditions, such as low birth, that prohibit one's capabilities from manifesting properly. Of course, Machiavelli's teachings intend to aid the latter class of individuals in emancipating themselves from such circumstances.

What is it that the great seek in ruling over others? Machiavelli's instructions are littered with historical examples of great men that achieved great things in their lifetimes. He is clear that such men are to be imitated in order to obtain the same glory and acclaim they obtained during their lives and in posterity.[125] Would-be princes "should do as some excellent man has done in the past who found someone to imitate who had been praised and glorious before him."[126] In this regard, Machiavelli is especially interested in the glory and praise that accompanies political rule. The highest form of glory is that which is associated with political rule.[127] Accordingly, if glory is the highest good to be found in political life, the most magnificent selfish desire is the ambition, found among the great, to political rule. Once a prince seizes his territory, the next task is the consolidation of power and maintenance of rule. So, the most virtuous man is one which seizes rule and is capable of maintaining rule through means fair or foul. Since selfishness is the fount of virtue, the

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[125] Machiavelli, *The Prince*, 14.60, 17.68.

[126] Ibid., 14.60. Also, Price identifies several types of "worldly glory" that interest men like Machiavelli and those with a thirst for ruling, which includes political glory and military glory. Political glory is gained most especially by the founders of a new political regime, which is the highest form of glory, but also those that reform regimes. Military glory is generally afforded to generals and leaders in forming great armies and leading men to victory, but it is also gained by individual acts of bravery among common soldiers. Russell Price, "The Theme of Gloria in Machiavelli," *Studies in the Renaissance* 30, no. 4(1977): 588-631. See also Machiavelli, *Discourses*, I.10, III.13, 42, 45.

[127] Skinner notes that, "This concentration on the issue of political virtue was destined to become one of the most characteristic features of later Renaissance political thought. The humanists maintained the highest ambition for any statesman was "honor, fame, and glory." In part, the concern for princely virtue was motivated by the humanists' recognition that there was a considerable chasm between the virtue of the ancient Roman Republic and the anemic virtue in Christian Rome that emphasized other worldly, not this worldly, concerns. Skinner, *The Foundations of Modern Political Thought*, 48, 94, 234.

only calculus required for choosing between one action and another is utility, or the best means for achieving selfish goals. Machiavelli's argument, then, is about the virtue of tyrants who bend the external world to their ferocious will – a conquering of nature and fortune that is the apotheosis of modernity, if here confined to a smaller population.

The stratification of society into the ruler and the ruled reveals important lessons about the impact of human nature on political rule. The division among society rests on different interpretations of selfish interests — those that desire to oppress others and those that wish to escape oppression. The chasm between the quotidian desire to be left alone and the grandiose desire to rule over others signals an acute difference in the quality of character among the two classes, indeed, an inequality. It is clear that some fortunate individuals are simply born into hereditary rule, therefore relying on someone else's arms to secure their principality. These individuals represent the mean between the worst sorts of men and the best sorts of men. Others, as Machiavelli notes, are born into vulgar circumstances without any desire to rule. These individuals represent the lesser sorts of men. Meanwhile, the better sorts of men are those born private individuals with a lust for rule. It is only the "better sorts of men" that are poised with the requisite desire, station, and capability to put the virtue to use, and, through their own arms, transition from private citizens to public rulers. In this regard, not all men are created equal; some are more manifestly suited to ruling others.

The competing desires to rule and to escape rule are part of the larger engine driving man's acquisitiveness. Not since the prescripts of the ancient Epicureans has

acquisitiveness been so baldly promoted as a virtue.[128] Desire for gain is a natural characteristic to man such that "it is a very natural and ordinary thing to desire to acquire."[129] That observation is perhaps less novel than the role prescribed for philosophy with regards to rampant desire. The task of philosophy is not to subdue or temper the desire for gain in order to cultivate human excellence, but to put philosophy in the service of self-interest. Thus, the virtuous great are wolves among men. Rather than ascribing vice to its predatory nature, the wolves' ruthlessness in pursuit of its self-interest leads to the highest good in the Machiavellian universe — glory.

2.4.2 <u>Virtue in New Modes and Orders</u>

Machiavelli's teaching on virtue is one of the most difficult arguments to unravel. One important clue is to consider why Machiavelli insists that the virtue is most aptly found in princes that establish new modes and orders. Of this brand of prince, Machiavelli notes, "And so he will have double the glory of having made the beginning of a new principality, of having adorned it and consolidated it with good laws . . ."[130] There are two central points he uses to lend credence to his assertion. The first is the difficulty in establishing new modes and orders. Incumbent princes do not let go of their principalities quietly, after all. The remaining point is the nature of the task set forth by this sort of prince. The prince that imposes new modes and orders on a principality is the perfected tyrant that exerts

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[128] Epicurus, a Greek philosopher of antiquity, famously held pleasure to be the "final and ultimate good," hence the one to which all human action strives insomuch as human action is aimed towards some good. In Cicero's dialogue *On Moral Ends*, the character Lucius Manlius Torquatus argues on behalf of Epicureanism, saying, "We are investigating, then, what is the final and ultimate good. This . . . is such that everything else is a means to it, while it is not itself a means to anything. Epicurus locates this quality in pleasure, which he maintains is the highest good, with pain as the highest evil." Cicero, *On Moral Ends*, trans. Raphael Woolf, ed. Julia Annas (New York: Cambridge University Press, 2001), 13.

[129] Machiavelli, *The Prince*, 3.14.

[130] Ibid., 24.96.

tremendous force and will on his environment to shape it according to his preferences. That is, to reconfigure existing modes and orders to match his own selfish interests. In this regard, Machiavelli's prince is a decidedly modern tyrant.[131]

Before turning to the discussion on the virtue in establishing new modes and order, it is necessary to discuss the ways in which Machiavelli himself is establishing new modes and orders. Earlier in the chapter, I discussed the debt Machiavelli owes to the Epicurean school, particularly as regards the school's teaching on the inherent selfishness of man. Ascertaining the extent of Lucretius's influence, and thus Epicureans in general, is difficult since Machiavelli does not mention Lucretius's name or cite the poet's most famous piece in any of his major works. However, we should not be surprised at Machiavelli's hesitation at acknowledging his debt since during his lifetime it was dangerous business to openly admire the Epicureans.[132] However, this did not impede the circulation of Epicurean ideas among scholars and clergy at the time.[133]

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[131] Newell, *On Tyranny*, 436-437. Newell describes Machiavelli's tyrant, based on self-interest, as a modern tyrant, distinguished from its classical predecessors. However, he also notes that Machiavelli's modern tyrant is also distinguished from the millenarian, utopian tyrants of the twentieth century, such as the Jacobins, the Bolsheviks, or the Nazis, which sought a "global nirvana of absolute equality and collectivism." Instead, those revolutionary fanatics have closer ties to Rousseau.

[132] Alison Brown, *The Return of Lucretius to Renaissance Florence* (Cambridge: Harvard University Press, 2010), vii, xi. Machiavelli was also working in the chancery at the time, so he did not have the same limitations placed on him as those humanists with clerical status. See also Paul Rahe, *Against Throne and Altar: Machiavelli and Political Theory under the English Republic* (Cambridge: Harvard University Press, 2008), 32-34.

[133] Robert J. Roecklein, *Machiavelli and Epicureanism: An Investigation into the Origins of Early Modern Political Thought* (Lanham, MD: Lexington Books, 2012), 120; Brown, *The Return of Lucretius to Renaissance Florence*, 68-69; Rahe, *Against Throne and Altar*, 30, 45. The manuscript of Lucretius's *On the Nature of the Things* was re-discovered in 1417 after which were several copies circulating around Florence. While he did not directly cite the manuscript, he copied the manuscript in 1490. Paul Rahe, "In the Shadow of Lucretius*,"* 42, fn. 40. Machiavelli's copied manuscript was discovered in the Vatican library in the mid-twentieth century. Rahe also notes that there is evidence Machiavelli studied the work of Diogenes Laertius's *Lives of the Eminent Philosophers*, another ancient work detailing Epicurean philosophy that re-emerged during this period, arriving from Constantinople in 1416.

Outside of the arguments that closely matched Lucretius's own, Machiavelli also left clues to his careful readers regarding his debt to the ancient poet.[134] Both posited to readers the novelty of their arguments regarding the nature of the cosmos, man, and political community. Lucretius tells his readers that he is "traversing the remote places of the Pierides / untrodden by the sole of anyone before."[135] Using a similar metaphor, Machiavelli alerts his readers in the *Discourses* that he has decided to "take a path as yet untrodden by anyone."[136] Lucretius and Machiavelli, then, are both in the business of unashamedly presenting novel, and unpopular, opinions.

While the Scholastics had largely integrated the virtuous pagans, Aristotle, Cicero, and Plato, into Church teachings at the time, Lucretius and the Epicureans represented a more fundamental challenge because of the moral implications of the school's teachings. They accepted that there were gods, but that the gods were uninterested in human affairs, challenging the notion of providence, leaving more room for men and women to act according to their own desires and preferences. Additionally, Lucretius sought to alleviate the fear of death, including fear of punishment in the afterlife. This was a dangerous teaching since it removed the divine sanctions that encourage moral behavior.[137] These

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[134] Catherine Wilson, in her volume demonstrating the debt of early modernity to Epicureanism, curiously overlooks the influence that Lucretius had on philosophers in Machiavelli's time. She claims that little consideration was given for philosophical or political implications of Lucretius's thought. Instead, she argues that the ancient poet's work was known chiefly through his critics during this time and any direct engagements of the text were strictly philological. She fails to mention the works of Machiavelli at all in her assessments. Catherine Wilson, *Epicureanism at the Edges of Modernity* (Oxford: Clarendon Press, 2008), 2, 17.

[135] Lucretius, *On the Nature of Things*, 1.926-927.

[136] Machiavelli, *Discourses*, Pr. 1. See also Rahe, "In the Shadow of Lucretius," 48.

[137] Brown, *The Return of Lucretius to Renaissance Florence*, vii – viii.

concerns over the deleterious effects of Epicureanism led the Florentine synod to ban Lucretius's work in 1516, citing it as "lascivious and wicked work."[138]

While tracking closely with Lucretius's primary arguments, the Florentine departs from the Epicureans in one crucial regard, rejecting the teachings of Lucretius on retreating from the public realm. Instead, he uses the Epicurean teachings on man and the cosmos as an argument for the virtue of political action. The impact of political Epicureanism on modernity is discernible; insomuch as the modern political community is a forum for attaining one's selfish interest, whether security or a comfortable life, it is synonymous with it.

Why did the ancient Epicureans reject participation in political life? Lucretius offers the best defense of the good life spent in the Epicurean garden, sequestered from the anxieties produced by the vicissitudes of political life:

> Sweet, too, to gaze upon the great contests of war / staged on the plains, when you are free from all danger / But nothing is more delightful than to possess sanctuaries / which are lofty, peaceful, and well-fortified by the teachings of the wise.[139]

While human psychology predisposes man towards a limitless desire for acquisition, the seductive impulse, which appears to promise human happiness, is a false one. The political world, where the mightiest efforts at securing individual interests occur, leads only to further individual anxieties. Lucretius equates this restlessness, which of necessity must be denied to most due to scarcity, to the restless toil of the mythical Sisyphus, a man condemned to roll a stone up a mountain, only to have it roll back down from the summit,

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[138] As quoted in Brown, *The Return of Lucretius to Renaissance Florence*, 14.

[139] Lucretius, *On the Nature of Things*, 2.5 – 2.8.

day after day.[140] The restless desire, because it can never be satiated, is the ultimate

source of human unhappiness. Due to the unceasing motion of human affairs, politics, or

the quest for power, is cyclical. The process of gaining wealth and power always seeds

envy in the hearts of others that have not so succeeded.[141] Envy drags down even the

strongest king, such that the small space of peace and order afforded by politics quickly

turns to disarray and chaos.[142] Better, he says, to turn our attention to the root of our

unhappiness, and extirpate it, then engage in fruitless efforts to satiate willful desire.

Lucretius's preferred remedy, of course, is philosophy. Through reason, we can see that

very little is needed for human happiness, simply freedom from pain, which is synonymous

with pleasure.[143] Since the goods gained through political action are ephemeral, and a

source of great anxiety, it is best to sequester oneself from it entirely, hence the emphasis

on the Epicurean garden. Philosophy is the only remedy to free oneself from the illusion

that worldly things, whether honor, glory, or wealth, are the good to be pursued in life. [144]

By contrast, Machiavelli's new virtue embraces the Sisyphean struggle. He argues that

the Epicurean garden itself is illusory. If one wishes, and expects, to live a life of

tranquility, then paradoxically one is instead subjected to a life of constant peril.[145] If

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[140] "Sisyphus, too, is here in life before our eyes, / he who seeks the rods and awesome axes / from the people and always goes away defeated and dejected. / For to seek power, which is empty and never really attained, / and always to undergo harsh labors in the process, / this is to struggle to push up the face of a mountain / a stone which rolls still yet again from the highest summit / and rapidly seeks the level areas of the even plain." Lucretius, *On the Nature of Things*, 3.995-1002.

[141] Ibid., 5.1127-1128.

[142] Ibid., 5.1136-5.1142.

[143] Ibid., 2.37-2.39, 5.1117-5.1119.

[144] Ibid., 2.37-2.39.

[145] Paul Rahe, "In the Shadow of Lucretius: The Epicurean Foundations of Machiavelli's Political Thought," *History of Political Thought* 28, no. 1 (2007): 52.

neither the Epicurean garden, a sequestration from political life, nor the Platonic city in speech, the perfection of politics, is possible, then political action guided by a virtue freed from conventional moral constraints is indispensable. The restless, unceasing labor to fulfill our worldly desires is at the core of human psychology. Rather than using philosophy as a consolation to escape the anxieties brought on by ceaseless desire and struggle, he argues it is possible to shift philosophy to instead conquer the Sisyphean summit itself.[146]

In the opening lines of the first chapter, Machiavelli tells his readers that he is interested in teaching about princely rule in a particularly setting.[147] He divides all political association into republics or principalities. The latter is used to being under princely rule while the former is accustomed to freedom. Furthermore, among principalities, there are some which are hereditary or newly founded. In each case, it can be said that a principality is acquired through fortune or virtue, respectively. Machiavelli is particularly interested in princely rule in new principalities because it provides an opportunity to contemplate the virtuousness behind the prince's acquisition of the principality. Establishing new modes and orders is a difficult task since an incumbent prince benefits greatly from his consolidated power. It is worth quoting Machiavelli at length to explain the situation confronting the would-be prince:

> And it should be considered that nothing is more difficult to hand, more doubtful of success, nor more dangerous to manage, than to put oneself at the head of introducing new orders. For the introducer has all those who benefit from the old orders as enemies, and he has lukewarm as defenders all those who might benefit from the new orders. This lukewarmness arises partly from fear of adversaries who have the laws on their side and partly

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[146] As Newell argues, "there is scant suggestion among Greek and Roman thinkers that virtue can be understood as the creative will to overcome a capricious fortune so as to shape it to human needs." Newell, *On Tyranny*, 275.

[147] Machiavelli, *The Prince*, 1.1-2.

from the incredulity of men, who do not truly believe in new things unless they have firm experience of them.[148]

Ruling over others, or imposing one's self-interest over others, is among the pinnacle of self-interested actions. The quote above demonstrates the extent to which a prince's self-interest is firmly embedded within the institutions of a principality. As a result, the fullest realization of greatness is the marriage of appetite to found states with its capability to found new states, giving rise to "new modes and orders." It is a remaking and a reordering of existing political systems to better suit one's own interest. In this regard, Machiavelli ascribes significant transformative power to his princes. A much more difficult, and thus glorious, endeavor than keeping a hereditary principality on the same worn, rutted road.

The difficulties stem from the fluxity of nature and man. The nature of people, we are told, is variable, since "it is easy to persuade them of something, but difficult to keep them in that persuasion."[149] Moreover, not only are individuals variable, but general circumstances rapidly shift as well, driven by unknowable chance or fortune. Princely virtue, under these trying conditions, must be akin to an algorithm, perfectly tuned to calibrate action according to shifting circumstance and fortune. The glory of hereditary princes, whose only task is to take hold of the wheel that is already set on the right course, is a lesser glory to the statesman who sets about laying the foundation for a new rule. In hereditary principalities, authority is cemented by force of arms and habit.[150]

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[148] Machiavelli, *The Prince*, 6.23.

[149] Ibid.*,* 6.24.

[150] In *The Prince*, however, Machiavelli says nothing of the conditions of political authority in new or established republics

Establishing new modes and orders is a difficult but worthwhile endeavor; where should one turn for guidance? Machiavelli's teachings are intended as the answer to this question. He orients philosophy towards enabling individuals to pursue self-interest in the best manner possible. The world of previous philosophers, Machiavelli insists, is one that exists only in the imagination of those misguided "others."[151] Previous iterations of philosophy cannot bridge the contemplative with the active life.

Machiavelli's virtue is better suited for the establishment of new modes and orders because it diminishes the old, worn distinction between political expediency and moral reasoning. His lessons are as much about unlearning conventional virtue as they are about learning the new virtuous action.[152] The new virtue also eases the tension in the individual conscience between conventional virtue and immoral actions. That is what Machiavelli means when he insists princes yearning for martial glory must "learn how not to be good."[153] The basis for the new virtue is considerations of utility, meaning that worry over the vices necessary to keep a state is now eased. In this regard, Machiavelli presents himself as a virtuous prince, a founder of new modes and orders, since his rehabilitation of vice reconfigures the conventional morality of his time.

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[151] Machiavelli, *The Prince,* 15.61.

[152] Ibid., 15.61-62.

[153] The implications of Machiavelli's lessons on the new virtue were not lost on his contemporaries and in the generations immediately following the publication of *The Prince*. Writing in 1596, Machiavelli's adversary Giovanni Botero criticizes Machiavelli for writing with a "small conscience." He chastises the Florentine for separating human reasoning on the useful or expedient from the divinely inspired human conscience, which suggests that "some things are lawful through the authority of the State, while other [sic] are through the conscience." Reason and conscience, when granted jurisdiction over public and private affairs, guide one to the same actions. Although he does so unsatisfactorily, Botero's *Practical Politics* is an attempt to marry salutary political action with moral or ethical considerations. Notably, Botero argues that the first crucial task of the new prince is the alleviation of his subjects' misery. Not only is such political action glorious in the eyes of God, but it is a sure way to "bind [subjects] to their ruler." Giovanni Botero, *Practical Politics (Ragio di Stato)*, trans. Colonel George Albert Moore (Chevy Chase, MD: Country Dollar Press, 1929), 33, 58.

The prince's virtue is an algorithm that varies the measures of vice and virtue according to fluctuating circumstance. Echoing the calculus of utility elsewhere, cruelty and mercy are to be distributed according to the most careful of calculations to gain or maintain rule. Although mercy seems to be a virtue, when used excessively, it is harmful to a prince's rule. One example comes from Pistoia, in which the prince is charged with excessive mercy that indirectly led to the destruction of the city after ruinous factional fighting engulfed it. Precise doses of cruelty can prevent the sort of destruction that accompanied the fighting in Pistoia.[154]

Civil principalities are a forum for achieving greatness, not for the benefit of the common man. Beyond achieving greatness, Machiavelli has little to say about the benefits that princely glory brings to the residents of the prince's territory. If he exhorted the great of his day to deliver Italy from the barbarians, it was more to participate in the imperial greatness of the nation than to bring greater security and economic wellbeing for Italians. Thus, Machiavelli does not make arguments on behalf of virtue that would see the pursuit of self-interest as a good for the common interest as well.[155]

Machiavelli makes no reference to either divine or natural law in his teachings on virtue. Moreover, he makes few references to law outside of positive law as it is legislated in principalities. In this regard, laws are particular to the people and principality that

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[154] Machiavelli, *The Prince,* 17.66.

[155] Few theorists argued on behalf of the capacity of self-interest to further the common good more convincingly than Adam Smith. In his most famous work, Smith conjectures that it is not the cultivation of wisdom that most benefits the common good, but man's inherent propensity to engage in commerce. Pursuit of self-interest, then, is the surest route to the common good. Smith encapsulates this fundament of modernity when he notes that "It is not the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own self-interest. We address ourselves not to their humanity but to their self-love, and never talk to them of our necessities, but to their advantage." Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of the Nations*, eds. R.H. Campbell and A.S. Skinner (Indianapolis, IN: Liberty Fund, 1981), 26-27.

enacted them, not universal or widely applicable in other places and times. The substance of the law is irrelevant with reference to morality or even good governance as it is understood today.[156]

In a chapter on the role the military plays in a prince's glory, Machiavelli takes pains to impart his lesson on law. He notes there are two kinds of combat, one comprising combat by law and another by force. Combat by law is proper to man since he is the only being capable of engaging in this sort of combat. Despite man's inclination, more often than not combat by law must give way to combat by force since laws are rarely enough to settle the issue. For this reason, the most important foundation for the stability of the prince's state is dominance by force of arms; good arms precede good laws. But, what are good laws? The calculus for preferring one law over another is only in reference to utility. Good laws are those that aid the prince in securing and consolidating his hold on power.[157]

The alignment of virtue with human action infuses it with a profound sense of human agency. There is an undeniable tension in the new virtue. It satisfies, on the one hand, selfish interests while on the other it appears to satisfy conventional understandings of virtue that still remain important. So, the new virtue is, to put it proverbially, getting one's cake and eating it too; satisfying selfish interests and orchestrating actions in such a way as to make them appear conventionally moral, and thus praiseworthy, to one's audience. This means that in some cases being conventionally "bad" is the new virtue.

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[156] As Rahe notes, "That Machiavelli's standard for judgment is a polity's propensity for self-aggrandizement and not its mode of governance there can be no doubt." Paul Rahe, "On the Shadow of Lucretius: The Epicurean Foundations of Machiavelli's Political Thought," *History of Political Thought* 28, no. 1(2007): 39.

[157] Machiavelli, *The Prince*, 5.20-21.

2.5   LESSONS ON FORTUNE AND VIRTUE

Machiavelli's ideal prince stands out as an individual capable of securing his selfish interests. The virtuous prince is capable of instituting new modes and orders that impose his interests politically, becoming the quintessential tyrant. What obstacles does the prince face and what sorts of remedies does Machiavelli recommend him? The idea that man is capable of reaching the pinnacle of human excellence is to assume that man is also capable of overcoming any significant obstacles preventing him from reaching that excellence.[158]

The prince's perennial enemy, as presented in *The Prince* and elsewhere, is fortune. Indeed, Machiavelli presents his new virtue as a remedy against the capricious influence of fortune on the outcomes of human action. As a concept, authors in antiquity and during Machiavelli's time used fortune to capture the quality and tenor of things in the external world that hindered or facilitated human outcomes. Fortune is alternatively depicted as the Goddess Fortuna, to whom one can offer supplication in return for her favor, or an unpredictable, unknowable force that can shape human outcomes for good or ill. It encompasses human uncertainty and those things that man has difficulty explaining and predicting. Alternatively, fortune is also sometimes presented as a beneficial external resource, such as wealth or good birth. In *The Prince*, Machiavelli uses the notion of fortune in all of these manners, but emphasizes fortune's capacity to introduce uncertainty, unpredictability, or inscrutability.

In this regard, Machiavelli's concept of fortune parallels the analytic definition of disaster as disorder. The classic metaphor Machiavelli uses to describe fortune is the raging

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[158] Skinner, *The Foundations of Modern Political Thought*, 94.

river that overflows its banks, ruining trees and buildings while people are forced to flee, yielding to the impetus of the floods.[159] In tandem, princely virtue is likened to the technology of dikes and dams, capable of channeling the swollen river to a more salutary course. Here, the dikes and dams, and indeed virtue, impose order on fluctuating fortune which promotes a predictability of course enabling perspicacious individuals to make appropriate decisions aligning actions with interest. By defeating fortune, the virtuous prince transforms to an autonomous individual charting the course of his own life. He owes little to fortune itself, other than opportunity, and certainly nothing to God.

One of the defining features of Machiavelli's contributions to posterity is his insistence on man's capacity to overcome obstacles to the realization of self-interest presented by fortune. The most telling feature of his teaching on virtue is the phrase he repeatedly uses, "one's own arms," that describes a capacity for autonomous action that relies solely on individual resources. Self-sufficiency, a core lesson in the new virtue, decreases uncertainty brought about by dependence on others.

2.5.1 The Contest Between Man and Fortune

In *The Prince*, and in his other writings, Machiavelli alternately used fortune to describe a capricious goddess overseeing human affairs, a resource, and as external chance that is sometimes linked to nature itself. Machiavelli's use of fortune in this last regard is of particular importance for the current argument since it directly opposes the individual against the whole of the external world. As the virtuous prince subdues fortune, then, he is subduing nature. This idea, however, of man's mastery of nature to suit his own purposes,

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[159] Machiavelli, *The Prince*, 15.98.

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did not emerge fully fledged until later thinkers as is discussed in the following chapter. Machiavelli, however, remains the first political philosopher in the modern era to boldly put forth the possibility of man's conquering of nature with only his inborn and learned capabilities outside any divine or natural power.

In *The Prince*, the final end to human action was glory and praise, particularly praise from poets that immortalized one's name and deeds for posterity. One of the hallmarks of Renaissance Florence was the revival from antiquity of glory as a worthy end.[160] Glory was the public praise accorded one by both peers and posterity. Because glory is accorded publicly, one of the surest ways to achieve it is through politics. Along with the revival of ancient glory, Renaissance humanists also revived the apposition of man and fortune as a perennial feature of the human condition.[161] Nature is a stingy mistress, not a nurturing mother, and any benefits one is to receive from her must be seized as the benefits are rarely, if ever, given freely or predictably. Machiavelli chastises Italian princes for their reliance on fortune which cost them their states. He notes that the quiet times lulled the princes into a false sense of security so that they did not anticipate sudden reversals of fortune that brought about rapid change, "For one should never fall into the belief you can find someone to pick you up."[162] Supplication is an unpredictable business, not a reliable method that

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[160] Jacob Burckhardt observes that in the hierarchically ordered society that characterized the medieval era, each caste possessed its own sort of honor. The leveling of society in the Italian city-state republics helped to erode castely honor in favor of the more universal notion of martial or political glory. Notably, however, glory was also accessible to poets, like Dante, that immortalized themselves in word, not deed, earning himself the coveted "poet's garland." Jacob Burckhardt, *The Civilisation of the Renaissance in Italy* (New York: The Macmillan Co., 1921), 139-140.

[161] Thomas Flanagan "Concept of *Fortuna* in Machiavelli," in *The Political Calculus: Essays on Machiavelli's Philosophy*," ed. Anthony Parel (Toronto: University of Toronto Press, 1972), 127 fn. 1 and 131. The opposition between virtue and fortune was probably so ubiquitous in Roman antiquity as to seem banal. See Skinner, *The Foundations of Modern Political Thought*, 95.

[162] Flanagan, "Concept of Fortune in Machiavelli," 129. The insistence on sacralizing fortune in the form of Fortuna indicates some key differences between the contemporary notion of "chance," which connotes randomness, and ascribing those things brought to a being that could potentially be influenced by supplication. Moreover,

can, with some regularity, reproduce similar causes and effects. For Machiavelli, the cultivation of virtue is a surer medium for attaining glory and acclaim through political deeds since it relies on one's own abilities and not the talents or whims of another.

The term fortuna itself is derived from the Latin word *fors*, or luck, itself derived from *ferre*, to bring. At its most basic fortuna, then, is "that which is brought." Beginning as early as the ancient Romans, the goddess Fortuna is "she who brings it."[163] In *The Prince*, Machiavelli anthropomorphizes fortune as a goddess only a handful of times. However, it appears as a rhetorical device rather than an opinion on fortune's place in a mythical pantheon of gods. As a rhetorical device, however, using Fortuna is efficacious in conveying his lesson on the matter. Fortune encompasses the variability of chance in the external world that sometimes appears as useful resource, as in wealth, but in other instances an ill wind that lays one's world to waste. Fortune is a god, or goddess, because of the divine-like influence it has on human affairs. Moreover, fortune is depicted as a woman to convey her capriciousness, or unpredictability, a characteristic closely associated with the female gender. [164]

Most of Machiavelli's references to fortune, particularly when opposed with virtue, depict the quality of variability in nature and thus in human affairs. One of the most vivid

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connecting fortune with a divinity also implicitly assumed some sort of divine knowledge or divine plan, however inscrutable or unknowable by mortals.

[163] Flanagan, "Concept of *Fortuna* in Machiavelli," 134.

[164] Femininity diametrically opposed the excellent qualities associated with masculinity, and the virtuous prince, the pinnacle achievement of masculinity, in her weakness, her indecisiveness, her cowardice and her dependence on others. Hannah Pitkin, *Fortune is a Woman*: *Gender and Politics in the Thought of Niccolò Machiavelli* (Berkeley, Los Angeles: University of California Press, 1984), 109. However, Saxenhouse aptly observes that while the image as fortune as a woman recalled the "fickleness" often ascribed to women, Machiavelli prescribed action against her whims, not submission, altering the woman in the image to an "exhortation to action." Saxenhouse, *Women in the History of Political Thought*, 155-156.

portraits of this variability appears in one of his lesser known works, the *Tercets on Fortune*. There, the proverbial single wheel of fortune, so often used to convey the cyclical turns of fortune from ill to beneficent, is replaced by a dizzying multitude of wheels, "Within [Fortune's] palace, as many wheels are turning as there are varied ways of climbing to those things which every living man strives to attain."[165] Here, variation occurs not only across time, as Machiavelli describes the rapid variation in the state of things in Italy, but also at any given moment, where every action is replete with potential variation according to the infinite ways in which one might pursue it.[166]

This variability is the ultimate challenge to the virtuous prince who must above all anticipate and accommodate for its shifts. Machiavelli, in a famous image, depicts fortune as a raging river:

> And I liken her [fortune] to one of those violent rivers which, when they become enraged, flood the plains . . . everyone yields to their impetus . . . it is not as if men, when times are quiet, could not provide for them with dikes and dams.[167]

The variation is the source of distress and failure for the prince who relies solely on fortune. When fortune varies, as it inevitably does, the prince is caught flat-footed. Princes often habitually act in one manner, such as with cautiousness or impetuousness, but then wrongly assume that the tenor of their actions need not vary according to changes in the external world. Machiavelli notes how difficult it was, even for virtuous princes, to readily change their character. Sometimes, as his teachings on virtue indicates, changes in character mean

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[165] Niccolò Machiavelli, "Tercets on Fortune," in *Machiavelli: The Chief Works and Others*," trans. Allan Gilbert (Durham, NC: Duke University Press, 1965), 746.

[166] Machiavelli, *The Prince*, 25.99.

[167] Ibid., 25.98.

that a prince needs to learn how to be bad while giving the appearance of being good. This means that fortune's variation, not divine or natural law, is the final teacher of justice.

However, even when fortune brings adversity it acts as a foil for the virtuous prince's greatness. The finest expression of the natural prince is an individual that begins in the meanest circumstances as a private citizen and uses his native talents to reach the pinnacle of political power. In *The Life of Castruccio Castracani of Lucca*, Machiavelli treats the historical character as an exemplar of such a prince. Castruccio, like several other great men Machiavelli discusses in his works, is born into maligned circumstances. He is a foundling infant, discovered in a garden by a humble priest and his unwed sister.[168] He is a natural, and charismatic, leader of men whose "charm increased with the years, and in everything he showed ability and prudence."[169] His humble beginnings did not dampen his natural tendencies and his priestly education did not quench his natural bellicosity, but rather inflamed it. Despite his moral education in the Church, Castruccio learned to be bad, in one instance luring his opponents to him with false promises of mercy, only to execute them and their families. Castruccio seized control of Lucca, which he ruled, and eventually Pisa and Pistoia as well. While fortune was set against Castruccio from his birth, the

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[168] The image of Castruccio as a foundling infant evokes comparison with another natural prince, Moses, who also rose to greatness. Moses regularly appears in Machiavelli's discussions of virtuous princes but often, like here, in a manner that distances the prophet from his divine origins in Christian teachings. See Machiavelli, *The Prince*, 6.22 where Machiavelli lists Moses, Cyrus, and Romulus as princes by virtue, not by fortune, noting that the accomplishments of the latter two appear no different from those of Moses. Moses is singled out, not for his status as a prophet, but only for having "a great teacher." God's instruction provided a helping hand, much like fortune, leaving Moses to accomplish the rest. According to Machiavelli, then, Moses' accomplishments remain his own, not God's.

[169] Niccolò Machiavelli, "The Life of Castruccio Castracani of Lucca," in *Machiavelli: The Chief Works and Others*, Vol. 2, trans. Allan Gilbert (Durham, North Carolina: Duke University Press, 1965), 535.

virtuous prince transforms a burdensome fortune into an opportunity to showcase his greatness.[170]

In this manner, fortune's capacity to determine human outcomes is tempered by individual character and ability. The variability and unpredictability of fortune is subdued by Machiavelli's methods for cultivating virtue: natural ability, foresight, learning, and moral flexibility accompanied by a concern for appearances. He acknowledges that changing modes of character, from impetuosity to cautiousness, is a necessary requirement. By the end of chapter 25 in *The Prince*, however, he has settled on the requirements of boldness and impetuousness as the surest route to glory. This seems to finally speak to the limits that Machiavelli has placed on even the natural prince's ability to conquer fortune. The boldness required for martial glory, it seems, is a young man's game. Castruccio, like Alexander, Caesar, and Cesare Borgia, dies in the prime of his life with work left yet unfinished. Mortality, and the inevitable sapping of youth and vigor that accompanies age, are fortune's final, inescapable blows.

As Machiavelli claims, even the virtue he prescribes had its limits. He questions the common opinion that the variability of nature presented a final barrier to human conjecture, "that worldly things are so governed by fortune and by God, that men cannot correct them, with their prudence . . . and on account of this they might judge that one need not sweat much over things but let oneself be governed by chance."[171] Free will, however, was

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[170] Machiavelli, *The Prince*, 6.23.

[171] Ibid., 25.98.

capable of penetrating nature's veil to anticipate and thwart obstacles that might stand in the way of glory.

2.5.2 <u>Prudence and Providence</u>

How novel were Machiavelli's opinions on the capacity of man to prevail against fortune? Among his contemporaries, merchants frequently grumbled about the vicissitudes of fortune, subject as they were to its capriciousness that could destroy their prosperity in a single blow at sea. Writing during Machiavelli's time, a merchant recommended to his son that although prudence and good sense can at times resist fortune, yielding to its inevitability is arguably the best policy to adopt.[172] Machiavelli challenged precisely this opinion of others that left little room for man to prevail against the dictates of God or fortune.[173] By contrast, Cicero presents two primary remedies to prevail against fortune, both in considerable opposition to those espoused by Machiavelli.

In *On Duties*, Cicero likens fortune to a force that exerts influence over outcomes in our daily lives, involving either inanimate or animate things. Fortune is also likened to chance, a force that also governs us, leaving some to benefit from noble birth, wealth and

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[172] Brown, *The Return of Lucretius*, 70.

[173] The idea of fortune also figured prominently in medieval Christian thought. Church fathers, such as St. Augustine, connected fortune to human affairs through divine providence. Providence is a belief in a god concerned with the daily affairs of ordinary people. A providential god directly intervenes in a believer's life to shape it according to the divine plan, ultimately unknowable by man. St. Augustine, and Renaissance authors, including Boethius, believed that fortune was a tool through which God exercised his providential will. Fortune still influenced good and bad outcomes, but only insomuch as the effects were intended by God. St. Augustine's *The City of God* strips fortune of any of its purported independent will when he insists that the affairs of the world unfold precisely as God planned. The weight of God's will leaves no room for human initiative, no matter how virtuous or pious. When greatness among men was apparent, the greatness is writ through with God's signature. Machiavelli's cheekiness, then, is especially evident when he includes Moses among his new princes. Likewise, in the *Life of Castruccio Castracani*, Machiavelli reports that Castruccio, entering the Roman Senate for the first time despite his ignoble birth, wore a toga threaded with the phrase "That is which God wills" on one side and "That shall be which God shall will" on the other. Castruccio, like most of Machiavelli's princes, knew well how to manage the appearance of piety. Gilbert, "The Life of Castruccio Castracani," 545. St. Augustine, *The City of God*, Book IV; Boethius, *Consolation of Philosophy*. See also Hannah Pitkin, *Fortune as a Woman*, 139-140 and Skinner, *The Foundations of Modern Political Thought*, 95-96;

influence. Sometimes, the influence is beneficial to our concerns but in other instances it is quite adversarial. Cicero acknowledges that it is fortune fueled by animate forces that offers the most resistance. The animate force is so powerful because it encompasses fortune wrought by man himself, whom Cicero notes is the most pernicious agent influencing human affairs. He observes that "many more human beings have been destroyed . . . in war or sedition than by any other disaster."[174] The remedy for fortune, outside simple prudence, is cultivating the devotion of other human beings. No great and salutary deed can be accomplished without depending on others. As a result, one of the philosophical problems Cicero addresses is the attribute of virtue that allows men to "win over the minds of other human beings and harness them for one's own use."[175] In contrast, Machiavelli's remedy to the ills of fortune limits dependence on others in favor of the strength of one's own arms.

Prudence, the virtue associated with temperance and discretion in human affairs, is likewise sometimes prescribed as a remedy to fortune, as evidenced in the advice provided by the Florentine merchant to his son in the paragraph above. Cicero, as well, describes prudence as a remedy especially useful during periods of crisis. He notes that the trustworthiness of individuals is in part predicated upon their prudence. Such individuals seem to understand more than ourselves whom "we believe can foresee future events" and react appropriately during times of heightened crisis according to the circumstances.[176]

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[174] Cicero, *On Duties*, 2.16. In this section, Cicero is referring to a work by Dicaearchus, a student of Aristotle.

[175] Ibid. 2.17. It is one's wisdom and virtue that sways others to one's cause. But, Cicero also notes that part of persuasion is convincing others of one's wisdom. So, it is not enough to be wise, but to be able to persuade others of one's wisdom. Cicero's concern for appearances is quite substantively different from Machiavelli's. While Machiavelli is concerned only for the appearance of virtue to further one's own selfish interests, Cicero is concerned with virtue as a good in itself apart from its utility. Cicero's comments regarding the appearance of wisdom is part of his larger teaching on how would-be statesman may act in accordance with wisdom in political affairs.

[176] Ibid., 2.33.

Prudent persons are valued because they are useful to others and seem to have access to the truth of matters. Cicero uses the Latin term *prudentia* as a translation for the ancient Greek *phronesis*.[177] Here, prudence is likened to a knowledge of "what must be pursued and what must be avoided." Although prudence is an admirable virtue, it is separated from the higher virtue of wisdom, or *sapientia*. Whereas wisdom is "knowledge of things divine and human," prudence occupies a somewhat lower rung on the hierarchical ladder of virtue insomuch as it concerned with distinguishing between good or bad actions at a given point in time.[178] Prudence emanates from experience where wisdom is reached only through the pursuit of philosophy. Over the course of a lifetime, individuals are privy to innumerable experiences that shift according to recognizable patterns. Prudence is the virtue of aptly responding to patterns one has experienced before, as recognizing what has caused one pleasure or pain in the past and proceeding accordingly to one's interests in the former or the latter.

But, prudence, although a worthwhile virtue, parts ways with Machiavelli's virtue that is tantamount to control and prediction. Prudence can only be expected to control and predict if the experiences one encounters throughout life are nearly identical. In Machiavelli's cosmos, however, human affairs are subject to continual flux. Referring back to the *Tercets on Fortune*, Machiavelli's rich imagery of humanity riding not one, but many wheels of fortune, indicates the level of variability he is interested in educating the prince

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[177] Benjamin P. Newton, "Glossary," in *On Duties*, trans. Benjamin P. Newton (Ithaca, NY: Cornell University Press, 2016), 210.

[178] Moreover, prudence is the reasoning virtue associated with usefulness or according to the utility of fulfilling one's interests. Wisdom, by contrast, being the virtue associated with knowledge of things divine and human, is the virtue that considers truthfulness. Although it is beyond the scope of this dissertation to pursue how truth and usefulness are distinguished, Cicero's *On Duties* is an extended treatise probing the conflict between the honorable and the useful and how the virtue of wisdom adjudicates between the two.

in mastering.[179] This sort of variability limits the effectiveness of prudence against fortune. Virtue extends beyond prudence because it bends with this fluxity.

The remaining remedy Cicero offers is philosophy itself. Philosophy is a means to escape or overcome fortune by cultivating a contempt for "human concerns:"

> These things are easier for philosophers, insofar as their lives are less exposed to the many things that fortune may bring; they want for much less, and, if they counter some adversity, they cannot fall as far.[180]

In this regard, philosophy is used as an internal, contemplative means to weather fortune, regardless if it brings good or bad things. In the *Tusculan Disputations*, Cicero describes philosophy as the medicine of the soul. Machiavelli's virtue, as shown in his frequent tales of the early death of great men, is ultimately powerless against the specter of death. Machiavelli's teachings are oriented solely towards this-worldly concerns, neglecting all but the barest mention of the afterlife. Certainly, he does not admonish princes to care for their heavenly soul! Cicero, meanwhile, understands that death, particularly the fear of death, weighs heavily on the mind, shadowing human happiness. He offers philosophy as a means to soothe the wearing agitations deriving from the vicissitudes of life and fortune.[181]

Good fortune may also have its pitfalls for the lucky man. The more accustomed one becomes to periods of ease and prosperity, the more difficult it is when we are visited by adversity. Maintaining humility, even through periods of plenty, reminds us of "the

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[179] Machiavelli, *Tercets on Fortune*, 746.

[180] Cicero, *On Duties*, 1.73.

[181] Cicero, *Tusculan Disputations*, Book III and Book V.

precariousness of the human condition and the fickleness of fortune."[182] The role of philosophy in this contemplative remedy is an internal means to overcome the variability of fortune as it brings good and bad things to one's life. Cicero's position contrasts considerably with Machiavelli's. The latter prescribed political action, aided by his own philosophical teachings, to maneuver and steer fortune in directions better suited to one's aims. The only submission to fortune Machiavelli ultimately subscribes is to the seemingly inevitable, death and decay of the body.

2.6   CONCLUSION

Machiavelli's philosophical works are an extended treatise to his readers demonstrating the methods by which men can control what was previously thought to be under the control of god or chance. In doing so, he sought to put philosophy in the service of utility where truth is revealed only in effects or appearances. By arguing that man is a selfish, desiring being, he demonstrates that pursuit of self-interest is at the pinnacle of human excellence as in the virtuous prince that establishes new modes and orders. His reconfiguration of virtue emancipates individuals from conventional morality and the appropriate political aims of the time. Politics concerned solely with the fulfillment of material desires, not the cultivation of a virtuous character or salvation of the immortal soul, is now respectable.

His investigation of nature, influenced by ancient Epicureanism, begins and ends insomuch as it touches on human concerns. Thus, he does not offer an extended treatment of nature evident in later scientific discourse that sought to explain natural processes,

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[182] Cicero, *On Duties*, 1.91.

such as that surrounding motion or those responsible for natural disasters. Instead, he speaks of nature in terms of its intersection with human affairs as fortune, chance, or necessity. Likewise, Machiavelli does not speak a great deal about the nature of the gods, but only insomuch as humanity views god through the lens of religion. Thus, while Machiavelli's primary concern is politics, he cannot talk about man's conquering of fortune without first talking about matters seemingly outside of politics that nevertheless impinge upon it. His lessons on virtue required separating nature from providential or intelligible will that superimposed its own desires on human outcomes. It is a lesson so well-learned and practiced in modernity that Machiavelli himself could be said to be a founder of new modes and orders.

Machiavelli was concerned with gaining political power, and keeping it, but he was distinctly unconcerned with the quality of governance in the prince's rule that followed his ascension. While improved conditions for citizens may result from the prince's stable rule, the needs of the many are not the primary motivation for political action, but an ancillary effect of the aggrandizement of the prince. Thus, the legitimacy of the prince's political authority does not rest with the security or well-being of his citizens. Moreover, although he is writing in the early modern era, Machiavelli does not claim that political authority rests on the consent of the governed according to a social contract. The first philosopher to systematically present this idea, Hobbes, is the subject of the following chapter.

Instead, the prince's claim to political authority is based on his virtue evidenced in particular by the establishment of new modes and orders. By contrast, the political interpretation of natural disasters in the Introduction is based on the mutual obligations

between the government and its citizens. When citizens consent to be governed, it is with the concurrent understanding that the government has responsibilities and duties vis-à-vis its citizens as well. When disaster events occur now, the government and its institutions are expected to mitigate its effects and secure a robust recovery. Its performance in this regard is a litmus test for the quality of its governance and authority.

But, Machiavelli has little concern with the limited desires of those who do not wish to be ruled but those whose appetites are large, the glory-seekers. Risk, at least in its negative connotations of loss rather than gain, is inimical to those who merely desire security or an escape from pernicious rule. The glory-seekers, the would-be makers of new modes and orders, see risk primarily in terms of gain. Thus, perhaps Machiavelli does not wish to finally conquer fortune as it is responsible for bringing risk against which the virtuous prince can test himself. In this regard, disasters, as Machiavelli mentions in *The Discourses*, are also a kind of positive fortune because the deluges, famines, and plagues present an opportunity for humanity to renew itself and moments for the virtuous prince to assert his will as existing modes and orders are diminished.[183]

So, while Machiavelli's reconfiguration of virtue greatly expands the scope of human agency to intervene in the external world, he connects virtue to political action in notably limited ways. Politics is public insomuch as it occurs outside the household, is concerned with the just arrangement of the community, and is exposed to the praise and blame of one's peers. The public qualities of politics are especially important to Machiavelli since in his philosophy truth lies in the effects of actions, not in speech.

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[183] Machiavelli, *The Discourses*, II.5.

Political action is the only vehicle through which the effectual truth of the new prince's preeminent virtue is realized. Thus, while political action is a central component of his new political science, it is a forum for recognition of superlative individuals. It is not a forum in which justice for the common man is found or universal material needs are met. The virtue he describes, while potent, is necessarily limited to select individuals possessing the requisite capabilities and desires. In this regard, he is in accord with a primary tenet of ancient philosophy. The virtuous man is a truly exceptional, not a common, specimen. The marriage of this newfound agency against nature with political action that benefits man universally is first found in the philosophy of Hobbes, the subject of the following chapter.

CHAPTER 3.

HOBBES, DISORDER, AND ARTIFICE

"Calamity is hungry for him; disaster is ready for him when he falls."

– Job, 18:12.

"[It] is peculiar to the nature of man to be inquisitive into the causes of events they see, some more, some less, but all men so much to be curious in the search of the causes of their own good and evil fortune."

Hobbes, *Leviathan*

3.   HOBBES, DISORDER, AND ARTIFICE

3.1   INTRODUCTION

Thomas Hobbes is a key figure in analyzing the philosophical underpinnings of the political interpretation of natural disasters. As described in the Introduction, one of the crucial features of those policies is the role that the government has adopted vis-à-vis its citizens. Public expectations charge the state and its attendant institutions with protections from the destructive effects of disasters. Alongside Machiavelli, Hobbes is among the most critical thinkers in early modernity that shaped later ideas of the modern state, particularly as regards its basic obligations to the citizenry.

Those public expectations were philosophically produced through modernity's emphasis on mastering natural processes to better serve mankind. Hobbes is linchpin in the development of modern ideas about the capacity of the human will to exert its control over an unruly nature, particularly what is possible in the realm of politics. He observes that the defining characteristic of man is his capacity for identifying the relationship of cause and effect, but also for using that knowledge to control for the causes of our misfortune. Thus, Hobbes connects knowledge with power, or the ability to control future outcomes according to one's desires or interests. The Hobbesian state is the locus of such power in

modernity. Moreover, Hobbes not only identifies the means to overcome suffering, in doing so he also provides us with another explanation for suffering. While previously men and women might have attributed disaster or suffering to natural, divine, or random chance, Hobbes insistence on the responsibility of political institutions for order and security points the way towards another explanation – the political interpretation of disaster.

In many ways, the state of nature that Hobbes describes as the condition of man outside the political commonwealth is also a state of disorder. Disasters are characterized by conditions of profound disorder, oftentimes triggered through natural and technological processes. The disorder interrupts the enduring patterns of activity or routines of everyday life, inhibiting predictability and certainty. The Hobbesian state of nature outside politics shares many of these characteristics. He finds that the greatest source of disorder and uncertainty lies, like natural disasters, within natural processes. The natural process that Hobbes identifies, however, is the right to self-preservation that guides competitive, even violent, interactions in the state of nature.

The resulting profound insecurity similarly inhibits the stability needed to ensure human flourishing through the development of arts and sciences essential to cultural and economic progress. Much like modern citizens grant the control of risk inherent in disaster to political institutions, Hobbes's solution for the disorder in the state of nature was to arrogate the control of risk residing in physical insecurity to the sovereign by having individuals give up their natural right to self-preservation. The sovereign is a third-party, a guarantor that each person is abiding by the rules of the game established by the social contract on threat of punishment. The rules of the game constituted by the social contract are fundamental enduring patterns of routines that provide the

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predictability and certainty within the commonwealth. Physical molestation is an exception and the establishment of a sovereign with the capacity to punish transgressors is the exception routine. The "technology" that Hobbes mobilizes to impose predictability and certainty on the disordered, disastered state of nature is human artifice, a profound statement of the possibility of human agency to overcome the misfortune that is the inheritance of our imperfect world.

In his philosophy, Hobbes marries human agency found in the creation of knowledge to politics, setting the stage for the state as the political institution responsible for the physical security and comfort of its citizens. The single greatest source of man's evil fortune lies in political instability. The full promise of human civilization cannot be realized until a lasting political peace is established. Until that time, man exists in a state of nature that pits his desire for self-preservation against others, making life miserable. The most awesome of these efforts, he argues, occurred when human artifice is used to conjoin myriad individual wills into the single will of the sovereign, creating the political commonwealth, an agreement enforced by the "mortal god," the sovereign. The stability of this artificial state, in turn, rests on its ability to ensure the physical security of its citizens.

Thus, the control of risk, including the risk associated with disaster, is redirected to reside within political institutions of the state. But, implicit within this development is not only the recognition of risk, and the actors or institutions responsible for it, but also the possibility of risk management. In other words, it suggests that risk is manageable, that human intervention into the causes of disorder and misfortune is possible. This notion of risk management is another critical component of the philosophical production of risk in

modernity. Misfortune deriving from risk is not a condition to one which adapts or accepts, it is a condition that one alters or manages. Hobbes uses the concept of human artifice, in much the same way as Machiavelli uses virtue, to describe this capacity of individuals to render unsuitable conditions in the external world malleable to our needs and desires.

3.2   THE CAUSES AND REMEDIES OF SUFFERING

Hobbes's contribution to the philosophical production of risk in modernity is manifold. First and foremost, as the first political philosopher to systematically advocate the social contract as the appropriate basis for political authority, he cedes the responsibility for the security and well-being of citizens to political institutions. In his philosophy, the ultimate misfortune or disaster arises from disorder, which he attributes to the political instability that is the original or natural condition of humanity. The most maleficent component of disorder is physical insecurity, the threat of violent death, which generates anxiety and uncertainty, undermining the predictability necessary for the cultivation of civilization. Surmounting the universal suffering ensuing from disorder requires human ingenuity to impose order on a nature that is deficient in providing the conditions sufficient for flourishing. The requisite ingenuity is apparent in the human capacity for artifice. Physical security is synonymous with order and is the terms of the agreement sustaining the social contract. In turn, it places the onus of blame and obligation for contractual breaches with the residing political authority.

Developing a remedy for disorder requires identifying the cause of suffering. In doing so, Hobbes engages the two competing models for explaining disaster discussed in the Introduction, the model accounting for disaster by reference to divine intervention or will and the other accounting for disaster through the work of man. As unfolds in the

discussion below, Hobbes finds the first model grossly lacking and not only incapable of securing order but also inimical to its formation. Thus, one of the core tasks in his philosophy is dismantling this religious explanation in favor of explanations that offer man as the final remedy for order.

It is possible to tease out these models in Hobbes's philosophy by examining his implicit debate with the *Book of Job*.[184] The *Leviathan* is a work rich with biblical allegory, including the title itself which references the monstrous creature God mentions in his answer to Job's questions about suffering. Job is a man that suffers mightily from a series of calamities sanctioned by God. Though he seeks the reason, or cause, for his suffering, God's inscrutability defies causal reasons outside of those found within religion. It is this false religious causality for suffering that Hobbes rejects.

The *Book of Job* is a tale depicting God's test of Job's faith through harrowing trials of suffering. In the tale, God's nemesis challenges His power by testing God's humblest servant, Job.[185] The righteous man was blessed with a large family and wealth. Satan, a clever adversary, suggests to God that Job's faith is steadfast only because of the protection God provided him; take away that security and Job's faith will crumble.[186] God grants Satan leave to vex Job, who kills his family, takes away his property, and inflicts him with disease. Job enumerates God's wrongdoings to his friends, but all except Elihu cannot

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[184] Hobbes poses this question when he asks "why eveil men often prosper, and good men suffer adversity," referencing the trials of Job. The inconsistency between reward and punishment is difficult as it "hath shaken the faith, not only of the vulgar, but of the philosophers" and "of the Saints." His answer to this conundrum is through God's power as the maker of justice, not its adherent. Thomas Hobbes, *Leviathan*, ed. Edwin Curley (Indianapolis, IN and Cambridge: Hackett Publishing Company, Inc., 1994), xxxi, 6.

[185] *Job*, 1:3.

[186] *Job*, 1:9-11.

adequately answer Job's charges. Elihu tells Job, "Who has prescribed [God's] ways for Him?," centering on the inability to identify causes for Job's suffering except the inscrutability of God.[187]

The only adequate remedy for Job's suffering is submission since humanity cannot account for the causes of suffering or misfortune outside of God's will, which is unknowable. One could surmise that obedience to God's will, partially unveiled through revelation, could be a remedy. But, clearly Job's steadfast obedience has not protected him from calamity. Although he believes himself to be a righteous man, his anxiety and uncertainty are evident as each year he has his children purified to forestall punishment. Since God's will follows no recognizable or knowable pattern, it is difficult to discern it from mere chance. Divine punishment can visit those that make even the most arduous efforts to avoid it.[188]

3.3   MATTER IN MOTION

Hobbes dismisses the divine causality apparent in the *Book of Job* as an explanation for the suffering of humanity. Instead, he offers an alternative causality that finds suffering in mankind's original condition in the state of nature deriving from the disorder of political instability. The remedy is not obedience to the inscrutable God, or the endurance of suffering, but the institution of a scrutable mortal god, the sovereign, constituted by human artifice. Before Hobbes can dismiss the providential God, he must first demarcate a

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[187] *Job*, 36:23; Keally McBride, "State of Insecurity: The Trial of Job and Secular Political Order," *Perspectives on Politics* 6, no. 1(2008): 11-20.

[188] McBride, "State of Insecurity," 11-20.

comprehensive alternative cosmology that explains the functioning of nature, and thus mankind, in His silence.[189]

The alternative cosmology he provides as a background for political stability and order is one comprised of matter in motion, pure body without the admixture of incorporeal substances, in ceaseless motion. In its constant fluxity, it has an order of sorts, but not one that offers prescriptive remedies for the appropriate manner in which men and women can live without the uncertainty and anxiety of physical insecurity. Dismissing incorporeal substances, and thus a universe guided by divine providence, also meant that occurrences can no longer be adequately explained through divine will. Thus, Hobbes, alongside Machiavelli, deals a severe blow to explanatory models of misfortune and disaster that attributed the events to the will of God. Moreover, shuttling aside providence also made room for a secular political order that had its ends in provisioning the needs of the body rather than the soul. In the absence of divine authority suggested by incorporeal substances, Hobbes insists on leveraging human artifice to impose order on an unruly nature.

The philosophy of Thomas Hobbes is a systematic edifice skillfully constructed definition by definition, chapter by chapter. Comprehending his political philosophy requires disembarking where Hobbes himself did – at the beginning. Indeed, his philosophical trilogy, the works *De Corpore*, *De Homine*, and *De Cive,* were intended to be published in that order to treat the conundrum of political order by introducing the

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[189] As Ward observes, "The remoteness of God actually creates space for the autonomous ruler of the secular; this rule being characterized by endless and immanent agonistic forces." Graham Ward, *Cities of God* (London and New York: Routledge Press, 2000), 129.

progressive foundational components first – *On Body*, *On Man*, and finally, *On Citizen*, suggesting a systematic inquiry in political things that begins with musings on matter:

> I was studying philosophy for my mind's sake, and I had gathered together its first elements in all kinds; and having digested them into three sections . . . so as in the first, I would have treated of *body* and its general properties; in the send of *man* and his special faculties and affections; and in the third of *civil government* and the duties of subjects.[190]

The beginning, for Hobbes, required answering two crucial questions that ultimately supplied answers to questions regarding the construction of political authority in the modern state and the proper ends to which the resulting power should be directed. What sort of substance makes up the world? What gives the substance motion and how is it ordered? Hobbes answers to these questions centers on the material universe and the desires of living creatures that gives it motion.

In Hobbes's time, learned men relied on the philosophy of Aristotle to answer the questions listed above. For Hobbes, the Aristotelian answers disseminated among the learned of his day were foundationally flawed; no mere patchwork mending could restore the façade. Instead, it required a near wholesale demolition. The knowledge he defended has important political and moral implications for modernity, particularly with regard to the legitimation of political authority since his cosmology dismissed a divine or natural reason for political community. In the absence of god and nature, man must create that authority for himself.

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[190] Thomas Hobbes, *Man and Citizen (De Homine and De Cive)*, trans. and ed. Bernard Gert (Indianapolis, IN and Cambridge: Hackett Publishing, 1991), 102-103. Hobbes was pressured, however, to publish *De Cive* first

The idea of a wholly material universe mirrored the cosmology of Lucretius, the ancient Epicurean, described in his epic poem *On the Nature of Things*.[191] Hobbes, outside Machiavelli, was the first in modernity to rehabilitate Epicureanism against its detractors in the ancient and medieval world. Epicureanism, after all, advocated pleasure as the measure for ethical behavior. In the poem, Lucretius argues too that the universe is comprised of the indeterminate motion of matter in empty space. The world was not special, or unique in any way, but just one among the infinite existing and possible worlds. In the material world, chance accounts for the arrangement of matter, even the bodies of living creatures, not any divine or natural plan. Moreover, the premise of a material universe crowds out any room for immaterial or incorporeal substances. Atmospheric or terrestrial events that spawn disasters in human communities, for instance, are no longer understood as manifestations of divine wrath, but the result of knowable material forces. The possibilities this opens up for the intervention of man in the external world is tremendous.

While this rules out the possibility of a providential god that oversees the smaller details and larger patterns of our lives, it also means that we no longer need to fear the influence of the immaterial. A providential god is a manifestation of the divine that oversees the creation of a purposeful universe, one that is orderly and perfect. In an orderly

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[191] The philosophy of Epicurus, a Greek who died in 270 B.C., survived mostly in the work of Diogenes Laertius, the *Lives of Philosophers*; Plutarch's *Moralia*; and in the extended discussions of Epicureanism in Cicero's *On Moral Ends* and the *Tusculan Disputations*. Although influential Church fathers like Augustine and Jerome routinely denounced Epicureanism as godless and immoral, the rehabilitation of Epicureanism began as early as *quattrocentro* Florence that later became the epicenter of the Renaissance. As noted in Chapter 2, the influence of Epicureanism is already notable in Machiavelli's works, particularly *The Prince*.

and perfect universe, the lives of men and women are also purposeful, guided by an unseen hand.[192]

Hobbes did not shy from the implications of a plenist, or materialist, answer to the most important questions.[193] His universe existed in God's silence, one in which man, not nature or god, would provide the ultimate direction and solutions for political order. Thus, while Hobbes's philosophy does not make room for a providential god, it does make room for a mortal god in the person of the sovereign, the Leviathan.[194] But, doing so depended on gaining the universal assent of men and women to a social contract by offering demonstrable proofs of the causes and effects of order and disorder.

3.3.1 The Mastery of Nature

In *The Prince*, Machiavelli explicitly discussed the control of nature through mastering the variability of fortune. Hobbes's project is no less provocative, but his views on man's capacity for exerting his will on nature more subtly woven in his philosophy while also being more dexterously integrated into his overall project. Much like the cosmology that Machiavelli hinted at in his philosophy, Hobbes's cosmology is one filled with variability and uncertainty generated by a universe comprised of matter and motion. Indeed, in the absence of any Aristotelian forms, matter colludes into the physical world through sheer random accident resulting from its ceaseless motion. Hobbes seeks to impose

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[192] Edward Grant, *Much Ado about Nothing: Theories of Space and Vacuum from the Middle Ages to the Scientific Revolution*, (New York: Cambridge University Press, 1981), 4.

[193] Sarasohn notes that Hobbes was not the first early modern philosopher and scientist to develop a cosmology based on mechanistic motion. That honor belonged to the Frenchman Pierre Gassendi, who was the first philosopher to publish a work relating the correct principle of inertia. For Gassendi, however, the universe still remained a providential one. Lisa T. Sarasohn, "Motion and Morality: Pierre Gassendi, Thomas Hobbes, and the Mechanical Worldview," *Journal of the History of Ideas* 46(1985): 363-379.

[194] "This is the generation of that Great LEVIATHAN, or rather (to speak more reverently) of that *Mortal God* to which we owe, under the *Immortal God,* our peace and defence." Hobbes, *Leviathan*, xvii, 13.

predictability, control, and order on disordered nature that is the primary source of human suffering. But what accounts for disorder in Hobbes's philosophy? The disorder in the state of nature is attributed to the selfishness of humanity, the insistence on Aristotelian incorporeality in the universe, and the influence of both conditions on identifying and demonstrating true knowledge that can form the basis for political stability and order.

There are several components within Hobbes's cosmology that present obstacles to the realization of a stable political community. As discussed above, one of the first of these obstacles is simply the absence of guidance from either natural or divine sources on constituting political authority. This means that in the state of nature, men and women exist in a pitiable state, living out a constant struggle against others to preserve their very lives.[195] In this state, Hobbes's argues, it is not possible to enjoy the fruits of civilization, whether that is security or improved economic conditions.[196] In other words, the original state of nature in which man finds himself is grossly insufficient. It is a condition that must be overcome, or mastered, in order for people to live satisfactory lives.

Another source of disorder emerges from the inherent selfishness of man. The relentless pursuit of self-interest in the state of nature, particularly the pursuit of glory and honor, is a troublesome source of disorder and insecurity in the state of nature. It is this ceaseless, chaotic desire that Hobbes fixates on subduing. As Machiavelli so aptly describes, there are some people with appetites larger than others who seek the glory that comes with ruling

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[195] Hobbes, *Leviathan*, xiii, 9. In the state of nature, the natural state of man, there is a lack of security as each individual wars against one another. Under such conditions of instability and insecurity, civilization is stunted such that there is "no place for industry, because the fruit thereof is uncertain, and consequently, no culture of the earth, no navigation, nor use of the commodities that may be imported by sea . . . no knowledge of the face of the earth . . . no arts, no letters, no society."

[196] Ibid., xiii, 9.

over others. In chapter 6 of the *Leviathan*, Hobbes reconfigures the conventional definitions of common virtues and characteristics as motions away and towards a thing – appetite and aversion. Here, he observes that "[joy] arising from the imagination of one's own power and ability is that exultation of the mind called glorying."[197]

Hobbes also notes a key difference between forms of glory. If one's assessment of his own glory is based on experience of former actions, then the assessment has firm evidentiary grounding and is synonymous with confidence. Another kind of glory, and probably the most common, is vainglory, which arises solely from the flattery of others or one's own assessment absent any evidentiary grounding.[198] Even if there is such grounding, indisputability demonstrating the evidence of one's superiority is problematic insomuch as persuading others of one's own merit is difficult. The vainglorious not only lack appropriate knowledge of themselves, they are "rash and pugnacious," prone to disorder and violence to force their inflated opinions on others.[199] That is, they are dangerous to security and order. Thus, the very glory seeking that Machiavelli found so compelling is precisely the facet of human nature that Hobbes wishes to master for a stable commonwealth that serves not one, but all, of its citizens.

3.3.2 **Appetite and Aversion**

In Hobbes's cosmology, the universe is comprised of matter and purposeless motion. The engine driving motion, and thus the actions and opinions of men and women, is their desires. It is these variable desires that are the basis for deciding between what is

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[197] Hobbes, *Leviathan*, vi, 39.

[198] Ibid., viii, 18; vi, 39.

[199] Julie E. Cooper, Vainglory, Modesty, and Political Agency in the Political Theory of Thomas Hobbes," *The Review of Politics* 72(2010): 241-269. See also Hobbes, *Leviathan*, xi, 12.

appropriate and inappropriate, just and unjust, or good and bad things. Matter is built from the random collisions, not teleological forms. The only order underlying the universe, then, is matter in perpetual motion. Desire, or preferences, for some things above others is wholly individual, so in this sense motion still obtains qualities of chance or accident insomuch as individual preferences are not predetermined in any fashion. Although Hobbes presents much of the desires of individuals as conventional, he does identify one crucial desire, the desire for self-preservation, as universal and a fundament of human nature.

Given the senseless motion of matter, Hobbes's primary task is overcoming the problem of disorder in the absence of politics. Nature is neither teleological nor providential, so it provides little in the way of guidance of how to constitute authority in the political community. The Aristotelian concept of teleology explains the end or goal of all things according to their nature.[200] Teleology suggests that specific qualities that inhere in the ideal form of something's nature determines the content of the end or goal. All of living beings' growth and activity is striving towards this end.[201]

Moreover, teleology also suggests a final resting place when striving is fulfilled through a natural end. But, in the Hobbesian material universe, the motion of material is

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[200] Aristotle, *Physics,* Book II, 3. Here, Aristotle associates form with a type of cause and an end: "One way cause is meant, then, is that out of which something comes into being, still being present in it, as a bronze of a statue or silver of a bowl, or the kinds of these. In another way, it is form or pattern, and this is the gathering in speech of that what-it-is-for-it-to-be, or again the kinds of this . . .. and the parts that are in its articulation. . .. And in still another way it is mean as the end."

[201] Ibid., Book II, 7. Aristotle explains that form is necessary for coming into being and generation, "It is clear then that if there are causes and sources of the things that are by nature, from which first things they are and have come to be not incidentally but what each said to be in virtue of its thinghood, then everything comes to be out of something underlying and form." Hobbes, by contrast, identifies two forms of motion in living beings, voluntary and involuntary motions, whereby the former is driven by desires and the latter occurs in the process of growth. While Aristotle views generation or growth as purposeful movement towards an end guided by a being's form, Hobbes does not identify involuntary motions of growth in the same manner. Instead, the involuntary motions are described as common biological functions, "such as are the *course* of the *blood*, the *pulse*, the *breathing* . . . to which notions there needs no help of imagination." Hobbes, *Leviathan*, vi, 1.

driven by chance or accident, not a path guided by nature in forms. In the absence of this teleology there is no final good to which all men strive towards and no point of rest once the hunt has concluded. If a *finis ultimus* or *summum bonum* suggests rest and final fulfillment, desire suggests only perpetual motion. When describing those "manners or dispositions" most apt to lead to civil obedience, or peace, Hobbes points to the "felicity of life" which rests not in a tranquil or restful mind, due to the absence of any final end, but to the perpetually desiring mind, capable of acquiring not only its present desire, but also the promise of acquiring its future desire, i.e., the contented or commodious life.[202] Ensuring peace and stability once and for all requires taming desire into more salutary channels.[203]

Hobbes's description of man posits desire as the basis for all voluntary motions of men and women. Voluntary motion, "as to *go*, to *speak*, to move any of our limbs, in such a manner as is first fancied in our minds."[204] It begins with an endeavor, the impetus for which is desire, either moving towards or moving away from something, a self-generating capacity for motion existing only within living organisms. But why do men and women desire the things they do? Hobbes identifies the good with the pleasant. Man has a psychology of desire that encourages him to "desire the good for [himself]," comprising a physiological order.[205] Simply, individuals desire those things that are pleasant, and those things that are pleasant are deemed good while those that are unpleasant are deemed bad, "*Pleasure*, therefore, or *delight*, is the appearance, or sense, of good; and *molestation*, or

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[202] Hobbes, *Leviathan*, vi, 58 and 59; 70.

[203] Ibid., chapter xi.

[204] Ibid., xi, 38.

[205] Hobbes, *De Homine*, 48.

displeasure, the appearance, or sense, of evil."[206] In the material universe, one can no longer say that something in the objects we observe themselves gives rise to the designations, rather man's sense, coupled with the capacity for naming, has produced the "good" and the "evil."[207] This means that good and evil are artifacts of language, not divine or natural, excepting the desire for self-preservation.

With the denigration of the good to the pleasant, men and women cannot be said to have a political nature as justice and injustice are not apparent in solitary man but only in the citizen. The material universe first precludes a natural hierarchy that grants legitimate political authority to some over others, leaving men and women in a condition of radical equality.[208] Hobbes's insistence on equality is among the most distinguishing characteristics of his philosophical thought. By it, he asserts that there is no characteristic that substantively renders a man or a woman more suited to rule than others, whether that characteristic is wisdom, courage, strength, magnanimity, or nobility.[209] Brute strength, for instance, is readily deterred by stealth.[210]

The radical equality of every individual precludes the possibility of an individual or governing body exercising dominion by right of some superiority, whether divine,

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[206] Hobbes, *Leviathan*, vi, 11.

[207] "For these words of good, evil, and contemptible, are ever used with relation to the person that useth them, there being nothing simply and absolutely so, nor any common rule of good and evil, to be taken from the nature of the objects themselves. . . " Ibid., vi, 7.

[208] Equality derives from several sources. Hobbes makes clear that individuals all have a similar capacity in prudence, endowed by experience, not nature, and in their ability to harm one another, such that no man is sufficiently wiser or stronger than another to justify dominion over others by nature. Furthermore, the wholly material universe ensures that a person's value is derived conventionally, not by one's intrinsic worth, as individuals have no natural value but only that which others assign to them. "The *value*, or WORTH of a man, is as of all other things, his Price; that is to say, so much as would be given for the use of his power, and therefore is not absolute, but thing dependent on the need and judgment of another." Ibid., x, 16.

[209] Ibid., xv, 21.

[210] Ibid.

intellectual, or economic. If authority is not legitimated on the right of some to rule over others, what is the source of legitimate authority? In the absence of a natural or divine sanction, power derives from consent, leaving all human interactions and relationships, even those present within the family, contractual.[211] But, Hobbes's material universe does not allow for the simply good, so it precludes the possibility of agreement among individuals on what is right and wrong.[212] Instead, the simply good is reduced to mere individual preference that manifests as movement towards something, appetite, or away from something, aversion. Individual preference therefore accounts for what is commonly called justice and injustice.[213] Actual justice and injustice, apart from individual preference, does not arise until the erection of positive law by the sovereign in a commonwealth properly constituted through consent among the ruled. Justice is what the sovereign designates as justice. In this regard, universal "right reason," i.e., one leading to the simply good, is individual reason, the association of the good for the pleasant, erroneously attributed to some objectively known qualities of "rightness and wrongness" inhering in things.[214]

The denigration of universal right reason to individual preference presents a dilemma when individuals transition from the apolitical state of nature to a political state in the commonwealth. If authority is needed, but no authority exists by nature, how can

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[211] Paternal power, the authority of the father, "is not derived from the generation, as if therefore the parent had dominion over his child because he begat him, but from the child's consent. . ." Furthermore, the precedence of the father over the mother is not due to any natural superiority of men over women, but from convention of civil law. Hobbes, *Leviathan*, xx, 4.

[212] As Hobbes notes, "At times one can also talk of a good for everyone, like health; but this way of speaking is relative; therefore one cannot speak of something as being simply good; since whatsoever is good, is good for someone or other." Hobbes, *De Homine*, 47.

[213] Hobbes, *Leviathan*, xiii, 13.

[214] Ibid., 7. Richard Tuck, *Hobbes: A Very Short Introduction* (Oxford: Oxford University Press, 1989), 57-58.

men and women erect the commonwealth needed to live a more properly human life, with all the advantages of culture and commerce? For Hobbes, the answer lies in a shift from agreements on the good to those of right.[215] It was the insistence on the objective moral properties of things that disrupted the possibility of a peaceful life and as such represents a fundamental problem of man's social relations.[216] Individuals certainly cannot agree on moral matters, but as fundamentally desiring beings whose voluntary motions are determined by desires, men and women can agree on the utility of the ultimate primal desire – the "right" to self-preservation.[217] In his introduction to the *Leviathan*, indeed, Hobbes notes that his doctrine "admitteth no other Demonstration" than that procured by the individual in examination of himself.[218]

It will be the passions, not reason, that guide political and ethical life, and in the process, individuals are transformed from pursuers of excellence and virtue to pursuers of security and wealth, directing all political association towards secular ends. Reason here merely suggests man endeavors towards peace, a foundation upon which to agree and found the social contract.[219] Despite the eminently demonstrable proof of the natural right

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[215] It was what Strauss referred to as political hedonism, harkening back to Epicurean influences, but for the first time, Hobbes used the notion of the pleasant as good for political purposes. Leo Strauss, *Natural Right and History*, (Chicago & London: University of Chicago Press, 1965), 186-187. Likewise, the turn to rights was also a turn away from distributive justice, where each person receives what is owed, indicating some are owed more fully than others, to justice simply, where one cannot arrogate to himself more rights than another without compact due to man's radical equality. Hobbes, *De Homine*, 39-40.

[216] Hobbes, *Leviathan*, viii, 21 and Tuck, *Hobbes*, 55.

[217] In doing so, Hobbes borrowed heavily from Hugo Grotius. Individuals everywhere are concerned with self-preservation, but it was not until Grotius that it evolved into a moral principle. Hobbes, however, added a relativist twist to the moral order lacking in Grotius' work. Tuck, *Hobbes*, 51-52. See also Hobbes, *Leviathan*, chapter xiv.

[218] Ibid., Introduction, 4.

[219] Because the universe is comprised solely of matter and motion, men and women's thoughts follow no prescribed, logical path because no such path exists in the universe itself. Without order, it is desire that gives cogency to an individual's otherwise scattered thoughts as to desire is to seek or contemplate the desired thing. In this sense, desire enables reason. Ibid., iii, 4; xiv, 4.

of self-preservation, peace does not "naturally" follow consensus on this matter. Right, the fundamental fact of the human condition, suggests no particular action, only defines the space in which perfect liberty exists. It entails no obligation, no duty, only right.[220] The best way to ensure one's life is still a matter of individual interpretation which leads to conflict. The natural law, which tells men and women to seek peace, is unfulfilled in the state of nature until the requirements of civil society are met – the subordination of consenting, contracted body to a sovereign power.[221]

It is the fulfillment of desire that Hobbes sets as the enticement for individuals to forgo their natural liberty. As civil disobedience is contingent on the fulfillment of desire, it becomes the government's obligation to ensure the opportunity for the existential and material welfare of its citizens. Hobbesian politics is a politics devoted to serving the needs of our physical selves. As he notes in the *De Cive*

> But by safety must be understood, not the sole preservation of life in what condition soever, but in order to its happiness. For to this end did men freely assemble themselves and constitute a government, that they might, as much as their human condition would afford, *live delightfully*.[222]

Part of the civil bargain was the recognition that the state, which stripped men of their natural liberty, paid its citizens back in spades by ensuring they had what they needed for their continued delectation.

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[220] Hobbes notes that "RIGHT consisteth in the liberty to do, or to forbeare; Whereas LAW determineth, and bindeth to one of them: so that LAW, and RIGHT, differ as much, as obligation, and liberty; which in one and the same matter are inconsistent." Ibid., xiv, 3 and 4.

[221] Ibid., xiv, 4.

[222] Hobbes, *De Cive*, 259. Emphasis is my own.

3.3.3 Corporeal, Incorporeality, and Knowledge

Hobbes emphasis on grounding political authority in the knowledge of causes and effects requires on the one hand demonstrating the proper methodology for deducing cause and effect but on the other the possibility of such knowledge. The demotion of the advantageous, the just, and the good, to a matter of individual preference precluded the possibility of agreement on first principles through reason. Rather, it was the imperatives associated with the body – self-preservation and commodious living – common to all men and women everywhere, and capable of demonstration, that secured a commonwealth amongst a society of individuals. The absence of proper methodology led to ignorance of true causes, which in turn encouraged men and women to seek causes in fear and superstition, especially religion, which emboldened the authority of the Church. Thus, securing disorder was a problem of knowledge, but also a problem grounded in theories of substances comprising the universe since religion and Christian doctrine rested on cosmological assumptions of incorporealism. Hobbes dismissed the possibility of incorporeal substances, like souls, and insisted on the materiality of the universe, consisting only of bodies and matter, making knowledge of true causes, and therefore order and stability, possible.

Hobbes' emphasis on desire as the foundations for political life are connected to his views on natural philosophy and epistemology.[223] In this regard, for Hobbes, and for not a few of his contemporaries, confronting the nature of the universe and the problem of

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[223] Michael Oakeshott, *Hobbes on Civil Association* (Berkeley and Los Angeles: University of California Press, 1975), 146. "But as I see the matter, Hobbes was never a scientist in any true sense, that is, his science is really conceived throughout as epistemology. He is never concerned with the scientific observation of the natural world, but always with what the character of the world must be if we are to have any knowledge of it; he is not concerned with the natural world for its own sake, but with the cause of sensation."

knowledge was a simultaneous address to the pressing problem of political and social order: "Show men what knowledge is and you will show them the grounds of assent and social order."[224] Desire, especially self-preservation, was demonstrable knowledge capable of producing assent to a contract ensuring political order. However, natural philosophers of the time debated on the best way to address this problem of epistemology.

For Hobbes, political and social disorder arose from several sources. Already mentioned previously, one is the passions of men, particularly glory. But, another crucial source of disorder arises from the Aristotelian philosophical tradition of the Scholastics. First among the Scholastics' crimes against humanity is "absurd speech." The speech, and the suppositions it supported, was responsible for the bifurcation of sovereignty, housed in both the Church and the secular government, which led to conflicts between the two competing sources of authority.

Among the central arguments that ground Hobbes's political philosophy regards the substance that fills the universe. He contended, against Aristotle, and against the Church, that the only substance comprising the universe was wholly material, wholly matter. He vigorously inveighs against the Aristotelian supposition that incorporeal bodies form part of the universe, the "doctrine of abstract essences."[225] Aristotle's position on incorporeal substances was inextricably bound with Christian theology at the time, which contributed to chaos and instability present in the state of nature.[226] Indeed, Hobbes referred

[224] Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton: Princeton University Press, 1985), 100.

[225] Devin Stauffer, "'Of Darkness from Vain Philosophy': Hobbes's Critique of the Classical Tradition," *American Political Science Review* 110, no. 3(2016): 481-494.

[226] Ibid.

to the ancient philosophers as the "champions of anarchy."[227] The positions between the

two perspectives is aptly captured in the debate between the vacuists and plenists during

Hobbes's time.[228] While the vacuists, following Aristotle, argues for the possibility of a

space void of matter, therefore allowing for the presence of immaterial and incorporeal

substances, the plenists argue for a purely material universe. [229] The insistence of the

vacuists on the existence of incorporeal and immaterial substances resulted in a bifurcated

vision of reality and authority.[230] While the vacuists arguments benefitted the priests by

legitimating their authority, elsewise it benefitted few. Fear of the invisible agents of

demons, spirits, and ghosts responsible, in the eyes of the naïve, for many a calamity due

to an ignorance of natural causes, lent authority to the class supposing to have knowledge

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[227] Hobbes, *De Cive*, 12.3 Anarchy also arose from the philosophers' distinction between tyrants and just rulers, encouraging tyrannicide, as in Cicero's support of the assassination of Julius Caesar.

[228] Hobbes, *Leviathan,* xxxiv, 1. Hobbes denies the existence of the vacuum, or matter devoid of space, "The word body, in the most general acceptation, signifieth that which filleth or occupieth some certain room or imagined place, and dependeth not on the imagination, but is a real part of that we call the universe. For the universe, being the aggregate of all bodies, there is no real part thereof that is not also body, nor anything properly a body that is not also part of . . . the universe." Always concerned with how natural philosophy impinged on human things, Hobbes dismissal of the vacuum was based in part on his insistence on corporeal matter, and only corporeal matter, within the cosmos. His ideas on corporeality were directed against the Aristotelian Scholastics, who argued for the existence of incorporeal substances that explained the activity of God and spirit in the world. Hobbes rejected the philosophical assertion because it ultimately divided political authority between heaven and the earthly sovereign, preventing lasting political stability and order. Shapin and Schaffer, *Leviathan and the Air-Pump*, 92-99. See also Wisner Descartes, "Principles of Philosophy*"* in *The Philosophical Writings of Descartes*, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1988), 2:16. Descartes denies the possibility of a vacuum, "With regard to a vacuum, in the philosophical sense of the term, that is, a space in which there is no substance, it is evident that such does not exist, seeing the extension of space or internal place is not different from that of body. For since from this alone, that a body has extension in length, breadth, and depth, we have reason to conclude that it is a substance, it being absolutely contradictory that nothing should possess extension, we ought to form a similar inference regarding the space which is supposed void, viz., that since there is extension in it there is necessarily also substance." But, Descartes did argue that some sort of aethereal vortices that for the motion in the universe, including motion associated with gravity. While his solution sounds esoteric to modern readers, he attempted, much like Hobbes, to discount occult explanations for observable phenomena in the natural world, instead seeking mechanical explanations in familiar impact physics: things move because they are struck by an adjoining body. Bodies are continually impacting because there is no void in the universe that is empty of matter. In Descartes's universe, it is the aethereal substance or primary matter that does the work of pushing or impact that results in motion. J.T. Dobbs, "Stoic and Epicurean Doctrines in Newton's System of the World," in *Atoms, Pneuma, and Tranquility: Epicurean and Stoic Themes in European Thought,* ed. Margaret J. Olser (Cambridge: Cambridge University Press, 1991), 227-228.

[229] The path from Aristotle's position on a vacuum in the fourth book of the *Physics* and medieval notions of incorporeal substances and the vacuum is a convoluted one and is beyond the scope here.

[230] Shapin and Schaffer, *Leviathan and the Air-Pump*, 98.

of them – the priests. As a result, men and women owed a "double tribute," one to the civil authority, and the other to the priests, leading to civil war and strife as man cannot peacefully serve two masters.[231] For Hobbes, the priests arrogated to themselves authority that properly belonged to the sovereign. This represents the greatest abuse of Scripture, the assumption that the Church represented the Kingdom of God and required a mouthpiece on earth to speak and give laws.[232]

The doctrines of essences, moreover, was couched in absurd speech that made the pursuit of true knowledge of cause and effect precarious. The Aristotelian Schoolmen talked of "immaterial substances," which presented the same rational difficulty as the phrase a "round quadrangle."[233] Hobbes compares the sloppiness of the absurd speech with the elegant precision of numbers in geometry. The precise speech used in geometry, linking sounds to readily definable notions like numbers, is the type of precision Hobbes argues is necessary for a truly civil philosophy. Thus, it is that

> words are wise men's counters, they do but reckon by them: but they are the money of fools, that value them by the authority of an *Aristotle*, a *Cicero*, or a *Thomas*, or any other doctor whatsoever, if but a man.[234]

Individuals can agree on numbers, that two plus two equals four, regardless of their individual preferences or desires. By contrast, senseless definitions, accepted on authority rather than demonstration, often infused with an unacceptable mysticism to which no proof

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[231] Shapin and Schaffer, *Leviathan and the Air-Pump*, 96-97.

[232] "The greatest and main abuse of Scripture (and to which almost all the rest are either consequent or subservient) is the wresting of it to prove that the kingdom of God . . . is the present Church . . . Consequent to this error (that the present Church is Christ's kingdom) there ought to be some one man, or assembly, by whose mouth our Saviour . . . speaketh, and giveth law . . . ." Hobbes, *Leviathan*, xliv, 4.

[233] Ibid., v, 5.

[234] Ibid., iv, 13.

can be offered, are dangerous, "and reasoning upon them is wandering amongst innumerable absurdities; and their end, contention, sedition, or contempt."[235] Without firm grounds for agreement, especially universal agreement, a stable, secure political community is not possible. In this regard, Hobbes's criticism of the Scholastics is founded on his concern for rendering philosophy into the service of all men and women, not for a concern with knowledge for the sake of knowledge.

The problem of the divided reality, which is itself both a problem of knowledge and a problem of order, is solved by Hobbes by "collapsing the hierarchical division between matter and spirit," where the former triumphs, giving precedence to civil authority.[236] It is matter, not immaterial substances, of which the universe is comprised, rather, "The World (I mean not the earth only, that denominates the lovers of its *worldly men*, but the *universe*, that is, the whole mass of things that are) is corporeal, (that is to say, body)."[237] Likewise, it is only matter that is responsible for the motion in the universe. As a result, all of men and women's sensing, experiencing, acting, and knowing, can be understood and described in terms of matter and motion, as discussed above.[238]

Hobbes provided physiological, not immaterial, explanations for the causes and effects apparent in the world. In doing so, he negated the existence of souls, of places like heaven or hell, and, most importantly, of a providential universe. Therefore, unlike Descartes and his followers, the motion of matter did not result from an outside agency, like God, or an

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[235] Hobbes, *Leviathan*, v, 20.

[236] Shapin and Schaffer, *Leviathan and the Air-Pump*, 98.

[237] Hobbes, *Leviathan*, xlvi, 15.

[238] In the absence of immaterial substances, like souls, the origination of motion is always the motion of a contiguous body.

internal immaterial substance, like the transcendent soul.[239] As we shall see below, Hobbes

did establish an order, one present in living as opposed to inert matter, but is a physiological

order incapable of securing peace. It is human artifice, especially language, which allows

for the social contract establishing the sovereign and the body politic, not nature. Speech

enables many good things, including the ability to communicate knowledge; obedience as

men and women can understand commands; and commodious living as it allows

individuals to covenant with one another.[240]

Hobbes understood that the purview of philosophy was not only in discovering

regular laws for the benefit of mankind, but also persuading others of its importance so that

everyone can enjoy its fruits. But how to appropriately account for motions of matter, and

of men, in the world, and more importantly, persuade others of its efficacy? Political order,

and overcoming human suffering, is also a matter of knowledge and demonstrating

knowledge to others.

For Hobbes, man is distinguished from mere beasts by his innate curiosity to search out

cause and effect.[241] Moreover, he is curious of enquiring into them, or the "causes of their

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[239] Paul P. Christensen, "Hobbes and the Physiological Origins of Economic Science," *History of Political Economy* 21, no. 4 (1989): 689-709. For his contemporaries, like Descartes and Boyle, the "capacity for motion and action was due to God . . . Living bodies were machines lacking feeling, understanding, purpose, and self-motion. These functions were provided by the soul. Motion came from God." By contrast, Hobbes precluded any supernatural explanations in his philosophy. For Christensen, this also points to a physiological, rather than a mechanistic, theory where living organisms have the capacity for self-generated motion.

[240] But, in using language to signify general rules for living well, language also puts man at a severe disadvantage, for it means that we can err in our conclusions about the proper way to live, and furthermore, we can lie to one another about the proper way to live, providing inaccurate information needed to secure peace and happiness. It is because of the latter disadvantages that one cannot say that speech makes humans better, but it does provide them with greater possibilities for living well (in the Epicurean sense) than that available to animals. Hobbes, *De Homine*, 38-41.

[241] Hobbes, *Leviathan*, vi, 35; x, 1; xi, 25; xii, 1-5. Unlike beasts, man is curious, such that once his basic needs are met, he has a "lust of the mind" that takes delight in the "indefatigable generation of knowledge." Not any knowledge, but particularly knowledge of the causes of effects he observes. Upon consideration of causes, he is further driven to understand the causes of the cause, reaching back toward the beginning of all things and speculating into the ultimate future of life and death. In this regard, Hobbes views curiosity as the foundation of religion as it addresses first

own good and evil fortune."[242] Speech makes that knowledge manifest by first marking our cogitations on cause and effect more clearly for ourselves, but also for communicating that knowledge, along with our desires, to others.[243] Without the capacity for cause and effect, and language, political community is hardly possible. When political community is absent, so too is peace, another critical prerequisite for harnessing reason to bettering man's condition.

The capacity for reason, however, is not an escape from civil strife because these important matters are empty of substantive content. Instead, individual preference masquerades as the "authoritative opinion" guiding society.[244] But, comprehending causes and effects strictly through the senses was an enterprise fraught with peril. The ability of individuals to comprehend the external world through the sense organs is incomplete. The thoughts of man "are every one a *representation* or *appearance* of some quality, or other accident or a body without us. . . ."[245] These external objects impinge on the sense faculties to produce "shadowy reflections." Hobbes repudiated the Scholastics who still maintained man comprehends the external world via its intelligible emanation from its essence, the "visible show."[246] Therefore, distinguishing between what is "almost-real" and the "not-real," like the blending of dreaming and waking, is difficult.[247]

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and last causes. Moreover, man's inherent curiosity is also the seat of his power, by which Hobbes understands as the "means to obtain some future good."

[242] Hobbes, *Leviathan*, xii, 2.

[243] Ibid., ii, 6.

[244] Rahe, *Republics Ancient and Modern*, 372.

[245] Hobbes, *Leviathan*, i, 1.

[246] Ibid., i, 5.

[247] Ibid., ii, 3.

The result is a cacophonous mixture of actual perceived images, dreamt images, and imagined ones combining to appear as reality for each individual. It is this inability to articulate the perceived from the imagined which, combined with a need to attribute the good and bad things appearing in life to intelligible agents (i.e. a providential universe), gave rise to religion, superstition, and a bevy of other beliefs about the universe, leaving political and moral chaos in its wake. Civil obedience requires quieting the noise resulting from the confusion of the almost-real and the clearly not-real.[248]

Factual knowledge apprehended through the senses had severe limitations and was incapable of sustaining order. Discourse by itself cannot generate absolute knowledge, "No discourse whatsoever can end in absolute knowledge of fact, past or to come. For as for the knowledge of fact, it is originally sense; and thereafter, memory."[249] The knowledge of fact is not a comprehension of the thing in question, but only the apprehension of motion through sense with all its limitations. It is a knowledge grounded in dreams and illusion and as such is no proper foundation for civil peace and order.

3.4   ARTIFICE AND POLITICAL ORDER

For Hobbes, the transformations of fictions into reality was precisely the sort of advance needed in order to construct a usable civil philosophy and he did so through leveraging human's capacity for artifice. Fulfilling the natural law, which propelled men towards peace, was possible only through the construction of the artificial commonwealth by covenanting with one's fellows. The terms of the social contract, laying aside one's

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[248] "If this superstitious fear of spirits was taken away, and with it, prognostics from dreams, false prophecies, and many other things depending thereon, by which, crafty and ambitious persons abuse the simple people, men would be much more fitted than they are for civil obedience." Hobbes, *Leviathan*, ii, 8.

[249] Ibid., vii, 3.

natural right to self-preservation, is upheld by the sovereign, the mortal god, that neutrally enforced the social contract by provisioning punishment to transgressors. The artificial construction of the commonwealth grants its citizens a maker's knowledge enabling consensus based on a "true" causal relationship that is simply not possible if political authority were based on an ultimately inscrutable divine authority.

As discussed above, for Hobbes the science par excellence was not physics but geometry precisely. Geometry is favored because man is the maker of the numbers and figures under observation, putting men and women in the unique position of having a "maker's" or "ideal" knowledge of the subject matter:

> 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 . . .. And therefore in geometry . . . men begin at settling the signification of their words.[250]

Civil philosophy in this regard is similar to geometry – both are artifacts of human convention and thus both are knowable in a surer manner than those things that are not. The imperative of artifice, the "work of men's hands," replaces the imperative of nature or god. Men and women, in associating the pleasant with the good, set the parameters, not any immaterial substances or divine commands, for political order.[251] Hobbes erected a materialist theory of knowledge that highlighted the causes and effects of political order and disorder in the desires.

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[250] Hobbes, *Leviathan*, iv, 12. See also xlvi, 11, where Hobbes refers to geometry as the "mother of all sciences." Noel Malcolm, "The Science in Hobbes's Politics," *Perspectives on Thomas Hobbes*, ed. G.A. J. Rogers and Alan Ryan (Oxford: Clarendon Press, 1988), 67-72.

[251] Hobbes maintained that while God granted man the capacity for language, it was man, not God, who did the actual naming in the world. Hobbes, *De Homine*, 38. Also, "Finally, politics and ethics (that is, the sciences of just and unjust, of equity and inequity) can be demonstrated a priori, because we ourselves make the principles – that is, the causes of justice (namely laws and covenants) – whereby it is known what justice and equity, and their opposites injustice and inequity, are." Ibid., 42-43.

The role of human artifice in establishing the mortal god, the Leviathan, that brings about political order is apparent again in the biblical allegory of Job. It is from this allegory that Hobbes takes the title for his most important philosophical work and his reasoning for the imperative of artifice.[252] Previously we saw that the only explanation for Job's suffering is God's inscrutability. But, in his speech to Job, God also offers His power as an explanation for Job's suffering. God thunderously proclaims His majesty and might, admonishing Job to compare the wonders of His creation with the smallness of Job's own humanity.[253] God urges Job that if he believes himself privy to the power that is God's alone, Job should "look at every proud man and humble him" and "crush the wicked where they stand." He can bring the mightiest creature on earth to heel, the Leviathan, king of the proud. Job cannot, God says, do the same.[254]

In the introduction to his book, Hobbes likens the sovereign of the political commonwealth to the biblical Leviathan.[255] In the biblical tale, God admonishes his people to submit unconditionally to his will, in this rare instance, made explicitly known to His people. For Hobbes, God's voice, if it exists at all, is truly inscrutable, providing no clear answers on the appropriate way for men and women to live together justly in a political

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[252] In fact, Hobbes derives the title for another work, *Behemoth*, from this same speech of God's in the *Book of Job*. See *Job*, 40:15.

[253] *Job*, 38:19-21.

[254] *Job*, 41:1-2, 34. "He looks down on all that are haughty; he is king over all that are proud." There is no agreement on what sort of creature is depicted as the Leviathan in the *Book of Job*. In Hebrew, the word today means "whale." However, the term is typically synonymous with something simply immense with overtones of monstrousness. See, for instance, Herman Melville's *Moby Dick* in which Captain Ahab's nemesis, the great white whale, is likened to the biblical Leviathan in the *Extracts* section. Herman Melville, *Moby Dick* (Boston: L.C. Page & Company, Publishers, 1892), 537-545. Indeed, in the same section of he quotes Hobbes's' *Leviathan,* Ibid., 539.

[255] "Art goes yet further, imitating that rational and most excellent work of nature, man. For by art is created that great Leviathan called a Commonwealth or State (in Latin Civitas), which is but an artificial man, though of greater strength and stature than the natural, for whose protection and defence it was intended . . ." His description of man as an "excellent work" here is a bit surprising insomuch as his opinions on human nature elsewhere are markedly, perhaps infamously, uncharitable. Hobbes, *Leviathan*, 3.

community. It is in this silence that man the maker or artificer, much as God describes himself in the above speech, emerges. The Leviathan, the sovereign, unlike the biblical creature, is man's creation, not God's, but much like the biblical Leviathan it counts among man's most potent creations. In the biblical tale, it is God that subdues the Leviathan, taming the great creature to a leash.[256] Since man has no immanent God to control the Leviathan as Job does, the creature is instead subdued in the figure of the sovereign. The sovereign is artificial, a fiction, but it is one that men and women, through covenanting in the social contract, have created. The mortal god is an actor, but those he represents "owneth his words and actions."[257] The sovereign holds the commonwealth, and with it the selfish desires of the proud, in check. The knowledge, and thus the power, to subdue the biblical Leviathan rests with God as its creator. Hobbes argues that men have are capable of having the same intimate knowledge, and hence a similar power, in the commonwealth given the proper guidance.[258]

Hobbes is frequently associated with pessimism, offering dismal assessments of man as inherently selfish, relegated to a pitiable, violent disorder by nature. But, his insistence on the ability of human artifice to surmount these shortcomings is nevertheless relentlessly optimistic about human progress and the power in human artifice to identify and overcome the causes of suffering and disorder. It is within the realm of possibility to mitigate human suffering, to replace an unforgiving, indifferent nature with artificial political institutions that ensure predictability and control. Uncertainty in the state of nature is driven by the

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[256] *Job*, 41:5.

[257] Hobbes, *Leviathan*, xvi, 3 and 4.

[258] The proper guidance, of course, is held in the pages of the *Leviathan*.

natural right of self-preservation, compounded by the relentless desires and variable opinions of the vainglorious and proud, the wolves among men responsible for unleashing violence, cruelty, and unpredictability.

The creation of the mortal god, by contrast, replaces this profound uncertainty with certainty. As the embodiment of political authority, the Leviathan metes out punishment to transgressors of laws designed to ensure mutual security, exception routines are enacted to replace the now abnormal condition of insecurity and unpredictability. The unpredictability of violence and suffering in the state of nature is therefore replaced by the predictable fury of the sovereign. The civil laws enacted by the fiat of the sovereign set the parameters for transgression and punishment.[259] Fear is not absent, but its source is knowable and calculable, making the appropriate actions to avoid suffering clear, a repudiation of the divine inscrutability in the *Book of Job*.[260] Sovereign violence is driven by the need for implementing justice and ensuring obedience, not for revenge or the pursuit of self-interest.[261] This predictability and order is the necessary precursor to human flourishing, for the advancement of commerce, useful technology, and cultural arts that are the hallmarks of civilization. The same impulse and confidence, the imposition and maintenance of order through political institutions, also manifests in current policies

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[259] The sovereign retains the "whole of the power of prescribing the rules whereby every may know what goods he may enjoy, and what actions he may do, without being molested by any of his fellow-subjects." Keally McBride, "State of Insecurity: The Trial of Job and Secular Political Order," *Perspectives on Politics* 6, no. 1(2008): 11-20.

[260] In this manner, Hobbes describes men and women of the artificial commonwealth as the source and cause of their own punishment or its "authors," not the sovereign. Hobbes, *Leviathan*, xxviii, 3.

[261] Ibid., chapter xxxviii.

regarding disasters that assign responsibility for maintaining stability and order amidst other sources of disorder – disasters.[262]

3.5   CONCLUSION

At the same time that ideas regarding the sovereign responsibility were shifting, the horizons of responsibility expanded with technological advancements that enabled greater prediction and control over misfortune arising from unruly nature. The demands of risk analysis, as the field of prediction and control was later termed, necessitated the resources and support of the state, much like Hobbes had observed in the *Leviathan*. The fruits of civilization, which entail an increasingly commodious and comfortable life for ordinary persons, only emerge under a robust and stable political regime.

Technological innovations regarding the control and mitigation of misfortune or disaster first emerged in early modern Europe. It represented the shift, noticeable first in Machiavelli and then later in Hobbes, from philosophy as the individual pursuit of wisdom, available only to a select few, to the pursuit of utility that benefitted man universally. Hobbes identifies the defining attribute of man as the ability to discern cause and effect. Understanding causal relationships in turn gave one control over future effects or outcomes, the capacity Hobbes describes as power. Knowledge then, is power, and his philosophy, and others that came after him, is concerned with extending man's power over his external environment.

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[262] McBride articulates how human anxiety regarding future suffering was channeled through political institutions by examining Hobbes's theories on political stability and order. Moreover, she explains that the anxieties, and Hobbesian remedies, currently manifest in the "desire to control our environment and mitigate the effects of misfortune" through political institutions of the DHS and FEMA. Moreover, there is "general consternation" when political institutions fail in these tasks. McBride, "State of Insecurity."

Concerted human effort, much like the virtue of Machiavelli's new prince, could determine outcomes previously ascribed to fortune, chance, or divine will. The unknowability or uncertainty of misfortune is replaced by philosophical means to identify the known-unknown and control for them, a critical development in the production of risk. The process is described as the internalization of risk, meaning it is subject to human will, rather than to external forces, whether god, nature, or capricious fortune.[263] As risk is internalized, it becomes governable, particularly through the mechanisms of the state.

Hobbesian politics is a notably diminished affair. Serving the needs of the body, self-preservation and the promise of commodious living became the primary political concern. Hobbes' emphasis on the body, on material, is first and foremost a result of his reduction of the universe, and man, to matter and motion. This motion inherent in man is directed by appetite and aversion – the capacity for desire – motion towards and away from a thing. The justice required for human congress in such a universe resides only in the extent to which a thing serves desire. Thus, Hobbesian politics is directed towards the security and delectation of our physical selves. It is a politics enacted as if there were no eternity and within a material world where our vision is firmly directed towards the earthly kingdom. The desire for self-preservation, but also the desire for a commodious life, provided a universal point of consensus where right reason had failed. It became the linchpin of the contractual, artificial commonwealth. In doing so, ensuring self-preservation, and comfortable living, became the primary duty of politics.

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[263] Jakob Arnoldi, *Risk*, (Cambridge: Polity Press, 2009), 27-28.

In the last chapter, we saw that Machiavelli himself was a founder of new modes and orders, reconfiguring the conventional conception of virtue with one that emphasized the fulfillment of selfish desires while overcoming the obstacles presented by fortune, chance, and divine will. Machiavelli's philosophy represents the opening salvo in modernity that confronted common understandings of legitimate authority, politics, and the proper aim of knowledge. One could say, then, that Hobbes is an inheritor of Machiavelli's new modes and orders but also one of Machiavelli's most astute captains. Where Machiavelli argues that the radical inequality between the virtuous prince and his subjects is the source of his legitimate authority, Hobbes argues that the source is founded instead on the radical equality of men. Where Machiavelli sought to lay the world at the feet of the glory-seeking prince, Hobbes instead marshalled the great Leviathan to crush the vainglory of the proud for the security of the many. Here, knowledge and power are inseparable from legitimate political authority and that authority is designed to ensure everyday life is characterized by certainty, predictability, and order. Disorder might be the natural inheritance of man but human artifice, through the establishment of political institutions, makes such disorder and the resultant suffering an abnormality controlled by the state.

Yet, Hobbes' radical optimism about man's capacity for discerning cause and effect and the potency of human artifice is ironically a sort of vainglory akin to that described in the chapters of the *Leviathan*. The same prideful assurance that humanity can impose order on an indifferent nature to serve our material needs has become a tool for profound existential disorder in the modern world. Certainly, in the case of Hurricane Katrina, the assurances of safety offered by the Hurricane Protection System proved woefully inadequate but also likely encouraged further development in arguably the most vulnerable

geography in the country. The very technologies, whether the petroleum-fueled global economy, the complex systems comprising our infrastructure, and the tools for DNA manipulation are producing new sorts of disorder that are escaping human control.[264] Hobbes's belief that humanity's capacity for artifice grants us a maker's knowledge of our artifacts, and thus control and predictability, has proven grievously prideful. Instead, our technologies are fabricating new sorts of vulnerabilities, discussed in the next chapter, that are increasing the fragility of modern society. More than ever, humanity itself is the source of current and future suffering.

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[264] The CRISPR gene-editing technology provides a means to alter DNA in living organisms. It is inexpensive, the technology is widely distributed, and it does not require a high level of expertise to execute. In 2016, James Clapper, the former Director of National Intelligence, described it as a threat to U.S. national security. While the gene editing technology has tremendous potential for benevolent uses, it is also a dual-use technology with the potential for weaponization. Antonio Regalado, "Top U.S. Intelligence Official Calls Gene Editing a WMD Threat," February 9, 2016, *MIT Technology Review*, https://www.technologyreview.com/s/600774/top-us-intelligence-official-calls-gene-editing-a-wmd-threat/.

CHAPTER 4.

DISASTERS AS THE WORK OF MAN: OBLIGATION AND BLAME IN THE MODERN STATE

> "Cease, then, nor order imperfection name:
> Our proper bliss depends on what we blame."
>
> Alexander Pope, *Essays on Man*, 1733.

4.   DISASTERS AS THE WORK OF MAN: OBLIGATION AND BLAME IN THE MODERN STATE

4.1   INTRODUCTION

This chapter considers the development of new ways of thinking about disasters in the modern era, leading up to contemporary discourse on disasters and disaster management among scholars and practitioners. The vignette in the Introduction on the experience of Hurricane Katrina questions why the disaster was perceived as a political crisis. Hurricanes, driven by atmospheric or geologic conditions, unleash tremendously powerful forces on comparatively fragile human communities. The high winds and flood waters destroyed housing and shelters; interrupted communications, health care, and transportation infrastructures; contaminated food and water supplies; and outright killed others.

Yet, for all the blame that could have been afforded an indifferent nature, a vengeful god, or a cruel fate, the public largely directed its vitriol towards local, state, and federal governments and agencies. Many felt these actors were guilty of gross incompetence at best or willful neglect at worst. For most Americans, or indeed many fortunate citizens of the developed world, interpreting the damage that occurred during Hurricane Katrina as a political failure is unproblematic, even *natural*.

However, this interpretation of disaster described above is natural in appearance only. Disasters, catastrophes, and other events leading to widespread misfortune have recurred

with depressing regularity through much of recorded history. Famines, floods, earthquakes, tsunamis, plagues, fires, and hurricanes feature in the historical development of nearly all societies and civilizations.

The experience of individual or communal misfortune is a perennial problem that has been addressed through different philosophical interpretations and remedies. In the medieval world, the explanatory model most often attributed causality to God. Earthquakes were considered divine punishment or omens of an impending apocalypse. As a result, the remedies for misfortune rested with the priestly class. The remedies sought to restore man's relationship with God. When more practical, worldly remedies were considered, they were plied by private or civil organizations, not through political institutions.

The transition to modern explanatory models, remedies, and obligation occurred during the Lisbon earthquake of 1755. The emergency response and subsequent reconstruction efforts were all undertaken by political institutions. Moreover, the reconstruction efforts sough to prevent similar severity of damage from future earthquakes and enhance the well-being of its citizens, leveraging technological developments from across Europe. Although this explanatory model and its accompanying remedies to the disaster prevailed it was by no means uncontested. The authorities overseeing the disaster response engaged in a fierce interpretive battle with the Jesuits over the true sources of causality, nature or God, pitting men of science against men of God.

Federal, state, and local governments spearheaded the emergency response and reconstruction efforts during Hurricane Katrina. The anemic efforts, botched by incompetence, bureaucratic slowdowns, and corruption, contributed to the most expensive

and second deadliest natural disaster in U.S. history. Recrimination and blame for the disaster was directed towards all levels of government. The discourse following Katrina signaled an ongoing shift in how people attribute causality in disasters. Many assigned culpability to human agency, whether in the failed, poorly constructed levees intended to protect the city from storm surges or the historical political, economic, and social processes that had contributed to the vulnerability of the most heavily hit areas of the city.

Within disaster research, human culpability is studied as vulnerability analysis which explains disasters as the intersection of natural hazards and communities with more or less vulnerability, shaping the resulting disordered effects of disaster. However, the impact of human activity on the natural world has entangled the two, making it difficult to distinguish the causal agent. A recent designation, natech disasters, captures this complexity that blends the man-made components of disaster, or technology, with its more natural components. The result is an environment in which humans appear to bear greater responsibility for misfortune than ever before, placing greater burdens of blame and obligation on the governments charged with securing order in an increasingly disordered world.

4.2 DISASTER AS PUBLIC SAFETY

Slowing taking shape in the early modern era, leading up to the welfare states in the Western world today, citizens have come to expect government to put public safety at the forefront of its policy making and resource allocation decisions. Certainly, the technological advances over the preceding centuries have significantly impacted the extent to which the state is able to intervene in the everyday lives of its citizens to effect public

safety.[265] At its most basic, safety is associated with protection from violent death occurring either as a result of disaster, war, or criminal violence. Hobbes's social contract theory hinges on the physical safety of the sovereign's subjects; indeed, he was particularly frightened of civil war but also war waged by enemies residing outside one's territorial borders. Early modern governments, such as the Portuguese government of the late eighteenth-century, extended public safety to include protection from natural disasters. By the twentieth-century, the full-blown "disaster welfare state" emerged that provides government relief to citizens for a wide variety of calamities.[266]

4.3   PRE-MODERN DISASTERS

Before embarking on the discussion of the philosophical and political implications of disasters in the contemporary world, a digression to experience of disaster in the past provides a worthwhile comparison. If today disasters are matters of politics and public policy, how is the approach different than interpretations in the past where records of disasters are available? In the previous chapters, I discussed how philosophy shifted from an internal, cognitive remedy for misfortune by insulating oneself against the variability of external affairs to a remedy seeking to manipulate the external world to better meet the material needs of humanity. Machiavelli wrested human agency from the grasp of the gods, nature, and capricious fortune, arguing for a new political science that pitted one's own

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[265] Roberts describes the uptick in citizen expectations in regards to civil defense programs established by the federal government during the Cold War. Proponents of the program claimed to be able to protect citizens against a multitude of possible calamities, ranging from nuclear war to hurricanes. However, its capacity rarely kept pace with its claims, leaving a serious mismatch between citizen expectations and the program's actual performance. As a result, the program ran a continual risk of underperforming according to citizen expectations, generating skepticism about the government's capabilities, leading to a "loss of civic capacity and chronic distrust of public projects." Roberts, *Disasters and the American State*, 69.

[266] Michele Landis Dauber, *The Sympathetic State: Disaster Relief and the Origins of the American Relief State* (Chicago: The University of Chicago Press, 2013), 11-15.

arms against the abstract forces responsible for the human experience of misfortune. Later, Hobbes expanded on Machiavelli's audaciousness, arguing that man himself was the ultimate artificer, capable of pulling himself from the bellicose state of nature which condemned man to a condition of terror. Capitalizing on the natural right of self-preservation, man can construct an artificial commonwealth that propels humanity from chaos and disorder to orderly civilization where the fruits of human efforts and ingenuity are directed towards their delectation, especially safety. In doing so, Hobbes made public and individual safety from physical misfortune a primary obligation of the modern state. Restoring order where it is disturbed is a recurring test of the state's legitimacy as the ultimate political authority within the state. By contrast, in search for the explanations behind debilitating bouts of communal misfortune, societies in the medieval and early modern era looked towards moral causation. As a result, the remedies for misfortune were largely found in managing or repairing society's relationship with the divine, not public policy.

Life in the pre- and early-modern era was replete with misfortune and risk. Sometimes, as in the case of earthquakes, volcanic eruptions, or infectious diseases, the risk was felt across communities and indeed civilizations. In 1258, the European continent was impacted by the largest volcanic eruption in the past 7,000 years. Additionally, besides the successive waves of the Black Death that led to the death of millions, low temperatures and heavy rainfall caused by warm north Atlantic Ocean temperatures caused the most devastating famine in recorded European history from 1315-1321.[267] While there was no

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[267] Christopher M. Gerrard and David N. Petley, "A Risk Society? Environmental Hazards, Risk and Resilience in the Later Middle Ages in Europe," *Natural Hazards* 69(2013): 1051-1079.

shortage of misfortune in the period, there has been limited investigation into the impact of these events on the development of western civilization.

Sparse records of past disaster events have curtailed expansive study of them. Most records that do exist convey accounts of earthquakes, both descriptions of the events themselves and their immediate impact on the physical and the non-physical world.[268] But, the extant records do include speculations about the meaning, and cause, of disasters. While there is some variation in the interpretations of the disasters, most accounts in this period attribute the events to moral causation stemming from the failure to properly abide by divine law.[269] The archetypal event associated with this interpretation, of course, is the *Diluvium*, or Great Deluge from the *Book of Genesis*, that washed away the sins and transgressions of a flawed world, providing humanity an opportunity for renewal.[270] Similar events were frequently read through biblical and devotional texts, particularly earthquakes, which were thought to be harbingers of the apocalypse.[271]

Disasters attributed to divine punishment were a common theme, but it did not exhaust possible interpretations. Individuals attributed numerous, although closely related, meanings in the aftermath of a devastating earthquake in Friuli, Italy that occurred in January 1348. Some bankers viewed the earthquake as a sign to forgive interest on debtors for a period of eight days. The autonomous ringing of bells noted in several unconnected

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[268] Christian Rohr, "Man and Natural Disaster in the Late Middle Ages: The Earthquake in Carinthia and Northern Italy on 25 January 1348 and its Perception," *Environment and History* 9, no. 2(2003): 127-149.

[269] Gerrard and Petley, "A Risk Society?," 1051-1079; Rohr, "Man and Natural Disaster in the Late Middle Ages," 127-149; Monica Juneja and Franz Mauelshagen, "Disasters and Pre-industrial Societies: Historiographic Trends and Comparative Perspectives," *The Medieval History Journal* 10, no. 1 & 2(2007): 1-31.

[270] Christian Rohr, "Writing a Catastrophe: Describing and Constructing Disaster Perception in Narrative Sources from the Late Middle Ages," *Historical Social Research* 32, no. 3(2007): 88-102.

[271] Gerrard and Petley, "A Risk Society?," 1051-1079.

eyewitness accounts was either perceived as warding off the apocalypse or heralding its imminence depending on the source. One merchant believed the earthquake to be a sign warning of pestilence, misfortune, and the end of days.[272] Others, including the scholar Konrad von Megenberg, believed the earthquake to be evidence of the wrath of God at the incompetence and moral decline of political sovereigns.[273]

The discourse on moral causation of disasters suggested a very different set of remedies than the technological ones levied through public policy today. Most remedies sought to manage the perceived surfeit of sin through religious cults and prayers, whether through religious processions, prayers, or repentance.[274] Other remedies included efforts to restore social norms, including bans on over-indulgent celebration and modesty regulations that banned or fined indecent clothing and ostentatious jewelry.[275] The veneration of saints, patrons of protection against sudden demise, was also popular, particularly the cults of Saint Barbara and Saint Christopher. Holy relics were also deployed as protections against

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[272] Ironically, the merchant was correct in one regard; several weeks after the earthquake, the region experienced a wave of plague that killed him. Rohr, "Man and Natural Disaster in the Late Middle Ages," 127-149.

[273] As Rohr notes, despite the prevalence of the moral causation discourse surrounding disasters, some people, particularly the educated clergy, looked for more natural explanations. Konrad von Megenberg (1309 – 1374) was a prolific fourteenth-century German Catholic and scholar. His most famous work is the author of *Das Buch der Natur* (*The Book of Nature*), first published in 1349. In it, he examines the natural causes of earthquakes through the typical Aristotelian lens of his day: "You should also know that the earthquakes cause many miraculous things: a vapour coming out from the earth by the earthquake is responsible for transforming human beings and other animals into stone and in particular into pillars of salt . . .. This fact is caused by fires inside the earth." As quoted in Ibid. See also Timothy Prior, Florian Roth, and Michel Herzog, "Transformations in European Natural Hazard Management: There and Back Again," in *European Civil Security Governance: Diversity and Cooperation in Crisis and Disaster Management*, eds. Raphael Bossong and Hendrik Hegemann (New York: Palgrave Macmillan, 2015), 142-143; Augustín Udías, "Earthquakes as God's Punishment in 17th-and 18th-Century Spain," *Geological Society, London, Special Publications* 310, no. 1 (2009): 41-48.

[274] Rohr, "Man and Natural Disaster in the Late Middle Ages," 127-149.

[275] Gerrard and Petley, "A Risk Society?," 1051-1079.

droughts or epidemics.[276] The measures were intended to prevent future events as well as mitigate the effects of past ones.

When communities did engage in what appears to be more modern hazard mitigation practices, the responsibility for enacting them mostly fell to private individuals or organizations.[277] Common strategies included sharing of costs through cooperative and collective endeavors. Wealthier households regularly practiced gift-giving and acts of charity to help those experiencing misfortune. Religious institutions and fraternal guilds also provided help in the form of loans and stipends to its members in need. Common structural responses included raising floors in areas of flooding or sea defenses and embankments to protect soil, livestock, and inhabitants from damaging seawater. [278]

In the early modern period, a series of related developments slowly changed how governments and societies responded to natural disasters. The result was a shift in responsibility for security against misfortune from the private realm to the public one. Nascent ideas of sovereignty prescribed by philosophers such as Hobbes predicated sovereign authority not on divine or natural law, but the social contract, which hinged on the sovereign upholding its obligations towards its citizens, security first and foremost.[279]

[276] Gerrard and Petley, "A Risk Society?,"1051-1079.

[277] Prior, Roth, and Herzog, "Transformations in European Natural Hazard Management,"144; Derek Keene, "Crisis Management in London's Food Supply, 1250-1550," in *Commercial Activity, Markets and Entrepreneurs in the Middle Ages*, eds. Ben Dodds and Christian D. Liddy (Woodbridge: The Boydell Press, 2011), 59-60.

[278] Gary Richardson, "The Prudent Village: Risk Pooling Institutions in Medieval English Agriculture," *The Journal of Economic History* 65, no. 2(2005): 386-413; Gary Richardson and Michael McBride, "Religion, Longevity, and Cooperation: The Case of the Craft Guild," *Journal of Economic Behavior & Organization* 71, no. 2 (2009): 172-186; Gerrard and Petley, "A Risk Society?,"1051-1079.

[279] Pelling and Dill, "Disaster Politics," 1-17; Vashuda Chhotray, "Disaster Relief and the Indian State: Lessons for Just Citizenship," *Geoforum* 54(2014): 217-225.

Shifts in theories of governance transferred the responsibility of property and personal safety away from the individual and civic organizations towards political rulers.[280]

4.4   THE LISBON EARTHQUAKE OF 1755

The ongoing trends discussed above, the growing optimism regarding predictability and control of nature; the increasing role of the state in ensuring public safety and well-being through public policy; and shifting interpretations of disaster towards natural and human or political causation, find apt expression in the first modern disaster, the devastating earthquake in Lisbon, Portugal on November 1, 1755. The earthquake is regarded as specifically modern for several reasons. The first involves the emergency response initiated by the state through the Portuguese King José I, overseen primarily by his Secretary of Foreign Affairs, Sebastiao José de Carvalho de Melo, later known as Marquis de Pombal. The latter oversaw the initial disaster relief and recovery as well as controversial reconstruction efforts intended to mitigate the effects of future earthquakes. Secondly, the earthquake sparked a debate regarding the causes of the disaster that was a microcosm of wider debates regarding the relationship between man, nature, and god in the intellectual climate of the time. Naturalistic explanations for the event competed against the insistence of the Church on a divine explanation that saw the event as a punishment for the rampant licentiousness and heresy in Lisbon. Moreover, debates among leading intellectuals following the disaster identified the work of human agency in explaining disaster. Spurred by the city's reconstruction efforts, government officials and other commentators examined the significant role human agency played in the disaster.

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[280] Prior, Roth, and Herzog, "Transformations in European Natural Hazard Management:," 144; Luke Glanville, *Sovereignty and the Responsibility to Protect: A New History* (Chicago: University of Chicago Press, 2014), 31-33.

In these regards, the close examination of the Lisbon earthquake is the genesis of the concept of vulnerability, the predominant social science approach to disasters that rejects naturalistic explanations in favor of causation stemming from human technology as well as public and private policies that direct community development. Vulnerability analysis, discussed below, has rendered the modifier "natural" nearly meaningless when speaking of natural disasters since it claims that the causal chain of the events leads back not to nature but to complex economic, political, and social configurations which places some individuals, groups, or societies more in harm's way than others.[281]

The Lisbon earthquake occurred on November 1, 1755. While the earthquake tremors unleashed the first wave of damage, a subsequent tsunami and hot-burning fire that lasted for five- to six-days topped the misery of Lisbon.[282] At the time, it was the fifth-largest city on the European continent, having an estimated population of 200,000 while its port was the third busiest in the world.[283] Although estimates are imprecise, in part because so many of the parish records were destroyed, around 40,000 are thought to have been

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[281] Juneja and Mauelshagen, "Disasters and Pre-Industrial Societies," 1-31.

[282] Tremors lasted an astonishing 11-minutes, compared with the 35-second tremors that nearly destroyed Haiti in 2010. Mark Molesky, *This Gulf of Fire: The Destruction of Lisbon, or the Apocalypse in the Age of Science and Reason* (New York: Alford A. Knopf, 2015), 80 and Arch C. Johnston, "Seismic Moment Assessment of Earthquakes in Stable Continental Regions—III. New Madrid 1811–1812, Charleston 1886 and Lisbon 1755," *Geophysical Journal International* 126, no. 2 (1996): 314-344.

[283] Molesky, *This Gulf of Fire,* 65. The burgeoning modernization project was stifled by the stranglehold of the Church on political and economic power in the country, especially as concerns the Jesuits and the fearsome Inquisition. Portugal sustained a veritable army of priests, around 200,000, to support a population of three million. One scholar observes the only country more riddled with priests than eighteenth-century Portugal was Tibet. Charles R. Boxer, *The Portuguese Seaborne Empire, 1415-1825* (Oxford: Oxford University Press, 1963), 189. Experts believe that the Lisbon earthquake was the largest in recorded history to occur in the Atlantic Ocean. It measured from 8.5 – 8.7 on the M Scale. The M scale, or the moment magnitude scale, is commonly used by scientists to measure earthquakes. The M scale measures the total magnitude of energy released during the tremors while the Richter scale (ML) measures the size of the seismic waves, or local magnitude. See U.S. Geological Survey, Earthquake Hazards Program, https://earthquake.usgs.gov/learn/glossary/?term=magnitude, for a description of different earthquake measurement scales. See also Molesky, *This Gulf of Fire*, 6

killed.[284] The property damage was also tremendous; the inner city was completely destroyed. More than half of the parish churches fell, including the Church of the Inquisition and the Church of the Patriarch, and around eighty-five percent of the city's homes were rendered unlivable and the port facilities destroyed.[285]

The Lisbon earthquake of 1755 is referred to as the first modern disaster because it connected the various philosophical, political, and technological developments discussed throughout this dissertation.[286] The state shouldered responsibility for the security of the city following the disaster.[287] Moreover, the sophisticated emergency response mustered by the monarchy resembles contemporary practices. Pombal spearheaded a far-ranging emergency response to aid residents in Lisbon. He also oversaw the reconstruction of the city, taking advantage of the latest advancements in urban planning to develop a modern

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[284] Molesky, *This Gulf of Fire*, 248. Molesky provides a breakdown: 25,000 from the earthquake, 7,000 from the fire, 3,000 from the tsunami, and an additional 5,000 from injuries and disease. Other estimates of the total casualty count are as high as 1000,000. David K. Chester, "The 1755 Lisbon Earthquake," *Progress in Physical Geography* 25, no. 3 (2001): 363-383. The earthquake also killed across social categories, including many foreign victims that increased international attention to the disaster. T. D. Kendrick, *The Lisbon Earthquake* (London: Methuen, 1956), 26.

[285] The earthquake is thought to have gutted the Portuguese Gross Domestic Product (GDP) by as much as forty-eight percent. However, the disaster did afford Portugal an opportunity to reduce its economic dependency on Great Britain. Alvaro S. Pereira, "The Opportunity of a Disaster: The Economic Impact of the 1755 Lisbon earthquake," *The Journal of Economic History* 69, no. 02 (2009): 466-499.

[286] As Russell Dynes notes, "the earthquake was the first disaster in which the state accepted the responsibility for mobilizing the emergency response and for developing and implementing a collective effort for reconstruction." Russell Dynes, "The Dialogue Between Voltaire and Rousseau on the Lisbon Earthquake: The Emergence of a Social Science View," University of Delaware Disaster Research Center, Preliminary Paper #293, http://udspace.udel.edu/bitstream/handle/19716/435/PP+293.pdf?sequence=1. See also A. Beta'mio de Almeida, "The 1755 Lisbon Earthquake and the Genesis of the Risk Management Concept," in *The 1755 Lisbon Earthquake: Revisited*, eds. Luiz A. Mendes-Victor, et al. (New York: Springer, 2009), 147-165. Similarly, Judith Shklar counts the Lisbon earthquake as one among several "birthdays" of modernity. The significance of the event stems not from its sheer destructive power but from the intellectual response it prompted among the western world. It marked the day, Shklar argues, that humanity took responsibility for orchestrating our own suffering rather than laying blame at the feet of God or nature. But, our agency in creating suffering also reveals a mirroring capacity to interdict it. Judith N. Shklar, *The Faces of Injustice* (New Haven and London: Yale University Press, 1990), 51-52.

[287] Pombal's aggressive usurpation of power against other important institutions in Portugal was possible in part because the earthquake, tsunami, and fire all but decimated the ability of the Church, the nobility, the military, or the merchant classes to adequately respond. Molesky, *This Gulf of Fire*, 212.

city that protected it from further geological mischief while improving the well-being of its citizens.

Pombal's emergency response to the disaster began almost immediately after the earthquake and tsunami. Among his first acts was appointing managers with discretionary powers to carry out emergency response. The most immediate concern was the removal of corpses to prevent the spread of disease. Likewise, feeding the population was a top priority; he ordered the seizure and distribution of foodstuffs. Remaining soldiers quickly caught and summarily executed thieves and looters. Strict housing control was introduced to prevent unscrupulous landlords from evicting tenants or raising rents. Migration controls also prevented the exodus of skilled and unskilled labor necessary for the reconstruction of the city. Officials initiated a survey, a new social technology, that identified survivors and assessed the extent of the damage in the city for subsequent reconstruction efforts.[288]

The tightly coordinated reconstruction efforts brought together the shifting expectations of sovereign responsibility and modern technology.[289] Pombal leveraged advances in urban planning, public policy, medicine, engineering, and population surveying. His call for urban development plans to reconstruct the city was answered by engineers and architects from all around Europe.[290] The plan ultimately selected through this process replaced the winding medieval streets with grid networks that traversed rectangular city blocks. The rationalist pattern built on the irregular, hilly terrain of the city

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[288] Kendrick, *The Lisbon Earthquake*, 79-84.

[289] Karl Fuchs, "The Great Earthquakes of Lisbon 1755 and Aceh 2004 That Shook the World. Seismologists' Societal Responsibility," in *The 1755 Lisbon Earthquake: Revisited*, eds. Luiz A. Mendez-Victor et al. (New York: Springer, 2009), 43-64.

[290] Molesky, *This Gulf of Fire*, 306-314. See also John R. Mullin, "The Reconstruction of Lisbon following the Earthquake of 1755: A Study in Despotic Planning," *Planning Perspectives* 7, no. 2(1992): 157-179.

was itself an assertion of human agency over nature.[291] The straight, wide boulevards were intended to help disaster victims escape from buildings into roomy plazas. It also specified building regulations intended to mitigate the impact of future disasters. Among the most innovative design components was the requirement for each building to be constructed around the *gaiola pombaline*, a wooden structure designed to absorb earthquake vibrations. Building facades were constructed to quickly collapse, leaving the interior of the structure, and its inhabitants, safe. City-wide regulations also required all buildings to have a uniform height and aligned façades.[292] The reconstruction efforts also attracted the progressive physician Dr. António Nunes Ribeiro Sanches. He authored a book, the *Treatise on the Preservation of the Health of the Republic*, which identifies the state as the authority responsible for the welfare of its citizens through scientifically based urban planning and public policies. Because his program required the full cooperation of the state and civil

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[291] Miguel Pereira Lopes, "Rebuilding Lisbon in the Aftermath of the 1755 Earthquake: Max Weber Revisited," *Journal of Management History* 20, no. 3(2014): 278-291. The geometric precision of the grid-iron street pattern in urban design was first discussed in modernity by who Descartes imagined that given a blank slate, a modern engineer would lay out a city in such fashion in accordance with reason and orderliness. Medieval urban design, with its characteristic haphazard winding, crooked streets appeared to him as disorderly, having resulted more from "chance than the will of some men using their reason." Descartes, as quoted in James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven and London: Yale University Press, 1998), 55. The grid-iron street pattern, like the ones envisioned by Pombal, not only gave the appearance of regularity, but also rendered the city more legible to centralized state authority, allowing better policing and more efficient tax collection, mail delivery, census taking, and delivery of municipal services. Indeed, some contend that Pombal's reconstruction plans entailed not just a reimagining of the city's physical space, but its political geography as well. He intended to extend the authority of the centralized state while undermining the traditional political role played by the Church and the Crown. The new values of the reimagined city emphasized the importance of the citizen, the merchant, and the bureaucrat. Pombal's urban design did so in part by significantly decreasing the number and size of the parish churches. The reconstructed churches were also prohibited from including assertive elements like bell towers or prominent facades overlooking public spaces to reduce the visual dominance of ecclesiastical buildings on the Lisbon landscape, making them blend effortlessly with commercial and government structures. Pombal's efforts did increase centralized, secular authority in the kingdom, particularly as regards the practice of eminent domain for furthering public utility. Molesky, *Gulf of Fire*, 316-317; Scott, *Seeing Like a State*, 53-58; Mullin, "The Reconstruction of Lisbon Following the Earthquake of 1755,"157-179; Timothy D. Walker, "Enlightened Absolutism and the Lisbon Earthquake: Asserting State Dominance over Religious Sites and the Church in Eighteenth-Century Portugal," *Eighteenth Century Studies* 48, no. 3(2015): 307-328.

[292] Molesky, *This Gulf of Fire,* 315-316; Richard Penn, et al., "The Pombaline Quarter of Lisbon: An Eighteenth Century Example of Prefabrication and Dimensional Coordination," *Construction History* 11(1995): 3-17. The precise regulations and the scale of the reconstruction effort prompted substantial prefabrication of wood and stone building components alongside mass production construction efforts, unusual construction activities until the twentieth-century.

society, he dubbed the approach "political medicine." When Ribeiro's work came to the attention of Pombal, the latter financed its publication and distributed the book to every public and religious official in the kingdom.[293]

4.4.1   <u>Interpretations in the Lisbon Earthquake</u>

The Lisbon earthquake also remains an important event in the shaping of modernity because it is arguably the last significant natural disaster that occurred in the western world in which competing explanatory models of the event came into play.[294] As discussed in the Introduction, interpretations of disasters not only specify causes, but also allocate blame, responsibility, and obligation. The tension between the divine and natural interpretations of the Lisbon earthquake dramatically unfolded in the years following the event. Pombal encouraged debate on the natural causes of the earthquake. In doing so, he engaged in fierce interpretive battle with the Jesuit priest Gabriel Malagrida over the cause of the earthquake and thus also its appropriate remedy. The battle was not merely intellectual; it was profoundly political. While Pombal's explanation made way for political solutions for recovery and reconstruction, Malagrida's divine one demanded a reconstruction of the soul, putting the two men at odds.

Philosophers and religious figures had speculated on the natural causes of earthquakes for millennia. One of the most well-received at the time of the Lisbon earthquake was Robert Hooke, the seventeenth-century scientist who authored the *Lectures and Discourses of Earthquakes and Subterraneous Eruptions* (1705). He speculated that the alterations of

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[293] Molesky, *This Gulf of Fire*, 312-313; Kendrick, *The Lisbon Earthquake*, 95-98. Robeiro's treatise on "political medicine" also included a discussion of the scientific or natural causes of earthquakes.

[294] I am not arguing here that there are not competing interpretations of disasters in the contemporary era, but divine explanations for disasters remain in the cultural fringe.

earth's surfaces resulted in no small part from earthquakes, alongside motions of the water, wind, and the planet itself.[295] But, there was no shortage of explanations that attributed the event to divine machinations in recompense for earthly sins. Earthquakes had long been considered a physical manifestation of human deviance, even a direct communication of God's judgment.[296] Thus, fiery sermons linking the Lisbon earthquake to human sin abounded, but did not remain wholly uncontested even within the religious quarter. A small number of religious figures countered the pious fervor with support for naturalistic explanations.[297] The fiercest proponent of the divine interpretation was Malagrida; in 1756, he authored *On the True Cause of the Earthquake*. In the pamphlet, he makes clear that the earthquake was God's punishment for Lisbon's sinful transgressions.[298] He inveighed against the intellectuals promoting natural explanations for the earthquake:

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[295] Hooke's treatise argues that earthquakes are responsible for significant shifts and convulsions of the earth's terrain, observable from the prodigious number of sea creature fossils in unlikely places such as mountaintops. See Merchant, *Autonomous Nature*, 141; Robert Hooke, "Lectures and Discourses of Earthquakes and Subterraneous Eruptions," in *The Posthumous Works of Robert Hooke*, ed. Richard Waller (London: Sam Smith and Benj. Walford [printers to the Royal Society], 1705), 277-450; Frances Willmoth, "Rumblings in the Air: Understanding Earthquakes in the 1690s," *Endeavour* 31, no. 1 (2007): 24-29.

[296] Huet, *The Culture of Disaster*, 43.

[297] Antonio Pereira, a priest from the Congregation of the Oratory and a Benedictine from Spain, supported natural explanations for the earthquake as a counter to other religious figures that attributed the event to divine wrath. The Benedictine went as far as to publish a manuscript detailing his position, entitled *A New Theory about the Physical Cause of Earthquakes, now Explained by Electric Phenomena, and Specially Adapted to the Shock Felt in Spain on November 1ˢᵗ, 1755*. Huet also correctly observes that this debate regarding the cause of seismic activity was an ongoing one. Huet, *The Cultural of Disaster*, 42. Certainly, the debate was not decisively settled in favor of rationalistic explanations after the earthquake; it continued after the dust in Lisbon settled, but the catastrophe ignited a firestorm of debate among the sharpest minds in Europe on natural versus divine explanations. Indeed, the Lisbon earthquake is attributed as the progenitor of the modern seismological science. See also Kathleen S. Murphy, "Prodigies and Portents: Providentialism in the Eighteenth-Century Chesapeake," *Maryland Historical Magazine* 97, no. 4 (2002): 397-421. Murphy describes the reaction among residents in Annapolis, Maryland, around two-weeks after the Lisbon earthquake. Although ministers from the area emphasized the rationality and "divine deign" of the universe influenced by developments in Newtonian science, reports in newspapers provided a wealth of providential explanations that heralded the tremors as warnings.

[298] As a missionary in Brazil, Malagrida narrowly escaped execution by the Guaraní tribe of the Amazon while he was a missionary in Brazil. Due to this brush with death, alongside other minor miracles attributed to him, Malagrida was something of a celebrity having been deemed a "living saint" on account of his trials. His influence extended to the highest echelons of the monarchy as he attended to the spiritual needs of the queen and her ladies-in-waiting. He proved a formidable opponent of Pombal's reconstruction efforts, enough, at least, for Pombal to arrange Malagrida's execution in 1761. Russell Dynes, *The Lisbon Earthquake in 1755: Contested Meanings in the First Modern Disaster*, Preliminary Paper no. 255, (University of Delaware Disaster Research Center, 1997); Molesky, *This Gulf of Fire*, 3-13.

> Learn, O Lisbon, that the destroyers of our houses, palaces, churches, and convents, the cause of the death of so many people . . . are your abominable sins, and not comets, stars, vapours, and exhalations and similar natural phenomena.[299]

Differing interpretations of disaster point to particular configurations of blame, responsibility, and obligation. Pombal and Malagrida proposed sharply different interpretations of the event that required remedies poles apart from one another. Were Pombal and Malagrida private citizens, the opposing interpretations would have remained oppositions evident in speech only. However, both were powerful men positioned to reimagine the future of a city and kingdom. Pombal's preference for naturalistic explanations dovetailed neatly with his desire to leverage technological advancements and centralized state functions to reconstruct the city according to his interests, a tyrant of Machiavellian mold.[300]

Ascribing the earthquake to natural causes dispersed the blame to abstract forces rather than attributing it to the residents of Lisbon for their sins. Instead, Pombal shifted the responsibility and obligation of reconstruction to the emerging central state rather than to the priestly class while also undermining religious authority in the designs of the city.[301]

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[299] As quoted in Kendrick, *The Lisbon Earthquake*, 137. Malagrida was perhaps the fiercest advocate of the divine interpretation of the earthquake, but by no means singular. Laurent-Etienne Rondet, a Jansenist, also published a manuscript, *Reflections on the Lisbon Disaster*, attributing the earthquake to divine agency. Rondet strays from the typical discourse of divine retribution, however, and characterizes the earthquake as the medium through which people are prepared to endure further biblical calamities. Huet, *The Culture of Disaster*, 44-50.

[300] While Pombal's efforts are the reconstruction of Lisbon are often heralded as the most progressive of its time, the political machinations he used to maintain his position of power and supplant the interests of others are notable for quite different reasons. In Machiavelli's terms, although Fortune appeared to provide Pombal with an unprecedented opportunity in Europe to remake Lisbon according to new modes and orders, it required significant effort, cleverness, and cruelty for Pombal to crush the remaining opposition he faced from the remnants of the nobility and the Church. Using the pretext of an assassination attempt against the King, Pombal orchestrated the arrest, trial, and execution of core members of the aristocracy. The execution, gruesome even for its time, and unusual as it was directed against the members of the nobility, was worthy of Cesare Borgia himself. Molesky, *This Gulf of Fire*, 347-353.

[301] Mullin, "The Reconstruction of Lisbon Following the Earthquake of 1755," 157-179; Timothy D. Walker, "Enlightened Absolutism and the Lisbon Earthquake," 307-328. The new Lisbon that emerged privileged secular over religious authority, commercialism over the crown, in part through the sheer physicality of the city. It had far fewer and

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Pombal, however, had an enemy in Malagrida. If, as Malagrida stridently argued, the earthquake was divine retribution for the sins of the city, a quite different configuration of blame, responsibility, and obligation occurs. In this case, the blame certainly falls on the sinners whose deviance led to the catastrophe. The responsibility and obligation for redressing the conditions that led to earthquake rests with the priestly class. Recovery after the earthquake, and the prevention of another disaster, was a religious, not a political, matter. Indeed, one survivor of the earthquake, an Anglican priest, reports being forcibly baptized into the Catholic faith in a harrowing encounter with a zealous mob in the hour after the earthquake.[302]

Earthquake sermons urging residents to repent of their sins were frequently given. Some of the clergy, including Malagrida, predicted future earthquakes if repentance and reform did not occur. More than an ideological difference, Pombal feared the sermons presented a real danger to his reconstruction efforts.[303] The Jesuits' relegated the actual physical reconstruction efforts to the backburner in favor of spiritual retreats and prayer, inveighing against those building shelters and reconstructing buildings, arguing instead for the dire necessity of penitence and processions.[304] The most pressing issue was not

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smaller churches, a palace located outside the city, and a uniformity in design that placed religious and secular institutions on equal footing.

[302] However, according to the extensive witness accounts of the earthquake, there is no evidence of physical violence against Protestants in the immediate aftermath of the earthquake. Mark Molesky, "The Vicar and the Earthquake: Conflict, Controversy, and a Christening during the Great Lisbon Disaster of 1755," *E-journal of Portuguese History* 10, no. 2(2012): 76-94.

[303] Kendrick, *The Lisbon Earthquake*, 88-89, 113; Fuchs, "The Great Earthquakes of Lisbon 1755 and Aceh 2004," 51.

[304] José O. de A. Marques, "The Paths of Providence: Voltaire and Rousseau on the Lisbon Earthquake," *Cadernos de História e Filosofia da Ciência* (2005): 33-57. Although, Marques notes that the Jesuits in Portugal did not represent the views of the whole order. Other Jesuits had long been involved in scientific inquiry. By 1750, about thirty of the 130 observatories were led by Jesuits. Additionally, thirty-five lunar craters are named in honor of the pioneering Jesuit scientists. Ibid., fn. 3.

restoring order, feeding the hungry, or rebuilding the city, but restoring the relationship

with God to forestall future catastrophe. The juxtaposition of the divine and natural

interpretations of the earthquake in the city pitted the men of action and science against the

men of god.[305]

The Jesuits' prediction of a second earthquake on the anniversary of the initial event

threatened a mass exodus of residents. However, Pombal issued a decree banning anyone

from leaving the city. Undeterred, the Inquisition held an auto-da-fé on the first anniversary

of the earthquake to stem further catastrophes. Shortly thereafter, Pombal succeeded in

expelling the Jesuits from Portugal and imprisoning Malagrida on trumped up charges of

attempted regicide. In 1761, Malagrida was ironically the last individual executed by auto-

da-fé by the Portuguese Inquisition.[306]

4.4.2   Rousseau, Voltaire, and the Politics of Natural Disasters

The Lisbon Earthquake, much like the disasters in the twenty-first century such as the

attacks of September 11, 2001 or the 2004 earthquake and tsunami in Aceh, motivated

debates about the causes and meaning of catastrophe. After the earthquake, one debate in

particular stands out both because of the influential intellectuals involved in the discourse

but also the contributions its conclusions made to modern interpretations of disasters and

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[305] Kendrick, *The Lisbon Earthquake*, 71-112.

[306] While Pombal's reconstruction efforts set him at loggerheads with the Jesuit order, his opposition to the priests began some time before the earthquake. The Jesuits controlled significant swathes of land, called reductions, in the Portuguese colonies of Brazil and Paraguay where they had armed indigenous populations. The Jesuits control of the labor force, and their overweening influence on commerce, had pitted them against lay farmers and businessmen who protested the Jesuits' practices. Molesky, *This Gulf of Fire,* 347-348; Russell Dynes, *The Lisbon Earthquake in 1755: Contested Meanings in the First Modern Disaster*, Preliminary Paper #255 (University of Delaware Disaster Research Center, 1997); Kenneth Maxwell, "The Spark: Pombal, the Amazon, and the Jesuits," *Portuguese Studies* 17 (2001): 168-183. The expulsion of the Jesuits left a gaping hole in Portugal's educational system, a boon to Pombal who leveraged the opportunity to redesign the kingdom's curriculum to reflect latest advances in scientific inquiry and investigation among Enlightenment thinkers.

their management. Writing back and forth in a series of personal correspondence, essays, and poems, Rousseau and Voltaire engaged in a lively debate about the meaning of the earthquake. Voltaire attacked the optimism of scientific inquiry characteristic of the time regarding the regularity and reason inherent in the natural order while Rousseau grounded Voltaire's pessimism in a renewed faith in providence, but more importantly considerations of man's own role in his suffering and misfortune.[307] Rousseau's penetrating insights presciently foreshadow the concept of vulnerability analysis in disaster management practice of the twenty-first century. He saw disasters as the work of man, not the divine, the first social scientific interpretation of disaster and a transition to the explanatory model that explains disaster by means of human agency. Here, nature only provides the initial push for the disaster that follows.

The dialogue between Voltaire and Rousseau took place at a time of burgeoning belief in a mechanistic world view that promised order and regularity. Where order and regularity are to be found, so too is predictability with control of the natural world through manipulation of its laws. No scholar embodied this optimism as much as Gottfried Leibniz

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[307] In his attacks on optimism, Voltaire directed his ire towards the most well-known and influential proponents of this optimism, Gottfried Leibniz. Leibniz embodied the optimism of the period; he believed the world to be regular, orderly, and thus understandable. Leibniz's arguments, mirroring many scholars in his day, did not wholly separate the role of God, but distanced the divine sufficiently that scientific inquiry through experimentation, not a reading of Scripture through Aristotle, was the appropriate method for understanding the world. Leibniz relegated God to the role of a supreme intellect that established the universe according to regular, stable natural laws. Since God's intellect is perfect, then the world in which we reside must be the best of all possible worlds, "God's skill has to be infinitely superior to that of a human workman. The mere facts about what he produces do show God's power, but don't adequately convey his wisdom. Those who think otherwise – acknowledging the power but not properly admitting the wisdom of the source of things – will fall exactly into the same errors as the materialists and Spinoza, though they try to keep him at arm's length." While happenings might appear chaotic, the appearance only stems from the limited human capacity to detangle the seemingly inscrutable laws of the natural world. Events perceived as unpredictable were in fact part of God's harmonious plan. The views of Leibniz and his supporters regarding theological optimism were severely tested by the Lisbon earthquake. If God was just, and the world the best of all possible worlds, then the suffering of the many innocents was inexplicable. Gottfried William Leibniz and Samuel Clarke, *Exchange of Papers between Leibniz and Clarke, 1715-1716*, in the version presented by Jonathan Bennett at www.earlymoderntexts.com, 5. See also Merchant, *Autonomous Nature*, 138-139 and Huet, *The Culture of Disaster,* 48-49.

who maintained that this world represented the "best of all possible worlds" since it was designed by the supreme intellect of God.[308] The devastation of the Lisbon earthquake, much like the calamities that befell Job, motivated a moral crisis in the West as onlookers struggled for a satisfactory explanation for the suffering, especially since so many innocents reportedly died.

The debate between Rousseau and Voltaire took place in the midst of this crisis. Voltaire used the Lisbon earthquake as an opportunity to attack the theistic optimism of Leibniz and others.[309] His admonition against reading any sort of divine rationality in natural processes is coupled with a fatalism that suffering is an inescapable component of the human condition. Rousseau's response to Voltaire's fatalism was a tepid defense of providence, but also pressed Voltaire to consider the role that man played in his own suffering, bringing a human dimension to causality in suffering. Rousseau prods his readers to consider who was responsible for constructing the thousands of densely packed, shoddily built houses in the city that left it vulnerable to the calamities that day, nature or man?[310] Rousseau argues that the latter answer provides a better explanation for disasters; had better planning prevailed, the catastrophic losses may have been less. He also criticizes the behavior of the city's residents, citing reports that many failed to promptly evacuate in

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[308] Gottfried Leibniz, *Theodicy*, ed. Gaston Gura, trans. E.M. Huggard (New Haven: Yale University Press, 1952), 211-214.

[309] By the end of 1755, Voltaire had penned a poem on the Lisbon disaster. In it, Voltaire attacks Leibniz by name and the concept of theological optimism: "Say what advantage can result to all, / From Lisbon's lamentable fall? / Are you then sure, the power which could create / The universe and fix the laws of fate, / Could not have found for man a proper place, / But earthquakes must destroy of the human race?" Voltaire, *The Lisbon Earthquake: An Inquiry into the Maxim 'Whatever is, is Right,'* trans. William Fleming, Online Liberty Fund Library, accessed January 4, 2017, http://oll.libertyfund.org/titles/voltaire-the-works-of-voltaire-vol-x-the-dramatic-works-part-1.

[310] In a letter to Voltaire, Rousseau observes that "nature did not construct twenty thousand houses of six to seven stories there, and that if the inhabitants of this great city had been more equally spread out and more lightly lodged, the damage would have been much less and perhaps of no account." Jean Jacques Rousseau, *The Collected Writings of Rousseau*, Vol. 3, trans. Roger D. Masters and Christopher Kelly (Hanover: The University Press of New England, 1990), 110, as quoted in Dynes, *The Dialogue between Voltaire and Rousseau on the Lisbon Earthquake*.

order to protect their wealth and property; in modern terms, a failure of appropriate emergency management procedures. In other words, Rousseau suggests that man, not God or nature, is the final source of our suffering.[311]

The Lisbon earthquake helped to propel ongoing debates about the role that God, nature, and man played in events of great misfortune.[312] In his exchange with Voltaire, Rousseau emphasizes the considerable role that man played in the catastrophe, but in doing so also underscored the possibility of man's capacity for preventing and mitigating disaster.[313] If Rousseau identified the philosophical import of the earthquake, then Pombal recognized the import of political action as a resolution to human misfortune. From Lisbon onward, discourse centered on the recourse of political action to remedy the problem of injustice introduced by natural events such as earthquakes.[314] Rather than the Inquisition's auto-da-fé, or indeed simple philosophical prudence, the state-led resolution to disaster increasingly incorporated technically driven remedies like building codes.[315] This scientific-technological approach treated disasters as disorder amenable to human control,

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[311] Rousseau points out that the disaster could hardly had been conceived as such had it taken place "in the middle of the wilderness" or if had not affected "gentleman of the cities." Rousseau, *The Collected Writings of Rousseau*, 110.

[312] Huet, *The Culture of Disaster*, 51-53; Merchant, *Autonomous Nature*, 142-143; Molesky, *This Gulf of Fire*, 326-333.

[313] Marques, "The Paths of Providence: Voltaire and Rousseau on the Lisbon Earthquake," 33-57 and Russell Dynes, *The Dialogue between Voltaire and Rousseau on the Lisbon Earthquake: The Emergence of a Social Science View*, Preliminary Paper no. 293, 1999, University of Delaware Disaster Research Center, accessed January 4, 2017, http://udspace.udel.edu/bitstream/handle/19716/435/PP+293.pdf?sequence=1.

[314] Molesky, *This Gulf of Fire*, 336-337. After the earthquake, the flagship journal of the British Royal Society published dozens of articles speculating about the scientific causes of earthquakes.

[315] Susan Neiman, *Evil in Modern Thought: An Alternative History of Philosophy* (Princeton and Oxford: Princeton University Press, 2015), 249-250.

making it possible to devise strategies that prevented or significantly weakened their effects.[316]

4.5 DISASTERS AS THE WORK OF MAN

Rousseau's remarks that the source of disaster in Lisbon rested with human action, not the earthquake itself, was prescient. He was among the first to outline the major precepts of the predominant research paradigm among disaster researchers today known as vulnerability analysis.[317] While the concept itself originated in the epistemic communities involved in disaster research, the idea that human actions are responsible for the disordered effects of disasters is also increasingly apparent among laypersons.[318] Even in supposedly natural disasters, the majority of victims have been found to use the explanatory model of disaster that implicates humans, not nature, chance, or God. Those that do so believe disasters are ultimately controllable or foreseeable and therefore the government is responsible for ensuring that control.[319] This latter trend is especially apparent in the intersection of technology and disasters, such as concerns over the impact of climate change mediated through natural processes resulting in "natech" disasters in which technological components and natural processes are intertwined. Although obscured by

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[316] Martin Stuber, "Divine Punishment or Object of Research? The Resonance of Earthquakes, Floods, Epidemics and Famine in the Correspondence Network of Albrecht von Haller," *Environment and History* 9, no. 2(2003): 173-193.

[317] Scholars of disasters include scientists in fields of study associated with particular hazards, but also social scientists, predominantly sociologists and geographers.

[318] As Drabek claims, "Flood victims . . .may redefine what constitutes and 'Act of God.' Indeed, the American experience of the past three decades seems to be one wherein God is losing ground very rapidly. Increasingly, disaster victims engage in a blame assignation process." T.E. Drabek, *Human Responses to Disaster: An Inventory of Sociological Findings* (New York: Springer, 1986), 211. See also Terry Cannon, "Vulnerability Analysis and the Explanation of 'Natural' Disasters," in *Disasters, Development, and Environment,* ed. Ann Varley (New York: John Wiley and Sons, Ltd., 1994), 13-30; Wisner et al., *At Risk*, 14; Anders Wijkman and Lloyd Timberlake, *Natural Disasters: Acts of God or Acts of Man?* (Washington DC: Earthscan, 1984).

[319] T. Jean Blocker and Darren E. Sherkat, "In the Eyes of the Beholder: Technological and Naturalistic Interpretations of a Disaster," *International Crisis Quarterly* 6(1992): 153-166.

complex causal chains, the identification of human agents responsible for disasters increases the burden of responsibility on governments and relevant epistemic communities to adequately prevent and mitigate the effects of disaster. Vulnerability science, and concerns over the intersection of technology and natural disasters, shifts the explanatory model of disasters from one that solely invokes nature, chance, or god to one that includes human agency that further extends the traumatic effects of disasters to the political realm.[320]

In 2001, the United Nations and the World Bank released a lengthy report that assessed disaster management across the globe. The report's intriguing title, *Natural Hazards, Unnatural Disasters,* highlights the considerable conceptual shift disaster has undergone among relevant research communities. The natural hazards that trigger disasters are insufficient in and of themselves as explanations. While it may appear that earthquakes, tornados, or floods bear primary responsibility for the death and destruction left in its wake, many argue it is in fact human acts of commission and omission that are accountable for the misfortune.[321] The conceptual shift in how people think about disasters is not merely academic. In 2012, six Italian scientists were convicted of manslaughter for the poor advice they provided the public in advance of an earthquake in L'Aquila that killed over three-hundred people.[322] In the U.S., litigants have also prevailed in court cases trying state and

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[320] However, the attribution of blame in disasters with technological components can also be tempered by the diffuseness or ambiguity of harm. Air pollution, which arises form myriad, diffuse actors or institutions, is difficult to pin down to a particular responsible party. Jasper, "The Emotions of Protest," 397-424.

[321] United Nations and World Bank, *Natural Hazards, Unnatural Disasters: The Economics of Effective Prevention*, available at http://documents.worldbank.org/curated/en/620631468181478543/pdf/578600PUB0epi2101public10BOX353782B.pdf , 1.

[322] The scientists, however, were later exonerated. Edwin Cartlidge, "Why Italian Earthquake Scientists were Exonerated," *Science*, February 10, 2015, http://www.sciencemag.org/news/2015/02/why-italian-earthquake-scientists-were-exonerated.

federal governments for the deleterious effects of climate change on the atmosphere and other natural systems.[323] Increasingly, human actions are viewed as culpable for disaster at every phase of the disaster cycle, from the pre-impact phase, the immediate emergency response, and in post-impact reconstruction. Disasters are no longer the work of god, nature, or chance.[324] Instead, disasters are the work of man, including the work of politics. In this regard, the blame for the resulting disorder and responsibility for returning order and functioning to society are both political problems as "very important values (including survival itself) are being allocated by both governmental action and inaction . . . ."[325]

Vulnerability analysis studies how the work of man bears responsibility for disaster misfortune alongside natural processes.[326] The concept expresses the tension evident in modernity that technology is at once our greatest savior and our greatest foe. It reveals the promise first expressed in Machiavelli's insistence on the capacity of man to overcome, and even thrive, against misfortune in a disorderly world to the later promise of mastery over a newly revealed rational, orderly cosmos through scientific and technological advancements. Voltaire's philosophical musings on the portent of the Lisbon earthquake reveal the fracture in that confidence, questioning the presupposition that any god guides our actions, that the world is orderly and therefore scrutable, and that man can act upon the

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[323] James Conca, "Children Win Another Climate Change Legal Case in Mass Supreme Court," *Forbes*, May 19, 2016, http://www.forbes.com/sites/jamesconca/2016/05/19/children-win-another-climate-change-legal-case-in-mass-supreme-court/#1684d753556b.

[324] As Tierney notes, "Looking at disasters as a social production requires a shift in thinking, away from the notion that the forces of nature . . . produce disasters and toward a fuller understanding of the role that social, political, economic, and cultural factors play in making events disastrous." Tierney, *The Social Roots of Risk,* 5.

[325] A. Cooper Drury and Richard Stuart Olson, "Disasters and Political Unrest: An Empirical Investigation" *Journal of Contingencies and Crisis Management* 6, no. 3 (1998).

[326] Wisner et al. specifically reserve the term "vulnerability" in the analysis of disasters so that research is consciously directed towards the vulnerability of people where most attention and resources is needed. Moreover, it is the actions or inactions of individuals, or institutions comprised of individuals, that contribute to the vulnerability of certain populations or households. Wisner, et al., *At Risk*, 55.

world in such a way as to ensure that bad things do not happen to good people. While the term vulnerability itself connotes human fragility more than strength, the insistence on using its study to develop effective intervention policies to prevent and mitigate misfortune is simultaneously a potent signal of human confidence.[327]

After the Lisbon earthquake, the nascent field of seismology burgeoned as scientists plied experiential methodologies to explain the phenomenon in naturalist terms. If earthquakes, or other disasters, were to be better understood then engineering solutions to the devastation could be found, whether in early warning systems or improved building practices.[328] Understanding or explaining disasters from this perspective is synonymous with the geo-tectonics, atmospheric, or biological forces said to trigger disasters. The destruction associated with a hazard resulted from man's imperfect knowledge of the forces which prohibit the proper responses or adjustments to them.[329] Nature itself was the primary active force – disasters indeed were inseparable from the ice storms, hurricanes, or volcanic eruptions that wreaked havoc while people featured as the unfortunate, passive

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[327] Wisner et al. address the seeming dichotomy in vulnerability, that at once asserts the weakness and passivity of people and communities while also suggesting that policy interventions to prevent and reduce the impact of disasters is possible. The authors note that "it is necessary to use terminology that [emphasizes] the *problem* [emphasis in the original] that is generated by social processes -- if people's capabilities were all working properly then there would be few disasters." Wisner et al., *At Risk,* 14. Hewitt also emphasizes that while technology has induced additional anxieties over risk, the sense of agency accompanying technological advances is also a "positive creed" that is an "assertion of potency where the grounds for conviction seem least apparent." Kenneth Hewitt, "The Idea of Calamity in a Technocratic Age," in *Interpretations of Calamity*, ed. K. Hewitt (Boston: Allen & Unwinn, Inc., 1983), 10.

[328] Dorothea Hilhorst, "Responding to Disasters: Diversity of Bureaucrats, Technocrats, and Local People," *International Journal of Mass Emergencies and Disasters* 21, no. 1(2003): 37-55.

[329] Gilbert White, sometimes called the "father" of hazards research, introduced the term "adjustment" to explain the different ways that people or governments can react to reduce problems associated with flooding, including adjustments in land elevation, flood abatement, flood protection (engineering solutions such as the use of levees), or land-use changes. N. McDonald, et al., "The Significance of Gilbert F. White's 1945 Paper 'Human Adjustment to Floods' in the Development of Risk and Hazard Management," *Progress in Human Geography* 36, no. 1(2011): 125-133; Gilbert White, "Human Adjustment to Flood" (PhD diss., University of Chicago, 1945), 46-47.

victims.[330] Blame for the destruction rested squarely with a violent or rampaging nature.[331]

The human dimension focused on how people and communities responded to disasters to

improve emergency management practices.[332] Physical scientists worked to predict and

monitor the hazards while social scientists looked at individual and group behavior in the

emergency phase after hazard impact to improve preparedness.[333] The applied, physical-

science based approach that treats hazards as the primary actor is not wrong, but it does not

do a good job of explaining why some communities or households are more resilient than

others.[334]

The impetus behind the research on vulnerability, as Rousseau suggested, is that it is

likely that if the same hazard could strike two different places the impact, in terms of

property damage, lost lives, or recovery time, could vary considerably.[335] An earthquake

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[330] Gilbert White, ed., *Natural Hazards: Local, Global, National* (New York: Oxford University Press, 1974), 3-4. In White's edited volume, which included numerous chapters from international contributors, one Soviet author concluded that hazards developed "beyond any direct dependence on man's activity." As quoted in James Waddell, review of *Natural Hazards: Local, National, and Global*, ed. by Gilbert F. White, *Human Ecology 5*, no. 1(1977): 69-76. Similarly, Ian Burton and Robert W. Kates who defined disasters as extreme external forces in the natural environment that are harmful to man. Ian Burton and Robert W. Kates, "The Perception of Natural Hazards in Resource Management," *Natural Resources Journal* 3, no. 3 (1964): 412-44. More recent examples of the hazard-centered approach include Edward Bryant, *Natural Hazards*, 2nd ed. (Cambridge: Cambridge University Press, 2005) and Keith Smith, *Environmental Hazards: Assessing Risk and Reducing Hazards*, 6th ed. (London and New York: Routledge, 2013).

[331] Kendrick Frazier, *The Violent Face of Nature: Severe Phenomena and Natural Disasters* (New York: William Morrow, 1979) and Charles H.V. Ebert, *Violence of Nature and Threats by Man* (Dubuque, IO: Kendall/Hunt, 1993).

[332] Hilhorst, "Responding to Disasters," 37-55 and Wisner et al., *At Risk*, 10-11.

[333] Hilhorst, "Responding to Disasters," 37-55 and Anthony Oliver-Smith, "Anthropological Research on Hazards and Disasters," *Annual Review of Anthropology* 25(1996): 303-328.

[334] Mark Pelling, *The Vulnerability of Cities*, 47.

[335] One fascinating example that aptly demonstrates this concept is how differently industrialized and pre-industrialized societies are likely to respond to powerful solar flares. While pre-modern societies are likely to experience misfortune from typical natural hazards, few individuals among these societies are liable to observe the phenomena, much less discern any appreciable impact, from a solar event on their everyday life. In 1859 the largest recorded solar flare occurred, called the Carrington event after the amateur astronomer that observed it. At the time, electric technologies, mainly the telegraph, were in their infancy both in terms of engineering and the extent to which societies depended on them for daily functioning. Media reports from the time indicate that telegraphs in the U.S. and Europe were disrupted for at least several hours. Normal functioning returned thereafter with little to no further economic or public health disturbances. If a solar flare of similar magnitude were to occur today, the disruptions on energy, communication, and transportation systems would exceed in orders of magnitude those experienced in 1859. It would, indeed, be a disaster of significant proportions. In 2009, the National Research Council reported that a similar

in the desert is hardly a disaster in the same way that an earthquake in a major metropolis is a disaster.[336] Pre-disaster preparedness is critical to escape more severe damage. Safe houses, strong levees, an adequate stock of relief supplies, adequate shelters, and solid evacuations plans are all necessary for a community to ably withstand disaster. Of course, the government's response to the disaster is also crucial. The intervention must be immediate or timely, reach all of those in need, and be efficient in its deployment. The government's response to Hurricane Katrina failed on virtually all of these requirements. It was too late, it ignored marginalized communities, it was inefficient, and beset with poor planning and corruption.[337] In this sense, Hurricane Katrina was in many ways a "preventable catastrophe" as the overcrowded agendas of policymakers, skewed political priorities of the presidential administration, and an overemphasis on counter-terrorism and

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solar flare could cost the country around $1 trillion a year in damages with at least a four- to ten-year recovery period, leaving an estimated 130 million people without power. C. Muller, "The Carrington Solar Flares of 1859: Consequences on Life," *Origins of Life and Evolution of Biospheres* 44, no. 3 (2014): 185-195 and Committee on the Societal and Economic Impacts of Severe Space Weather Events: A Workshop, National Research Council, *Severe Space Weather Events – Understanding Societal and Economic Impacts: A Workshop Report* (Washington, DC: National Academies Press, 2009), 4.

[336] Stephen Jackson, "Un/natural Disasters, Here and There," *Understanding Katrina: Perspectives from the Social Sciences*, June 11, 2006, http://understandingkatrina.ssrc.org/Jackson/.

[337] Ibid. The list of failures during the government response to Hurricane Katrina are legion; several examples follow but they are by no means exhaustive. Gheytanchi et al. describe twelve key failures of the government response to Hurricane Katrina, including lack of efficient communication between local, state, and federal officials; poor coordination of plans, including a failure to leverage medical ships to treat wounded and buses to speed evacuations; ambiguous training and lack of standards; and failure to facilitate access to relief resources to the poorest in the Mississippi Delta Region. Anahita Gheytanchi et al., "The Dirty Dozen: Twelve Failures of the Hurricane Katrina Response and How Psychology Can Help," *American Psychologist* 62, no. 2(2007): 118-130. Takeda and Helms cite bureaucracy as one of the primary failures of the government response, arguing that FEMA and the associated agencies tasked with response rely too heavily on centralized command, cannot integrate outside information, and evidenced inflexible commitment to failing courses of action. Among other mistakes, FEMA officials turned away assistance from experienced foreign agencies, sent away badly needed relief supplies from private companies, and prevented dispatching of fire and emergency services unless requested through centralized command. Margaret B. Takeda and Marilyn M. Helms, "'Bureaucracy, Meet Catastrophe': Analysis of Hurricane Katrina Relief Efforts and their Implications for Emergency Response Governance," *International Journal of Public Sector Management* 19, no. 4 (2006): 397-411.

homeland security prohibited the infrastructural improvements and adequate disaster planning needed to decrease the severe impact of the storm.[338]

Even within "natural" disasters, then, the factors that lessen or worsen the effects are endogenous insomuch as the vulnerability profile of the affected community is the result of ongoing processes.[339] Although the modifier "natural" is still frequently used to describe disaster, the term is increasingly viewed as a misnomer since neither the hazard event itself nor the conditions that gave rise to the disaster are understood as originating solely within nature outside the realm of human agency. Instead, the causal chain leads to a tangled web of political, social, and economic configurations that make some communities more vulnerable to disorder triggered by hazard events.[340] These general trends filter down to the level of the household, producing the unsafe conditions that makes it more difficult for them to survive and recover pre-disaster functioning.[341]

The broader structural political, economic, and social processes impact disaster severity by shaping the asset profile of individuals and households.[342] Surviving and recovering

[338] Parker et al. argue that the overcrowded agenda of the Bush administration resulted from attention on the Iraq War, the Valerie Plame affair, and national security issues related to border protection, immigration, and counterterrorism efforts. Likewise, state officials were engaged with economic development, high crime rates, and poor education. Policymakers tend to focus on issues sequentially, not simultaneously, creating bottlenecks of time and attention that impair disaster preparedness and response. Since the attacks of 9/11, the DHS had prioritized counterterrorism efforts, funneling time and effort away from disaster preparation and response. Charles F. Parker, et al., "Preventable Catastrophe? The Hurricane Katrina Disaster Revisited," *Journal of Contingencies and Crisis Management* 17, no. 4(2009): 206-220.

[339] P. Auerswald et al., "Where Private Efficiency Meets Public Vulnerability: The Critical Infrastructure Challenge," in *Seeds of Disaster, Roots of Response*, eds. Phillip E. Auerswald e al. (New York: Cambridge University Press, 2006), 5.

[340] Juneja and Mauelshagen, "Disasters and Pre-industrial Societies," 1-31.

[341] Pelling, *The Vulnerability of Cities,* 47; Wisner et al., *At Risk*, 75-79; Oliver-Smith, *Theorizing Disasters*, 23-48.

[342] The discussion on vulnerability analysis is partially based on Wisner et al.'s influential models of vulnerability, the Pressure-and-Release (PAR) model and the Access model. The PAR model outlines a causal chain that translates root causes and dynamic pressures into the unsafe conditions that comprise vulnerability. The pressure occurs at the intersection of vulnerability and the hazard. Release is incorporated in the model to express how the negative consequences of disaster are reduced – by reducing, or releasing, the vulnerability of effected populations. The Access

from disasters requires a wide variety of assets. But, while assets are often perceived as material, whether capital, tools and equipment, or labor power, critical assets in disaster situations can also be non-material, including social networks, ethnicity, or knowledge and skills.[343] In the event of a disaster, the assets available to a household protect its members from privation, an informal insurance against vulnerability.[344]

Household assets are shaped by both near and distant causes.[345] Rapid urbanization, demographic shifts, development, natural resource degradation, and climate change are dynamic pressures that contribute to unsafe conditions vulnerable households experience. Politically, access to assets are attenuated by the state, including the capabilities of security forces, good governance practices, distributive policies, enforcement of citizen rights, and the capabilities of the agencies tasked with responding to disasters.[346] Economically, marginalized households are more likely to reside in hazard-prone environments but are also less likely to benefit from government intervention when hazards occur, compounding

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model is a deeper dive into how vulnerability is produced at the household level through the impact of social relations and structures of domination on asset accumulation and retention. Wisner et al., *At Risk*, 49-86, 87-123.

[343] Ibid., 98-99. Aldrich and Klinenberg both isolate robust social networks as an important asset to withstanding the deleterious impacts of disasters. Daniel P. Aldrich, *Building Resilience: Social Capital in Post-Disaster Recovery* (University of Chicago Press, 2012), 15-17 and Eric Klinenberg, *Heat Wave: A Social Autopsy of Disaster in Chicago* (University of Chicago Press, 2015), 230-311.

[344] Pelling emphasizes household decisions regarding assets can either increase or decrease a household's vulnerability to hazards. Sometimes, it is the sheer quantity of resources that matters, but particular asset patterns are also important components of vulnerability. Households that have assets concentrated in one geographical area, or one type of asset, may be more vulnerable that those with dispersed assets. Areas or industries that experience elevated rates of inflation, for instance, may disadvantage those with concentrated assets. Pelling, *The Vulnerability of Cities,* 49-55.

[345] Wisner et al. identify numerous sources of distance. Root causes are spatially distant when they originate in geographically distant centers of political economic power. The causes may also be temporally distant if they occurred in distant historical time. Finally, root causes are distant in the sense that they are so tightly bound with cultural assumptions or social relations that they have an invisible or taken-for-granted status in society. Wisner et al., *At Risk*, 52-53.

[346] Pelling, *The Vulnerability of Cities*; Wisner et al., *At Risk,* Kathleen Tierney, "Social Inequality, Hazards, and Disasters," in *On Risk and Disaster: Lessons from Hurricane Katrin*a, ed. Ronald J. Daniels, Donald F. Kettl, and Howard Kunreuther (Philadelphia: University of Pennsylvania Press, 2006), 113-121.

existing vulnerabilities and exposing them to worse outcomes. Developers, with the tacit

or explicit consent of authorities, build cities at or below sea-level, on earthquake faults, in

flood-prone coastal areas, or destroy natural barriers in the ecosystem, like wetlands or

mangrove swamps, that protect areas from extreme weather. The development in exposed

areas is driven by the calculus of economics, either by the necessity of the economically

depressed to shelter in less desirable, dangerous areas or developers eager for profits

without due consideration of the costs imposed on local communities.[347] Finally, political

and economic processes can fuel disadvantaged social relations whereby rates of survival

and post-disaster recovery are poorer due to one's race, gender, or age, among other

demographic characteristics.[348] While some households are able to evacuate in the pre-

impact period, then rebuild their home post-recovery, others are not able to evacuate and

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[347] Rabindra Osti, Shigenobu Tanaka, and Toshikazu Tokioka, "The Importance of Mangrove Forest in Tsunami Disaster Mitigation," *Disasters* 33, no. 2 (2009): 203-213; Kenneth J. Bagstad, Kevin Stapleton, and John R. D'Agostino, "Taxes, Subsidies, and Insurance as Drivers of United States Coastal Development," *Ecological Economics* 63, no. 2 (2007): 285-298; Shirley Laska and Betty Hearn Morrow, "Social Vulnerabilities and Hurricane Katrina: An Unnatural Disaster in New Orleans," *Marine Technology Society Journal* 40, no. 4 (2006): 16-26; David R. Godschalk, David J. Brower, and Timothy Beatley, *Catastrophic Coastal Storms: Hazard Mitigation and Development Management* (Durham, NC: Duke University Press, 1989); William R. Freudenberg, et al., "Disproportionality and Disaster: Hurricane Katrina and the Mississippi River-Gulf Outlet," *Social Science Quarterly* 90, no. 3 (2009): 497-515.

[348] Shirley Laska and Betty Hearn Morrow, "Social Vulnerabilities and Hurricane Katrina: An Unnatural Disaster in New Orleans," *Marine Technology Society Journal* 40, no. 4(2006): 16-26. Klinenberg identifies the socially isolated elderly as the primary victims of the vicious 1994 heat wave in Chicago that killed hundreds of people. Klinenberg, *Heat Wave*, 20-21. Similarly, households with minority status have increased chances of living in hazard-prone environments and are disadvantaged at all stages of disaster response from the initial government intervention to later recovery efforts. Susan L. Cutter, et al., "The Long Road Home: Race, Class, and Recovery from Hurricane Katrina," *Environment: Science and Policy for Sustainable Development* 48, no. 2 (2006): 8-20; James R. Elliot and Jeremy Pais, "Race, Class, and Hurricane Katrina: Social Differences in Human Responses to Disaster," *Social Science Research* 35, no. 2 (2006): 295-321; Alice Fothergill, Enrique GM Maestas, and JoAnne DeRouen Darlington, "Race, Ethnicity and Disasters in the United States: A Review of the Literature," *Disasters* 23, no. 2 (1999): 156-173. Women are more vulnerable to disaster for a variety of reasons, including their roles as caretakers, susceptibility to post-traumatic stress disorder, women-headed households have fewer resources, and the gender dynamics in some cultures exposes women to greater harm. In the 2004 Aceh Tsunami, for example, four times as many women as men were killed as most women did not know how to swim and were more likely to be confined in the home at the time the massive waves struck shore, some fearful of being seen outside without head coverings. Jörn Brikmann, "Assessing Vulnerability Before, During, and After a Natural Disaster in Fragile Regions: Case Study of the 2004 Indian Ocean Tsunami in Sri Lanka and Indonesia" (Working Paper, UNU-WIDER, no. 2008.50, Helsinki, Finland, 2008), https://www.econstor.eu/bitstream/10419/45110/1/571436080.pdf, 17; Eileen Pittaway, Linda Bartolomei, and Susan Rees, "Gendered Dimensions of the 2004 Tsunami and a Potential Social Work Response in Post-Disaster Situation," *International Social Work* 50, no. 3 (2007): 307-319.

cannot repair or replace their residences. The difference in assets can mean the difference between survival and death or having a home and homelessness.[349] Disasters tend to put these existing disparities into stark relief by revealing who survives and who adapts.

Likewise, in political science, researchers have used large datasets of disasters across the world to demonstrate the linkage between degrees of severity and levels of income. The poorer the state, regardless of the type of disaster, the more casualties.[350] Moreover, in the recovery effort following a triggering event, those of poor socioeconomic status are much less likely to receive recovery aid despite being more heavily impacted.[351] Another database, the Social Vulnerability Index, measures levels of vulnerability in U.S. counties. The variables used to determine a county's level of vulnerability combines biophysical vulnerability (physical characteristics of hazards and environment) with social measures (gender, socioeconomic status, homeownership status, education, etc.).[352]

The focus on vulnerability as the central feature of disaster indicates the extent to which human agency is involved in the destructive outcomes of a hazard impact. In this regard, the actions, or negligence, of persons or institutions is more to blame than the hazard originating in nature.[353] While natural is a frequent modifier of the term disaster, the

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[349] Wisner et al., *At Risk*, 12.

[350] Charles Cohen and Eric Werker, "The Political Economy of `Natural" Disasters," *Journal of Conflict Resolution* 52, no. 6 (2008): 795-819. Albala-Bertrand used a large-n quantitative analysis to test theories about the economic impact of natural disasters in developing countries. His findings concluded that disasters are not as economically harmful as previously thought. J. M. Albala-Bertrand, *Political Economy of Large Natural Disasters: With Special Reference to Developing Countries* (Oxford: Oxford University Press, 1993).

[351] Tierney, "Social Inequality, Hazards, and Disasters," 109-128

[352] Hazards and Vulnerability Research Institute, "Social Vulnerability Index," University of South Carolina, http://webra.cas.sc.edu/hvri/products/sovi.aspx (accessed September 4, 2014).

[353] Kathleen Tierney, *The Social Roots of Risk*, 5 and Carlo Pelanda, *Disaster and Sociosystemic Vulnerability* (Newark, DE: University of Delaware Disaster Research Center, 1981).

modifier is misleading insomuch as it is increasingly difficult to speak of truly natural

disasters or disasters whose outcomes are wholly attributable to natural forces.[354]

4.5.1   Vulnerability Science and Hurricane Katrina

When the vulnerability analysis framework is applied to Hurricane Katrina, it reveals

how much of the disaster was unnatural.[355] After all, New Orleans had been hit by storms

near the ferocity of Katrina, including Hurricane Betsy and Camille in the 1960s that

resulted in limited damage.[356] The actions of government institutions and private

developers played a large role in the overwhelming damage caused by the hurricane.

The fragility of New Orleans urban environs began with the early expansion of

settlement that sought to take advantage of its proximity to valuable water transit. The

precarious deltaic region, built up by millennia of silt deposits by the Mississippi River,

has always presented challenges to human habitation, but early settlers believed its strategic

location outweighed the risks as it provided transportation routes into the Midwestern

region and into the Gulf of Mexico.[357] The strips of natural levees on the beds of the

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[354] While most sociologists and geographers that study disasters remain in the vulnerability family, some emphasize the importance of vulnerability to disasters more than others. Both Dombrowsky and Pelanda are radical constructionists that prefer to scrap analysis of hazards altogether in disasters. Pelanda defines disasters as the "actualization of social vulnerabilities" while Dombrowsky explains disasters as the "collapse of cultural protections." Similarly, Gilbert attributes disasters as a result of a hazard impact with the "underlying logic in the community." Freudenberg et al. do not discount the hazard, but argue that getting to the "true measure of the disaster" requires investigating the "character of the habitat being struck" as opposed to the "character of the force doing the striking." Carlo Pelanda, *Disaster and Sociosystemic Vulnerability* (Newark, DE: University of Delaware Disaster Research Center, 1981), accessed at http://udspace.udel.edu/handle/19716/440; Claude Gilbert, "Studying Disaster," 27; William R. Freudenburg et al., *Catastrophe in the Making: The Engineering of Katrina and the Disasters of Tomorrow* (Washington, DC: Island Press/Shearwater Books, 2009); Dombrowsky, "Again and Again," in *What is a Disaster?: Perspectives on the Question*, ed. E.L. Quarantelli (London and New York: Routledge), 21.

[355] William R. Freudenberg, Robert Gramling, Shirley Laska, and Kai T. Erikson, "Disproportionality and Disaster: Hurricane Katrina and the Mississippi River-Gulf Outlet," *Social Science Quarterly* 90, no. 3 (2009): 497-515.

[356] Hurricane Betsy and Camille had lower overall wind speeds than Hurricane Katrina, but it is water, not wind, that is the deadliest killer in hurricanes.

[357] Craig L. Colten, *An Unnatural Metropolis: Wresting New Orleans from Nature* (Baton Rouge: Louisiana State University Press, 2005), 2

region's profuse waterways – the rivers, the bayous, and distributaries – are surrounded by the country's largest concentration of wetlands and low-lying floodplains.[358] The natural levees, which are the highest ground in the area, were the site of the original settlements, including the famous French Quarter. As the availability of these tolerable areas diminished, public efforts to reduce the "unwanted conditions" through engineering solutions via public institutions increased, an imposition of technological control on an unruly environment.[359] New Orleans's history is synonymous with efforts in landscape engineering to secure the city against watery inundation on the alluvial floodplains where the city is built.[360] Thus, some of the first decisions that fueled the Katrina disaster are evident in the initial decisions to settle in a remarkably vulnerable area.

More recently, policies that promoted settlement in especially geographically hazardous areas and economic development that has further exacerbated these conditions all contributed to the deleterious effects of Katrina. During the 1960s, initiatives for public housing in New Orleans also placed large communities of African-Americans in undesirable, lowland areas of the city, including the Lower Ninth Ward that perches so precariously underneath Lake Pontchartrain. In the hazardous region, poverty is unusually equated with geography where the economically prosperous occupy most of the high ground. These policies helped to increase the vulnerability of New Orleans residents to extreme weather events, leading one activist to conclude that "Poor and black = low, wet,

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[358] The term levee is from the French *lever*, "to raise," which early French explorers used to describe the slightly higher elevations along the riverbanks. The small slivers of land result from the sedimentation process where the heaviest silt particles deposit more rapidly than smaller particles, leaving the areas adjacent to the river channels with the most sedimentation. Freudenberg et al., *Catastrophe in the Making,* 33.

[359] Craig L. Colten, *An Unnatural Metropolis,* 48. See also Tierney, "Social Inequality, Hazards, and Disasters," 113.

[360] Colten, *An Unnatural Metropolis*, 78.

and maybe dead.[361] Poverty not only impacted the geography of risk, but also households' capacity to escape their hazardous conditions. Residents with more financial resources had greater flexibility in making evacuation plans. The majority of residents who stayed during the storm reported being unable to evacuate due to financial or transportation constraints.[362]

Development policies in the Mississippi Delta region, dubbed the "growth machine," contributed tremendously to the increased vulnerability of the city.[363] The policies, enacted by private economic actors in conjunction with local officials, involved significant environmental damage but were justified by purported positive economic benefits for the impacted communities that never materialized. One of the direst environmental impacts of these development policies was the destruction of wetlands. When Hurricane Betsy and Camille hit in the 1960s, a great deal of the region's original wetlands remained intact. Between the 1960s and 2005 however, the region had lost more than 1,700 square-miles of wetlands, an area about the size of Delaware. The thick bands of wetlands had acted as a buffer against strong storms in the past.[364]

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[361] Eric Mann, "Flooded City, Drowned Justice," *Worldwatch Institute* 19, no. 5(2006): 40-42. For further literature on the intersections of race, poverty, and geography in New Orleans, see Susan L. Cutter, "The Geography of Social Vulnerability: Race, Class, and Catastrophe," Social Science Research Council, accessed August 14, 2014http://understandingkatrina.ssrc.org/Cutter/; Carolyn Kousky and Richard Zeckhauser, "JARing Actions that Fuel the Floods," in *On Risk and Disaster: Lessons from Hurricane Katrina*, eds. Robert J. Daniels, Donald F. Kettl and Howard Kunreuther (Philadelphia: University of Pennsylvania Press, 2006), 59-73; Neil Smith, "There's No Such Thing as a Natural Disaster," *Social Science Research Council*, http://understandingkatrina.ssrc.org/Smith/ (accessed August 14, 2014);

[362] Smith, "There's No Such Thing as a Natural Disaster*"* and Cutter, "The Geography of Social Vulnerability.*"*

[363] Molotch first described the city as an economic growth machine that benefits a narrow band of powerful economic actors while disadvantaging others. Harvey Molotch. "The City as a Growth Machine: Toward a Political Economy of Place," *American Journal of Sociology* 82, no. 2 (1976): 309-332.

[364] Freudenburg et al., *Catastrophe in the Making*, 55-66. It is difficult to quantify how much intact wetlands would have lowered the damage of Katrina. But, experts agree that wetlands are powerful buffers against storm surges. Some positive effects of wetlands were observed during Hurricane Andrew. When it barreled through the coastal marshes of Louisiana, a reduction of 3.1 inches per linear mile of marsh was noted. Kousky and Richard Zeckhauser, "JARing Actions that Fuel the Floods," 60 and Gary P. Shaffer et al., "The MRGO Navigation Project: A Massive Human-Induced Environmental, Economic, and Storm Disaster," *Journal of Coastal Research* (2009): 206-224.

One of the primary culprits of wetland destruction, and increased regional vulnerability to storm surges following hurricanes, is the Mississippi River Gulf Outlet (MRGO).[365] The project serves as perhaps the ultimate example of the growth machine on disadvantaged communities. However, other edifices, ironically including the levees, floodwalls, canals and dams intended to protect the city from flooding, also contribute to wetland loss by preventing the deposits of sediment from the Mississippi River that replace elevations lost to erosion. Moreover, when the flood protection systems fail, the flooding is often more severe than it would have been without the protective measures.[366] Protective measures also serve to increase vulnerability by lowering perceptions of risk among residents, encouraging more settlement in hazardous areas that exacerbates the extent of damage.[367]

The MRGO is a 76-mile long canal shortcut from the Mississippi River to the Gulf of Mexico. The canal was intended to transition the city of New Orleans from a river town to a seaport. Prior to the development of the MRGO, oceangoing vessels bringing cargo through New Orleans had to navigate 100 miles down the crooked Mississippi River. The MRGO project was first envisioned as early as the 1930s, but did not begin construction by the USACE until the late 1950s, taking nearly a decade to complete. Local developers and supporters engaged in a concerted campaign to convince the USACE that the net economic gains of the canal exceeded the investment of taxpayer dollars. The vocal proponents of the MRGO included the Board of Commissioners for the Port of New Orleans, known locally as the Dock Board, and the Tidewater Development Association.

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[365] Residents of the region call the canal "Mister Go" or "Hurricane Highway."

[366] Kousky and Zeckhauser, "JARing Actions that Fuel the Floods," 65.

[367] Ibid., 66.

The Dock Board, formed by the New Orleans legislature in 1896, was intended to oversee the city's wharves, protect transit of the city's waterways, and encourage economic growth. The Dock Board and the Tidewater Development Association were joined by a city-wide coalition of financiers, bankers, shipbuilders, local officials, and newspapers that pushed for the MRGO. Elite interests prevailed when Congressional legislation 1958 approved the MRGO project.[368]

The economic benefits of the MRGO for the city never materialized. The primary beneficiaries of the MRGO were the shipping and industrial development interests that received federal subsidies for commercial activities. The geographical uniqueness of the delta, which relied on constant sedimentation from the Mississippi and Missouri Rivers, complicated construction, requiring more dredging and earth removal than the Panama Canal. The steady rate of sedimentation also meant that the USACE had to dredge the canal each year to keep it functioning; the continued costs of the dredging were not taken into account in the initial cost estimates.[369] Moreover, technological developments in the global shipbuilding made the canal "obsolete on delivery" since it could not accommodate larger oceangoing cargo vessels.[370]

Even as it became apparent that the MRGO was not economically or environmentally feasible, elite actors had little incentive to halt the project since the federal government was carrying the costs.[371] As revealed by Hurricane Katrina, by far the worst effects of the

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[368] Freudenberg et al., *Catastrophe in the Making,* 67-86.

[369] Ibid., 120.

[370] Ibid., 65-66.

[371] Ibid., 10. Moreover, historical evidences acknowledges that the proponents of the MRGO were aware of the importance of wetlands as storm surge buffers before implementing the project.

MRGO on the region was the destruction of the wetlands. The development of the project itself required removal of wetland habitats, but the canal also had no freshwater flow, allowing saltwater intrusion into interior wetlands. The increased salinity devastated the wetlands, killing marsh plant life. This generated a vicious cycle as marsh soil, no longer held in place by roots, filtered back to the canal waterways which necessitated more dredging and widening, increasing the harmful effects on wetlands.[372] As its moniker "hurricane highway" suggests, the MRGO also acted as a throughway for storm surge waters during Katrina, delivering floodwaters into the heart of the city. The USACE has denied the role the MRGO played in increasing storm surge waters, but independent scientific research has disputed those claims.[373] Due to its harmful environmental impact, the MRGO was closed in 2009, reducing the incidence of saltwater intrusion.[374]

Although ostensibly a natural disaster, observers and victims of Hurricane Katrina were reluctant to attribute the damage to natural processes. The post-Katrina landscape was filled with acrimonious debate about responsibility and blame, citing the role that human agency had played in the disaster.[375] Although it is now common to identify the role of human

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[372] Freudenberg et al., 120-121, 119. Certainly, other factors contributed to wetlands devastation, including oil exploration and development, draining wetlands for agricultural development, and the vast network of canals, levees, and dams, but none could match the impact of the MRGO. See also Shaffer et al., "The MRGO Navigation Project," 206-224 and Kousky and Zeckhauser, "JARing Actions that Fuel the Flood," 64.

[373] Freudenberg et al., *Catastrophe in the Making*, 112-113; Hassan S. Mashriqui et al., "Experimental Storm Surge Simulations for Hurricane Katrina," in *Coastal Environment and Water Quality,* ed. Y. Xu and V. Singh (Highlands Ranch, CO: Water Resources Publications, 2006), 481-490; Shaffer et al., "The MRGO Navigation Project," 206-224.

[374] Nicole T. Carter, *Mississippi River Gulf Outlet: Issues for Congress* (Washington, DC: Congressional Research Services, 2006) and Michael A. Poirrier, "Effects of Closure of the Mississippi River Gulf Outlet on Saltwater Intrusion and Bottom Water Hypoxia in Lake Pontchartrain," *Gulf and Caribbean Research* 25, no. 1 (2013): 105-109. The USACE is now involved in a multi-billion-dollar effort to restore the wetlands lost as a result of the MRGO.

[375] In writing about the acrimonious, finger-pointing climate following Katrina, Stallings claims that "Above all, the post-Katrina landscape was filled with finger-pointing politicians and pundits who *knew* [emphasis in the original] who was to blame for the catastrophe on the Gulf Coast, and they were sure it wasn't Mother Nature." Stallings, "Causality and 'Natural' Disasters," 223-227.

agency following disasters, this explanatory model gained particular attention in the mainstream media following Katrina.[376] Speaking in regards to investigations into the USACE-constructed levee system which indicated that at least some of the levees were not built to recommended specifications, a Louisiana state senator claimed that the negligence of man, not God, was responsible for Katrina.[377] Similarly, a survey of university students in Louisiana found that they associated Katrina with human or technological failure.[378]

The explanatory model adopted by many was also confirmed by later technical reports that found the federal hurricane protection systems to be inadequate even according to the USACE's own specifications. Team Louisiana, an independent review board commissioned by the Louisianan Department of Transportation and Development to investigate the levee failures, concluded that the levee system was not capable of protecting the city to the level mandated by Congress in the 1965 Flood Control Act and that it was constructed with faulty engineering practices. The independent review called the storm a "man-made catastrophe."[379]

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[376] Kevin Rosario, *The Culture of Calamity: Disaster and the Making of Modern America* (Chicago and London: University of Chicago Press, 2007), 211. A celebrated musician in New Orleans, Dr. John, also told the media that the city had not died a "natural death," instead claiming it was a "cold-blooded murder" caused by a man-made disaster.

[377] Peter Gosselin, "On Their Own in Battered New Orleans," in *On Risk and Disaster: Lessons from Hurricane Katrina*, ed. Ronald J. Daniels, Donald F. Kettl, and Howard Kunreuther (Philadelphia: University of Pennsylvania Press, 2006), 21.

[378] Duane A. Gill, Anthony E. Ladd, and John Marszalek, "College Students' Experiences with Hurricane Katrina: A Comparison Between Students from Mississippi State University and Three New Orleans Universities," *Journal of the Mississippi Academy of Sciences* 52, no. 4 (2007): 262-280.

[379] Congress passed the 1965 Flood Control Act legislation after Hurricane Betsy made landfall that year. The legislation required the USACE, in conjunction with the local Corps of Engineers' New Orleans District, to construct a Hurricane Protection System that protected the city from "the most severe meteorological conditions considered reasonably characteristic for that region." The models used to predict these conditions was obsolete even before construction of the levee system began but estimates of the expected more severe storms were not addressed in the USACE's specifications. Ivor Ll. Van Heerden, "The Failure of the New Orleans Levee System Following Hurricane Katrina and the Pathway Forward," *Public Administration Review* 67(2007): 24-35.

4.5.2   <u>Natech Disasters</u>

The intersection of technology, and natural processes has also contributed to explanatory models of disaster that attribute causality to human agency. In the past, disaster researchers separated disasters into distinct categories, such as distinguishing between natural and technical or man-made disasters. More recently, particularly as climate change processes are better understood, it is difficult to disentangle human impacts on the environment and natural processes, making the analytic distinction between categories increasingly baseless. Theoretically and scientifically, the relationship between humanity and nature has shifted as the former transforms the global environment in unprecedented ways. Some scientists refer to this distinct new era as the Anthropocene.[380]

The Anthropocene theorizes a new terrestrial epoch in which humans are a potent geologic force shaping the world. The elision between humans and nature is also apparent in a new designation for disasters, called "natech," which is a portmanteau meshing "natural" and "technological" describing their entanglement in disaster events.[381] The designation signals a recognition that the understanding of what is subject to human control has shifted alongside technological advancements which have tremendously expanded the

[380] Jianguo Liu et al., "Complexity of Coupled Human and Natural Systems," *Science* 317, no. 5844 (2007): 1513-1516; Paul J. Crutzen, "The 'Anthropocene'" in *Earth System Science in the Anthropocene: Emerging Issues and Problems* ed. Eckart Ehlers and Thomas Krafft (New York: Springer Berlin Heidelberg, 2006), 13-18. Ellis describes humans as having transformed most of the globe into "anthropogenic biomes," a process that began in earnest about a century ago but ongoing for around 8,000 years. See also Erle C. Ellis, "Anthropogenic Transformation of the Terrestrial Biosphere," *Philosophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences* 369, no. 1938 (2011): 1010-103 and Erle C., Ellis, Kees Klein Goldewijk, Stefan Siebert, Deborah Lightman, and Navin Ramankutty, "Anthropogenic Transformation of the Biomes, 1700 to 2000," *Global Ecology and Biogeography* 19, no. 5 (2010): 589-606

[381] The natech designation is attributed to Steven J. Picou, "Katrina as a 'Natech Disaster: Toxic Contamination and Long-Term Risks for Residents of New Orleans," J*ournal of Applied Social Science* 4, no. 3(2009): 39-55.

extent to which humans can intervene into nature. In turn, this expansion of the horizon of the possible has also generated new ideas about responsibility for when things go wrong.[382]

Natech disasters pair the effects of natural and technological disasters, compounding political consequences. The increase in technological disasters emerges from the impact of technology on the natural environment, which has increased the frequency and severity of storms, but also more proximately in that disasters themselves collide with technological systems as was the case in the Fukushima Daiichi meltdown.[383] It is more appropriate to analyze disasters on a spectrum of natural and technological, with some evidencing more characteristics on the poles of the spectrum than others.[384]

Since the 1940s, researchers have viewed natural disasters as acute events that destroy built and modified human environments. Technological disasters, or man-made crises involving some sort of toxic contamination, by contrast often leave the built environments intact but the dispersion of toxins can make affected areas dangerous or uninhabitable, such as the area surrounding Chernobyl. Since the disasters generally have a clearer "principle responsible party" than natural disasters that furnishes a route to the legal system. The damaging effects of the subsequent extended litigation process, compounded by the physical and mental stressors of toxic contamination, can linger in households for decades.[385] The incorporation of technological components into disasters attenuates the

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[382] Blocker and Sherkat, "In the Eyes of the Beholder," 153-166.

[383] NASA, "The Impact of Climate Change on Disasters," Earth Observatory, accessed March 15, 2017, https://earthobservatory.nasa.gov/Features/RisingCost/rising_cost5.php.The meltdown of the Fukushima Daiichi nuclear reactor was precipitated by a tsunami off the Japanese coast.

[384] Duane A. Gill, "Secondary Trauma or Secondary Disaster? Insights from Hurricane Katrina," *Sociological Spectrum* 27, no. 6(2007): 613-632.

[385] Steven J. Picou, "Katrina as a Natech Disaster: Toxic Contamination and Long-Term Risks for Residents of New Orleans," *Journal of Applied Social Science* 3, no. 2 (2009): 39-55 and Brian Mayer, Katrina Running, and Kelly

political repercussion of disasters by the transparent identification of anthropogenic causation, contributing to decreased trust in the government and institutions entrusted with oversight of the technology involved in the disaster.[386]

Hurricane Katrina is considered a natech disaster as the hurricane impacted industrial sites, leading to a secondary disaster as contaminants were released into the environment.[387] Although less widely treated in the media, the storm surge that flooded most of the city also indirectly released a "toxic gumbo." Damages to oil refineries resulted in the release of over eight million gallons of oil. The storm surge that swept through the city as the levees failed mixed with toxins from industrial and residential sites, leaving a toxic sediment spread over flooded regions. The dispersal of the sediment is cited as the most massive toxic contamination in U.S. history.[388] The government response to the disaster did not include remediation for these contaminants. The failed government response to Katrina contributed to lower levels of trust in government among affected residents, but the detrimental effects of the technological components of Katrina have also generated distrust in public institutions and damaged social relationships.[389]

Bergstrand, "Compensation and Community Corrosion: Perceived Inequalities, Social Comparisons, and Competition Following the Deepwater Horizon Oil Spill," *Sociological Forum*, vol. 30, no. 2 (2015): 369-390.

[386] The technological component of a disasters is attributed to both private and public actors. In the Deepwater Horizon Oil Spill, BP was identified as the principle responsible party. But, affected communities also held the federal government responsible as the institution primarily responsible for technological safety through its control the regulatory environment. Michael R. Cope et al., "It's Not Whether You Win or Lose, It's How You Place the Blame: Shifting Perceptions of Recreancy in the Context of the Deepwater Horizon Oil Spill," *Rural Sociology* (2016): 295-315.

[387] Gill, "Secondary Trauma or Secondary Disaster?," 613-632.

[388] Picou, "Katrina as a Natech Disaster," 39-55.

[389] Julia A. Flagg, "The Social Consequences of a Natural/Technological Disaster: Evidence from Louisiana and Mississippi," *Local Environment* (2016): 1-15; Gill, "Secondary Trauma or Secondary Disaster?"; DeMond Shondell Miller, "Public Trust in the Aftermath of Natural and Na-technological Disasters: Hurricane Katrina and the Fukushima Daiichi Nuclear Incident," *International Journal of Sociology and Social Policy* 36, no. 5/6 (2016): 410-431; Kristina M. Cordasco et al., "'They Blew the Levee': Distrust of Authorities Among Hurricane Katrina Evacuees," *Journal of Health Care for the Poor and Underserved* 18, no. 2 (2007): 277-282.

Several attributes particular to technological disasters compounds issues of trust in government institutions and epistemic communities ostensibly responsible for overseeing the technology. Technological disasters exhibit qualities that cultivate uncertainty which can result in long-term negative effects on communities. Both the role of human agency and the insidious of invisible toxicity generate atmospheres of uncertainty. Erikson calls these disasters and crises, events peculiar to modern society, as a "new species of trouble." In part, the distinction rests in the role of human artifice in constructing, operating, and administering the technological systems which fail. Thus, the disasters and crises precipitated by technological failure are more likely to be "seen as having produced [sic] by human hands."[390]

Recreancy is associated with all of the qualities apparent in the technological components in disasters. The concept explains the ambiguous responsibility in many technological disasters due to the bureaucratic organization that administers complex technological systems.[391] As a result, technological disasters are more likely to result from diffuse institutional failures. Within impacted communities, this contributes to the perception that an expert, specialized organizations, or public institution have significantly failed to fulfill their expected functions – a breach in trust. During the Exxon Valdez oil spill, as the corporation failed to demonstrate any effective planning or capacity for cleaning up the oil spill, the perception of simple incompetence shifted to one of willful inaction. As the "clean-up" progressed, it was clear that Exxon had no contingency plans

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[390] Kai T. Erikson, *A New Species of Trouble: The Human Experience of Modern Disasters* (New York: W.W. Norton & Co., 1994), 22.

[391] William R. Freudenberg, "Risk and Recreancy: Weber, the Division of Labor, and the Rationality of Risk Perceptions," *Social Forces* 71, no. 4 (1993): 909-932.

or even equipment to deal with an oil spill of this magnitude despite assuring the local community when the pipeline was first built that advanced monitoring technology would ensure that such as spill would never occur.[392] The perceptual shift altered the residents' strategies for recovering from the spill. Residents undertook extensive litigation efforts against Exxon that did not end until it reached the Supreme Court. Decades after spill, affected residents evidenced strong distrust in government and public institutions to fulfill expected obligations.[393]

4.6   CONCLUSION

More than ever, citizens in developed countries expect their governments to control, prevent, or mitigate the disordered effects of disasters. This philosophical production of risk occurred as the basis of political authority transitioned away from divine or traditional means towards the social contract based on the consent of the governed. Among the first social contract theorists, Hobbes grounded consent for each person to lay down their rights in the state of nature in the interest of self-preservation. The sovereign guarding the compact was tasked with protecting his citizens from unwarranted death. Thus, physical security, and the order necessary to provision that security, is an elementary constituent of modern politics.

The increased responsibilities and expectations of the state also coincided with shifts in the explanatory models that communities used to attribute causality to the disasters. In the medieval world, the most common interpretation was disasters as divine punishment.

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[392] Liesel Ashley Ritchie, Duane A. Gill, and Courtney N. Farnham, "Recreancy Revisited: Beliefs about Institutional Failure Following the Exxon Valdez Oil Spill," *Society and Natural Resources* 26 no. 6(2013): 655-671.

[393] Liesel Ashley Ritchie et al., "Recreancy Revisited: Beliefs about Institutional Failure Following the Exxon Valdez Oil Spill*," Society & Natural Resources* 26, no. 6 (2013): 655-671.

This model recommends remedies that fall within the priestly class as the prevention of further mischief can only be assured by restoring the fractured relationship between man and God. When more worldly remedies did occur, it was through the private or civic sphere. As advances in science offered alternative explanations through natural processes, human intervention was possible in other ways. After the Lisbon earthquake, political institutions increasingly administered relief in the immediate aftermath of the disaster and in reconstruction efforts intended to help communities recover and fortify them against future ills.

Today, the explanatory model of disaster has undergone further shifts. It is increasingly challenging to disentangle human activity from natural processes. In the Anthropocene epoch, it is difficult to attribute the colossal damage of Hurricane Katrina to wholly natural processes. The lackluster government response, the failed levees, and development policies that decimated the Mississippi Delta's buffer against storm surge all contributed to the storms damaging effects, leading some to describe it as a "man-made catastrophe." Disaster research contributes to this field of knowledge through vulnerability analysis, which views disasters as the intersection between hazards and more or less vulnerable communities. A community's vulnerability is determined by proximate events, but also long term political, economic, and social processes that disadvantage some in terms of hazardous geography or household assets needed to survive and recover from disasters.

CHAPTER 5.

CONCLUSION

5. CONCLUSION

The failed government responses to recent severe disasters, including Hurricane Katrina, have led to decreased trust in public institutions tasked with preventing, mitigating, and recovering from the effects of disaster. The failures have had political repercussions, leading to the dismissal of federal officials, decreased approval ratings for the incumbent president, and failed re-elections bids for local and state government officials. More than ever, governments in the developed world are tasked with emergency management for a wide range of disaster and catastrophic events. The puzzle treated in this dissertation is the emergence of the public expectation that the government has an obligation to prevent and mitigate the disordered effects of disaster. I refer to this expectation as the political interpretation of disaster. In answer to this puzzle, I look to early modern philosophers Hobbes and Machiavelli to explicate the philosophical production of risk and responsibility.

Early modern theory is a crucial pathway to gaining insights into modern interpretations of disaster. The theory is at the cusp of two worlds, the ancient and the modern; comprehending where we currently find ourselves requires examining where we have been in the past. A careful reading of Machiavelli and Hobbes helps to articulate the reconfiguration of man's relationship with nature. Humanity's task was no longer to live in accordance with a harmonious nature, but to transform it to better suit our bodily interests. If humans are capable of transforming nature, then we are also capable of eliminating perennial sources of our misfortune, including disaster. Philosophy transitioned from the cultivation of the soul among the few to the provision of comfortable self-preservation for all people. It is a potent statement about the capacity of men and women to intervene in the natural world. This newfound potency is also found in novel

arrangements of political authority based on the consent of the governed in the social contract. If citizens' duty was obedience, then the sovereign's responsibility was the welfare of its citizens.

The philosophical production of risk in the modern era emerged from the series of developments described above. As humanity's technological capacity to effect changes in the natural world has increased, expectations have shifted about what is in the realm of the possible, including the mitigation of the disordered effects of disasters. This philosophical production of risk has led to changes in how people explain disaster and the remedies necessary for mitigating its effects. I present four explanatory models of disaster that assign causality of disasters to the will of a god, to random chance or accident, to nature, and finally to the work of man. Earlier societies, operating under different explanatory models, believed misfortune had moral causation in that its victims had transgressed against the dictates of God. That is, disasters were not political problems. Similarly, treatments of misfortune as chance or accident admit only prudence as remedy, not the bureaucratic and technological responses common today. In the twenty-first century, the last explanatory model is gaining traction as human intervention into nature is making it difficult to disentangle human activity from natural processes, particularly as regards climate change. Nature is not entirely dismissed as causal agent, but discerning natural processes wholly independent from human activities is increasingly more difficult.

Disasters are also political problems because they interrupt or suspend order, predictability, and certainty that are the cornerstones of the smooth functioning of modern society. One of the primary responsibilities of modern political institutions is the imposition, and maintenance, of order on a disordered world. Thus, disasters serve as an important assessment of the extent of human control over the sources of misfortune and suffering. When that control fails, disasters expose the fragility of modern society, including our crippling dependence on flawed complex

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systems, patterns of inequality that expose many to greater harm, and the unequal distribution of power that allow the powerful few to pass on these costs to the many who often have limited means to hold the powerful accountable. The more complex and centralized the routines, the more vulnerable they are to disorder when confronted with a crisis event such as a disaster. Ironically, the very systems that we rely on to impose predictability and control are also significant weaknesses, strong indicators of the sort of hubris and pride that Hobbes sought to subdue to ensure stability and order.

The disordering effects of disaster are apparent in their impact on enduring patterns of activity that comprise everyday life. These patterns manifest in a blend of routines carried out in regular intervals, whether hourly, daily, or weekly. The certainty that the routines provide is bolstered by the belief that the routines are predictable and stable, so taken-for-granted that they are invisible. This belief relies on trust in government, public, and private institutions and the individuals working within them that are tasked with controlling risk for the rest of society. The control of risk is especially prevalent in modern states where these institutions have significant sway over the functioning of our everyday lives. When these entities fail to properly control risk on our behalf, as is the case in highly disordered disaster or technological failures, trust and legitimacy is eroded.

The erosion of trust and decrease in the perception of institutional legitimacy comes to the forefront when the disordered effects of disaster are not appropriately managed by responsible political authorities. The politics of disaster emerge in the management of effects but also the burden of explanation. In the aftermath of a disaster, society demands explanations from public officials regarding the causes of the disordered effects. Explanations, at least by political authorities, are not owed under different explanatory models. If disasters are outside human control, under the purview of God, or mere chance, then political accountability does not take on

the same importance. When the explanatory model of disaster, however, perceives causality in nature and man, political accountability is crucial. Where human intervention is possible, obligation and blame are also possible This accountability opens up opportunities for unrest and even redistributions of power when disasters do occur.

Machiavelli contributed to the philosophical production of risk in several ways. He insists that men can have control over things or happenings in the external world previously thought to be under the purview of God, nature, or chance. Man's perennial enemy, he argues, is fortune that either hinders or facilitates individuals' success in securing their own interests. Fortune also encapsulates human uncertainty, or those things that we have difficulty explaining or predicting. He recognizes that certain individuals, blessed with an innate capacity for greatness, and aided by his own teachings, can prevail against the unpredictability of fortune to shape the external world in favor of their own interests. This prince, as the great are called, does not rely on God's favor, or the favor of fortune, or even the aid of compatriots, but on the potency of his own arms. The prince, in other words, is capable of conquering an indifferent or capricious nature, bending it to suit his own will. The prince's agency goes beyond the application of philosophical prudence to forestall ill fortune. Prudence is acquired by long experience where one can foresee, and perhaps prevent, future events by applying lessons from similar past experiences, but the variability and unpredictability of Machiavelli's cosmos renders prudence impotent.

Machiavelli's audacious proclamations, while discussed privately, had no public hearing before the Florentine wrote his provocative treatise. Prevailing over fortune is not possible under conventional morality. Since the world is indifferent to our needs, and plagued by constant variability, moral actions cannot always produce optimal outcomes. If one cannot consistently act morally at all times, however, one must appear to act morally at all times. The new prince is a

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selfish individual with a large appetite that obliges him to impose his interests through politics, to realize new modes and orders that mirror those interests. Mastering his world, however, requires a new virtue. The new virtue that Machiavelli proposes is consistent with his conception of man as fundamentally selfish; thus, being virtuous means being excellent at pursuing selfish interests. The virtuous prince, a master at reading the variability of nature through careful historical study, knows when to be kind and when to be cruel while always maintaining the appearance of justice. Machiavelli's lessons introduced a new sort of virtue, one that unashamedly advocated the for the merits of selfishness, particularly in politics.

Machiavelli made considerable room for the intervention of man in overcoming misfortune, pushing aside the providential God and chance. In doing so, he expanded the realm of the possible in our imagination, including the possibility of interdicting the disordered effect of disaster. His insistence on the potency of human agency over fortune is the hallmark of modernity. Fate is not to be accepted, or railed against, but actively altered to suit our own needs. His stance is apparent in modern political interpretations of disaster. It supposes that human action is capable of intervening in disaster and that politics is the most appropriate realm for realizing these expansive interests. Machiavelli's philosophy is not oriented towards the cultivation of happiness through the contemplation of virtue, but the sort of happiness achievable by securing our bodily interests. Philosophy, or science as it would later be called, is now a pursuit of useful things, not truthful things. Thus, the remedy for misfortune is no longer philosophy as the medicine of the soul that quiets our anxiety, but philosophy as the promise of predictability and control over nature.

Whereas Machiavelli intended his philosophy for the few virtuous princes capable of great deeds and securing glory for themselves, Hobbes adapts the philosophy of power and utility in service of the many. The first systematic social contract theorist, Hobbes assigns duties and

obligations to the sovereign and those joined in political association. If men and women lay down their right to self-preservation in the interest of peaceable congregation, then the sovereign oversees the compact, ensuring the physical security of all citizens. It is in this regard that Hobbes establishes the convention of sovereign responsibility, recognizable today in the disaster welfare state. Like Machiavelli, Hobbes describes man as a fundamentally selfish being, but one capable of overcoming this barrier to peaceable political association due to man's innate capacity for discerning cause and effect. When we can understand causal relationships, we have control over future effects or outcomes through manipulation of causes. Hobbes describes this capacity as power and his philosophy is meant to extend that power over the indifferent, disordered world for the universal benefit of humanity.

Hobbes argues that human effort can determine outcomes previously ascribed to chance or accident, a providential God, or nature. Philosophy conquers unknowability or uncertainty, including uncertainty regarding the source of suffering and misfortune inherent in the brutal state of nature. Taming the sources of misfortune, particularly the vainglory of the proud, is possible through human artifice. When people covenant with one another in the social contract, human artifice, exercised through the will, creates the artificial person of the sovereign who serves as the mortal god. The mortal god, like the figure of the biblical Leviathan, is capable of taming the proud that are the sources of disorder. As the ultimate arbiter of political authority, the sovereign is responsible for the physical security of its citizens by punishing those who transgress against the laws established in the covenant. Thus, the uncertainty and terror in the state of nature is replaced by predictable laws enforced by the sovereign. Fear is not absent, but the source of ultimate fortune is known and the appropriate actions to avoid it. The modern state evidences similar

responsibilities vis-à-vis its citizens. Order is imposed, and maintained, through political institutions against a disordered nature, including against the effects of disaster.

The political interpretation of disaster is based on increasing expectations of the order and safety provisioned by the state, but also by changes in the explanatory models that people use to attribute causality in disaster. Whereas the explanatory models used most often today identify man and nature as the primary causal agents, a review of the experience of disaster in the medieval world provides a much different model. The most common interpretation of disaster then was as a manifestation of divine punishment. The remedies associated with this interpretation are very different from those proposed today. When the divine is invoked as the source of misfortune, the remedies for suffering fall to the priestly class that can help communities restore their relationship with the divine. Moreover, when more practical measures were undertaken during this period, it was through private or civic actors.

The Lisbon earthquake serves as a waypoint between the early modern and contemporary interpretations and experiences of disaster. The affected communities and international observers debated the ultimate cause of the disaster. Some cited God, others nature, and yet others identified man as the source of the misfortune. Political authorities overseeing the emergency response and recovery after the earthquake engaged in a fierce interpretative battle with the Church. Pombal encouraged the residents of Lisbon, and observers around the world, to seek out the causes of the earthquake in natural processes. Church authorities, meanwhile, admonished residents to forego rescue and restoration efforts in favor of prayer, penitence, and meditation. Thus, the authorities competed not only over the interpretation of the earthquake, but also the labor necessary to remedy the disordered effects of the disaster. Pombal prevailed, executing his Jesuit rival, firmly securing

the responsibility for the emergency response and subsequent reconstruction with the political institutions of the state.

In his musings on the meaning of the Lisbon earthquake, Rousseau was among the first to identify man as the source of misfortune and suffering, even in the face of seemingly inexorable forces of nature. Laypersons and epistemic communities are increasingly adopting Rousseau's social scientific approach to disasters. Among disaster researchers, human agency in disasters is examined in vulnerability analysis. The field views disasters as the intersection between natural hazards and communities that are more or less able to withstand the disordered effects of the disaster. Although many continue to investigate hazards through the physical sciences, social scientists have begun to look at how the effects of disaster are proportionate not to the hazard itself, but to the long-term political, economic, and social processes that disadvantage some individuals or communities that subsequently experience more severe effects from disasters.

When examined through the lens of vulnerability analysis, Hurricane Katrina appears more a man-made then a natural phenomenon. Political policies relegated the less prosperous to hazardous low-ground in New Orleans. African-Americans were heavily overrepresented in these hazardous areas and not surprisingly suffered the most severe effects of Katrina. Development policies, intended to spur economic growth, also contributed to the city's vulnerability. The environmental damage to the region's wetlands destroyed the area's natural buffers against storm surge waters. Moreover, the Hurricane Protection System, intended to protect the city from strong storms, was found to be poorly designed and built, contributing to the storm's severe effects.

The perception of human causation in disasters in Hurricane Katrina, and many others like it, compounds the political repercussions of disaster. The identification of human causation in a

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disaster increases the likelihood of decreased trust in government institutions, the expertise of epistemic communities, and private corporations. Where a principle responsible party is identifiable, such as the USACE or BP after the Deepwater Horizon oil spill, legal proceedings against them are likely. The proceedings are inherently disadvantaged as victims battle entrenched interests and powerful corporate or government resources. As a result, litigation is especially damaging to the individuals and communities involved as they face years of physical and mental stress. As human activity continues to alter the natural world, most often in ways that are threatening to human well-being, the perception of human causation in disasters is likely to increase. The rise of natech disasters, or disasters that combine natural processes and technological failures, is an indication this trend is already occurring.

The impulse in modernity to master or remake nature to fit our interests, so optimistically proffered by Machiavelli and Hobbes, paradoxically poses the greatest threat to our continued survival. While humans have certainly remade nature in many ways, giving rise to the Anthropocene, the benefits of this transformation are unevenly distributed. The dependence of the global economy on relentless growth is synonymous with the harmful effects of economic development on vulnerable populations. The costs are increasingly borne by segments of the population that often benefit from it the least. This drift is apparent in the case of Hurricane Katrina where the costs of economic development weighed most heavily on the disadvantaged in the Mississippi Delta Region who lost their lives, their communities, their homes, and their livelihoods during the storm. More broadly, developing societies face all the same dangers as the developed world from climate change, but have accrued few of the benefits of the petroleum-fueled global economy.

Vulnerable individuals and communities exposed to such risks have few mechanisms to hold responsible parties accountable. Moreover, as is the case with the contested placement of the Dakota Access Pipeline near the Standing Rock reservation, too often communities have limited efficacy in determining the level of risk their community is willing to bear. Corporate and government interests have prevailed over the tribe's concerns of the integrity of their water supply. Indeed, it is not surprising that the recent glut of technological failures in the petroleum industry have led to decreased trust in the assurances of technological fail-safes to prevent catastrophic failures. The increasing rise of natech disasters and disasters involving overt technological failures contribute to declining trust in political institutions, regulatory bodies, and private corporations that fail to protect those most at risk as the purported mastery of nature gives way to incompetence, ineptness, and ignorance of the long-term consequence of human activity.

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