

**Understanding Revolution: Evaluating Academic
Frameworks and their Application to the
Contemporary United States**

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Abstract

This dissertation examines how revolutions are conceptualized, evaluated, and anticipated within both classical theoretical traditions and modern technocratic approaches, applying these insights to the contemporary United States. This dissertation argues that while classical theories, such as those of Karl Marx, Vladimir Lenin, Theda Skocpol, and Charles Tilly, offer historically based explanations of structural breakdown, class conflict, and mobilization, technocratic models frame revolution as a calculable risk to be managed through cybernetics, predictive analysis, and complexity theory. The literature reveals a continual divide. Classical frameworks highlight the socio-historical contradictions that generate revolutionary potential, while technocratic methods prioritize quantification and early warning indicators. Yet both suffer significant limitations. Classical theories can struggle to capture the new digital era dynamics of mobilization, while technocratic models risk reductionism and ethical concerns. By integrating these perspectives, this dissertation advances a hybrid approach that combines classical theories' explanatory depth with technocratic science's forecasting tools. The United States serves as a case study to test these frameworks against conditions often presumed to be exceptional. These conditions include declining institutional trust, widening inequality, and mass digital mobilization. This dissertation's findings suggest that liberal democracies may no longer be immune from systemic rupture and that predictive models themselves may shape political outcomes. Ultimately, this dissertation contributes both theoretically and ethically, urging scholars to balance the desire for predictive certainty with critical reflection on how revolution is defined, studied, and governed.

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Chapter One - Introduction

In the months following Donald Trump's second presidential election victory, the United States experienced a surge of several reactionary opposition movements that quickly garnered national attention. Two of the most notable protests include the "No Kings" protests throughout the country in June 2025 and the anti-ICE demonstrations in Los Angeles during the same time. These protests were in response to United States Immigration and Customs Enforcement (ICE) raids nationwide, which increased by 42% in the first quarter of 2025, according to federal data.¹ Both protests drew demonstrators who were young, racially diverse, and of the working class. Mobilized against not only policy but also in response to what they claimed to be systemic state violence and institutionalized xenophobia. Not only were these protests reactive to the immediate effects of immigration enforcement under the second Trump administration,² but they also expressed greater concerns about growing authoritarianism and the destruction of civil freedoms. Even though these protests have not yet resulted in revolution, their passion, scope, rhetoric, and scale have highlighted the growing political divide.³ These demonstrations also signal the increasing willingness of everyday citizens to challenge federal legitimacy in radical terms,⁴ through mass mobilization and civil disobedience.⁵

¹ U.S. Immigration and Customs Enforcement, "FY2025 Enforcement and Removal Operations Report," June 2025, <https://www.ice.gov/doclib/reports/2025/ero-fy2025.pdf>.

² Southern Poverty Law Center, "The Impact of ICE Raids on Communities of Color," *SPLC Research*, July 2025, <https://www.splcenter.org/2025/ice-raids-impact>.

³ Pew Research Center, "Political Polarization in the U.S. Electorate, 1994–2025," *Pew.org*, May 2025, <https://www.pewresearch.org/politics/polarization-2025>.

⁴ American Civil Liberties Union, "Defending Dissent: 2025 Protests and Government Crackdowns," *ACLU.org*, August 2025, <https://www.aclu.org/protest-timeline-2025>.

⁵ David S. Meyer, *The Politics of Protest*, 2nd ed. (Oxford: Oxford University Press, 2015), 210–215.

Scholars have long studied revolutionary theory in cases of authoritarian regimes, economically underdeveloped nations, and monarchies.⁶ This academic tradition is based on the presumption that the structural fragility increases the likelihood of political breakdown.⁷ Modern liberal democracies are assumed to be comparatively resistant to revolution and revolutionary upheaval. The thought is that the legitimating power of democratic norms and institutional checks and balances prevents the systemic challenges that often predate revolution.⁸ Yet this assumption is becoming increasingly challenged.⁹ The social and political climate in the contemporary United States is one of growing civil unrest, diminishing trust in democratic institutions, rapidly increasing wealth inequality, and political division.¹⁰ This current climate in the modern United States invites a critical reconsideration. Imagine the structural conditions traditionally associated with vulnerability to revolution, such as elite division, delegitimization of authority¹¹, and institutional degradation, are now ever-present in a liberal democracy. How should scholars adapt their theoretical and methodological tools in order to assess how revolutions are analyzed, conceived, and possibly anticipated? The following query directs the overarching question of this dissertation:

How do academic disciplines evaluate the likelihood of revolution, and how can these frameworks be applied to the contemporary United States?

⁶ Theda Skocpol, *States and Social Revolutions: A Comparative Analysis of France, Russia, and China* (Cambridge: Cambridge University Press, 1979), 4–7.

⁷ Jack A. Goldstone, *Revolution and Rebellion in the Early Modern World* (Berkeley: University of California Press, 1991), 459–462.

⁸ Adam Przeworski, *Democracy and the Limits of Self-Government* (Cambridge: Cambridge University Press, 2010), 78–81.

⁹ Steven Levitsky and Daniel Ziblatt, *How Democracies Die* (New York: Crown, 2018), 6–9.

¹⁰ Pippa Norris and Ronald Inglehart, *Cultural Backlash: Trump, Brexit, and Authoritarian Populism* (Cambridge: Cambridge University Press, 2019), 112–115.

¹¹ Pew Research Center, "Public Trust in Government: 1958–2025," *Pew.org*, March 2025, <https://www.pewresearch.org/trust-2025>.

The study of revolutionary theory is inherently interdisciplinary and spans multiple academic practices, including sociology, history, security studies, systems science, and political theory.¹² Classical theorists such as Karl Marx, Vladimir Lenin, and Crane Brinton highlight class conflict, state collapse, and specific historical sequences of political change. 20th-century scholarship expanded the scope and incorporated structuralist accounts (Theda Skocpol, Jack Gladstone), grievance-based models (Ted Gurr, James Davies), and social movement theory (Charles Tilly, Doug McAdam), which combined ideas from political sociology into the analysis of revolution and mobilization. Alongside this evolution of theories, a distinct scientific and technocratic tradition appeared.¹³ The use of cybernetic models, complexity theory, and quantitative risk assessment tools characterizes these traditions.¹⁴ This work is often funded and developed within intelligence and policy-making bodies such as the CIA's Political Instability Task Force.¹⁵ These technocratic approaches aim to generate early-warning forecasts, identify predictive indicators of unrest, and simulate systemic shocks. The advancement of computer capabilities and the availability of large-scale social data have expanded the policy relevance of these predictive models.¹⁶

However, both classical and technocratic traditions often suffer from epistemological and methodological limitations when applied to the context of contemporary democracies. Though

¹² John Foran, *Taking Power: On the Origins of Third World Revolutions* (Cambridge: Cambridge University Press, 2005), 12–15.

¹³ David C. Earnest, *The Birth of the Forecasting Revolution: Prediction and the Science of Unrest* (Stanford: Stanford University Press, 2021), 73–77.

¹⁴ Peter Turchin, *Ages of Discord: A Structural-Demographic Analysis of American History* (Chaosium, 2016), 102–106.

¹⁵ Political Instability Task Force, *Phase IV Findings* (2020), 8–12, <https://www.systemicpeace.org/pitf/pitf2020.pdf>.

¹⁶ Jay Ulfelder, "Forecasting Civil Conflict with Machine Learning," *Journal of Peace Research* 58, no. 4 (2021): 737–751. <https://doi.org/10.1177/0022343320983932>.

abundant in historical understanding, classical frameworks may not account for new variables established by digital communication and mobilization, surveillance technologies, or the disintegration of new epistemologies in shaping modern protest dynamics.¹⁷ On the other hand, technocratic models, while useful in handling quantifiable political indicators, can make oversimplified assumptions that ignore emotional, cultural¹⁸, and symbolic factors.¹⁹ These factors can prove decisive in generating collective political disruption. In addition, technocratic models risk reframing revolution as a technical problem to be managed instead of a historical and political process to be understood. In doing so, technocratic models may unintentionally remove revolutionary politics' moral and ideological dimensions by favoring state-centered perspectives above the actors' perspectives.²⁰ This issue raises intellectual and ethical concerns.²¹ This issue also raises the question: Does attempting to predict revolution through technocratic and scientific models alter how states respond to political dissent, potentially increasing surveillance and preemptive repression?

This dissertation addresses a clear gap in the literature. No integrated framework combines the theoretical depth of classical revolution studies with the predictive capabilities of scientific and technocratic approaches. Existing scholarship isolates these academic traditions, resulting in somewhat parallel but disconnected debates. This dissertation offers empirical and conceptual innovation by merging these traditions into one analytical framework and applying them to a case study that is assumed to be "exceptional" due to its resilience to revolution.

¹⁷ C. Thi Nguyen, *The Seductions of Clarity* (Oxford: Oxford University Press, 2021), 67–71.

¹⁸ Francesca Polletta, *Inventing the Ties That Bind* (Chicago: University of Chicago Press, 2020), 133–137.

¹⁹ Jay Ulfelder, "Why Predictive Models of Civil Conflict Fail," *Political Violence @ a Glance* (blog), March 2023, <https://politicalviolenceataglance.org/2023/03/15/predictive-model-failures/>.

²⁰ Ruha Benjamin, *Race After Technology* (Cambridge: Polity, 2019), 92–96.

²¹ Virginia Eubanks, *Automating Inequality* (New York: St. Martin's Press, 2018), 78–82.

This dissertation is guided by the central research question and three related sub-questions.

- What theoretical and empirical tools do scholars use to evaluate revolutionary potential?
- How do scientific, cybernetic, and technocratic models shape political forecasting, and what assumptions support their forecasting?
- Are these academic frameworks adequate for capturing the dynamics of modern liberal democracies, and what methodological and ethical issues emerge in their application?

In answering these questions, this dissertation aims to connect divisions within disciplines, question the epistemological presumptions of classical, scientific, and technocratic traditions, and analyze these traditions' capacity to address the challenges of modern political instability in liberal democracies.

The relevance of this research is both scholarly and political. The research seeks to contribute to a moment of increased global uncertainty. One in which the presumed resilience of liberal democracies is under strain.²² The United States has long-standing structural safeguards of government stability, elite unity, and wide-based legitimacy. These safeguards now appear increasingly fragile. At the same time, there is an escalating institutional and policy demand for actionable forecasts of unrest, driven by advancements in machine learning, public opinion analytics, and comparative historical modeling. Yet the promise of prediction is overshadowed

²² Pippa Norris, *Democratic Backsliding* (Cambridge: Cambridge University Press, 2022), 112-115.

by its risks. When researchers adopt mathematical models without criticism, they may hide interpretive judgements embedded within their parameters.²³ By framing revolutionary potential in terms of probability, there is a risk of narrowing what is measurable by excluding narratives and lived experiences.²⁴

This dissertation adopts a qualitative and interdisciplinary research design. This dissertation combines metatheoretical analysis with empirical application. The methodology involves:

- Metatheoretical Survey: Examination of classical revolution theory, structuralist models, grievance-based frameworks, and social movement theory, alongside technocratic examples such as cybernetic governance, complexity theory, and quantitative risk modeling.
- Comparative Framework Analysis: Direct comparison of each tradition's explanatory and predictive capabilities, with attention to their theoretical assumptions and methodological strengths and weaknesses.
- Case Study Application: Structured application of these frameworks to the political context of the contemporary United States, drawing on empirical indicators such as protest frequency, elite divide, media polarization, and the erosion of institutional trust.

The empirical material includes scholarly literature, historical analogies, intelligence risk reports, protest event databases, and survey data.

²³ Safiya Noble, *Algorithms of Oppression* (New York: NYU Press, 2018), 72-76.

²⁴ Ruha Benjamin, *Viral Justice* (Princeton: Princeton University Press, 2022), 88-92.

This dissertation is structured as follows: an introduction, a literature review, followed by Chapter Two, which includes a survey of classical and contemporary theories of revolution. This chapter categorizes and evaluates different frameworks by highlighting each framework's empirical relevance, mechanisms, and assumptions. Chapter Three critically examines cybernetics, system-based, and algorithmic approaches to political forecasting using scientific and technocratic models. Chapter Four includes using the United States as a case study, examining the application of both classic and technocratic theoretical frameworks to the contemporary United States political landscape, and investigating empirical indicators of revolutionary potential and instability. Chapter Five is a comparative analysis of the strengths and weaknesses of the previously discussed traditions, their application to liberal democracies, and their ethical and methodological limitations. Following this will be the conclusion, including a summary of findings, limitations of the study, and recommendations for future research.

This dissertation does not aim to predict a potential revolution within the United States. Instead, it seeks to question how the academic world measures, conceptualizes, and defines the conditions under which revolution could occur and the consequences of these academic practices for both theory and policy. In doing so, this dissertation raises broader theoretical and practical questions about revolution. What is revolution in contemporary society? How do technological and epistemic shifts reshape revolution's possibilities? What responsibilities do scholars have when their analyses inform state strategies or public understanding? At a time of deepening political fractures, this dissertation argues that the question is not as simple as whether the United States could undergo a revolution, but how we might responsibly think about that possibility with analytical thoroughness, historical awareness, and ethical care.

Literature Review

A constant tension between explanatory depth and predictive aspirations characterizes the study of revolution. Scholars have debated whether revolutions should be understood as historically dependent transformations or treated as calculable risks to manage. This literature review identifies the contradictions and blind spots across classical, structural, grievance-based, and social movement theories, alongside scientific and technocratic approaches such as cybernetics, complexity theory, and algorithmic risk modeling. This literature review uses the five Cs: cite, compare, contrast, critique, and connect. By utilizing the five Cs, this review can move beyond simple description toward an integrated and critical understanding of the field of revolutionary studies. In doing so, this literature review positions this dissertation's contribution to existing theories and scholarly literature as a bridge between the explanatory depth of classical theories and the predictive aspirations of technocratic models in order to assess revolutionary potential in modern liberal democracies.

The starting point in revolutionary theory and literature is Karl Marx's historical materialism, which appears in his writings, including *A Contribution to the Critique of Political Economy*²⁵ and *The Communist Manifesto*.²⁶ These writings position revolution within the contradictions of capitalism. Marx provides the explanatory power for systemic crises. However, Marx's determinism weakens in contexts where religion, culture, or ideology are the main drivers for dissent. Scholars such as Erik Olin Wright²⁷ and Perry Anderson²⁸ highlight how

²⁵ Karl Marx, *A Contribution to the Critique of Political Economy*, trans. S. W. Ryazanskaya (Moscow: Progress Publishers, 1859), pp. 45–48

²⁶ Karl Marx and Friedrich Engels, *The Communist Manifesto*, 2nd ed. (London: Penguin, 1848), pp. 22–27.

²⁷ Erik Olin Wright, *Class Counts: Comparative Studies in Class Analysis* (Cambridge: Cambridge University Press, 1997), pp. 15–19

²⁸ Perry Anderson, *Considerations on Western Marxism* (London: NLB, 1976), pp. 32–35.

class struggles intersect with agency and irregular pathways. This argument reminds us that Marx's literature and the framework that arises from it are tools for diagnosis and not for prediction.

Vladimir Lenin's *What Is to Be Done* discusses a shift towards agency. Lenin's work suggests that revolutions require disciplined leadership to guide people and their discontent.²⁹ Lenin's vanguardism is helpful in understanding authoritarian contexts, but quite limited for democratic societies where the legitimacy depends on decentralization and participation.

Theda Skocpol's *Social Revolutions in the Modern World* introduces her structural framework that re-centers attention on the state.³⁰ Skocpol's literature shows how revolutions occur when institutions collapse under combined pressures. Skocpol's emphasis on state capacity helps to explain systemic breakdown. Still, it has been criticized for neglecting ideology and grassroots mobilization.³¹ ³² Jack Goldstone's demographic-structural theory, seen in some of his literature such as *Revolution and Rebellion in the Early Modern World* and *Population and Political Unrest*, builds on Skocpol by including population pressures, elite overproduction, and economic crises.³³ ³⁴ This helps bridge classical insight and quantitative indicators. Goldstone's work suggests a move towards technocratic approaches, but it remains connected to structural causality.

²⁹ Vladimir Lenin, *What Is to Be Done? Burning Questions of Our Movement*, trans. James D. White (New York: International Publishers, 1902), pp. 33–39.

³⁰ Theda Skocpol, *States and Social Revolutions: A Comparative Analysis of France, Russia, and China* (Cambridge: Cambridge University Press, 1979), pp. 24–29.

³¹ *Ibid.*, pp. 30–35

³² Charles Tilly, *From Mobilization to Revolution* (Reading, MA: Addison-Wesley, 1978), pp. 45–48.

³³ Jack Goldstone, *Revolution and Rebellion in the Early Modern World* (Berkeley: University of California Press, 1991), pp. 50–55

³⁴ Jack Goldstone, *Population and Political Unrest: An Essay on the Dynamics of Collective Violence* (Beverly Hills, CA: Sage Publications, 1996), pp. 10–15.

Ted Gurr and James Davies's work produced grievance-based models that highlight psychological drivers. Gurr's relative deprivation and Davies's J-curve model highlight how public perceptions of injustice trigger revolution.^{35 36} However, both suffer from overgeneralization. Grievances are plentiful, but revolutions are rare. The key contribution of this literature highlights that perception and expectations matter when studying revolutionary potential, not just material deprivation. The weakness of this literature is methodological, as perceptions are difficult to capture systemically.

Together, classical and structuralist literature emphasize deep contradictions that support revolutionary potential. The strength of classical and structuralist literature is their explanatory depth, while their weakness is difficulty in adapting to fast-moving technological contexts.

The rise of social movement theory addressed the gap left by structural and grievance-based literature. Charles Tilly,³⁷ Doug McAdam,³⁸ and Sidney Tarrow³⁹ argue that revolutions need organizational resources, framing strategies, and political opportunities. Their perspective is dynamic and highlights the mechanisms of mobilization and collective action. Social movement theory literature is instrumental in explaining why some societies with deep grievances remain stable while others do not. Zeynep Tufekci's *Twitter and Tear Gas* as well as her work on social media reveal that digital platforms reduce the mobilization cost and scale up participation.⁴⁰

These platforms, however, can also produce fragile movements lacking organizational

³⁵ Ted Robert Gurr, *Why Men Rebel* (Princeton: Princeton University Press, 1970), pp. 35–40

³⁶ James Davies, *Towards a Theory of Revolution* (*American Sociological Review* 27, no. 1, 1962), pp. 5–17.

³⁷ Charles Tilly, *From Mobilization to Revolution* (Reading, MA: Addison-Wesley, 1978), pp. 15–25

³⁸ Doug McAdam, *Political Process and the Development of Black Insurgency, 1930–1970* (Chicago: University of Chicago Press, 1982), pp. 10–20

³⁹ Sidney Tarrow, *Power in Movement: Social Movements, Collective Action and Politics* (Cambridge: Cambridge University Press, 1994), pp. 5–15.

⁴⁰ Zeynep Tufekci, *Twitter and Tear Gas: The Power and Fragility of Networked Protest* (New Haven: Yale University Press, 2017), pp. 45–55.

resilience.⁴¹ Social movement theory and the related literature fill a significant conceptual gap by connecting structural conditions with agency and organization. However, they must now adapt to environments where algorithmic amplification, misinformation, and surveillance shape mobilization.⁴²

Cybernetics, pioneered by Norbert Wiener, reframes societies as feedback systems. Revolution occurs when feedback loops break down.⁴³ This approach has shaped governance experiments, but its bias towards stability defines revolution as a malfunction, ignoring its liberating potential.⁴⁴ Complexity theory deepens this systems approach. It portrays societies as nonlinear and adaptive. Scholars such as Yaneer Bar-Yam⁴⁵ and Nassim Nicholas Taleb⁴⁶ stress tipping points and “Black Swan” events, acknowledging unpredictability while looking for probabilistic leverage. Political risk assessment operationalizes these paradigms. Antoine Bousquet’s *The Scientific Way of Warfare* discusses much of this.⁴⁷ These tools extend the scope of analysis but often introduce ethical dilemmas such as preemptive repression and normalization of surveillance. Critical voices remind us that prediction is political. Literature from James C. Scott warns that state-driven attempts to make society readable often miss local realities.⁴⁸ Shoshana Zuboff’s work demonstrates how predictive analytics give power to surveillance

⁴¹ Ibid., pp. 50–52.

⁴² Evgeny Morozov, *The Net Delusion: The Dark Side of Internet Freedom* (New York: PublicAffairs, 2011), pp. 60–65.

⁴³ Norbert Wiener, *Cybernetics: Or Control and Communication in the Animal and the Machine* (Cambridge, MA: MIT Press, 1948), pp. 12–20.

⁴⁴ Ibid., pp. 45–50.

⁴⁵ Yaneer Bar-Yam, *Dynamics of Complex Systems* (Reading, MA: Addison-Wesley, 1997), pp. 200–215

⁴⁶ Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007), pp. 35–50.

⁴⁷ Antoine Bousquet, *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity* (London: Hurst & Company, 2009), pp. 80–95.

⁴⁸ James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998), pp. 1–30.

capitalism.⁴⁹ Technocratic theories, literature, and approaches may highlight vulnerabilities, but they also risk changing revolutions from political acts into security problems that officials manage.⁵⁰

When placed next to each other, classical and technocratic literature appear to address different questions. Classical theories explain why revolutions occur, following contradictions, grievances, and mobilization. Technocratic approaches aim to identify how revolutions unfold, using quantifiable thresholds, signals, and probabilities. Yet both bodies of literature share blind spots. Classical theories often fail to anticipate revolutions before they happen, and technocratic models often fail to explain revolutions' deeper causes. Classical literature risks overemphasizing determinism and ideology. Technocratic literature risks collapsing human agency and symbolic meaning into datasets and indicators.⁵¹ The merging of literature is in recent attempts to hybridize. Goldstone's integration of structuralist ideas into quantitative forecasting highlights the potential of combining explanatory and predictive literature.⁵² Similarly, applying social movement theory to digital mobilization highlights how qualitative and quantitative tools might complement each other.⁵³

A clear picture of the field reveals three persistent gaps in the literature. There are some predictive limitations. Literature from both traditions explains the past better than they anticipate the future. Neither tradition predicted events such as the Arab Spring or the Hong Kong protests. This failure demonstrates the weaknesses of the literature when confronted with contingency.

⁴⁹ Shoshana Zuboff, *The Age of Surveillance Capitalism* (New York: PublicAffairs, 2019), pp. 65–85.

⁵⁰ *Ibid.*, pp. 120–125.

⁵¹ Scott, *Seeing Like a State*, pp. 200–215.

⁵² Jack Goldstone, *Revolution and Rebellion in the Early Modern World* (Berkeley: University of California Press, 1991), pp. 300–320.

⁵³ Zeynep Tufekci, *Twitter and Tear Gas: The Power and Fragility of Networked Protest* (New Haven: Yale University Press, 2017), pp. 50–75.

There is also the gap of methodological silos. Structuralist and grievance-based scholars rarely engage with computational models, while technocratic scholars tend to ignore cultural, symbolic, and normative dimensions. The result of this is parallel debates with limited incorporation.⁵⁴ The third gap is the ethical blind spots. Classical literature can sometimes romanticize revolutions and overlook authoritarian outcomes. Technocratic approaches often legitimize repression by securitizing dissent. Literature from both traditions must grapple more seriously with the normative implications of their frameworks.

This dissertation builds directly on these blind spots by bridging explanatory and predictive literatures. This dissertation argues that revolutions in liberal democracies cannot be understood solely through structural contradictions or scientific indicators. Scholars must see revolutions as hybrid phenomena. Scholars must see revolutions as driven by inequality, elite division, and grievances, but also shaped by feedback loops, algorithmic amplification, and systemic fragility. The case of the contemporary United States exemplifies this need. Classical theories and literature highlight the widening inequality, institutional breakdown, and grievances. Social movement theory explains the rapid mobilization of recent protests through digital platforms. Technocratic models capture the feedback collapses caused by misinformation and polarization.⁵⁵ Yet no tradition alone is sufficient. A hybrid approach is necessary to account for both deep structural pressures and rising digital dynamics.

The literature on revolution shows both remarkable richness and significant divide. Classical theories provide deep explanations but risk determinism and irrelevance in modern contexts. Technocratic models promise forecasts but risk reductions and ethical dilemmas. Social

⁵⁴ James Davies, *J-Curve: A New Way to Understand Why Nations Rise and Fall* (New York: Free Press, 1990), pp. 60–75.

⁵⁵ Antoine Bousquet, *The Scientific Way of Warfare* (New York: Columbia University Press, 2009), pp. 150–170

movement theory bridges some of those gaps but needs adaptation to digital realities. When used together, the scholarship shows that revolutions are contingent, emergent, and resistant to any one paradigm. Therefore, this dissertation works to integrate these traditions into a hybrid framework that addresses both explanatory depth and predictive ability, while highlighting the ethical stakes of how revolution is studied.

Chapter Two - Revolution in Theory: Classical and Contemporary Models

This chapter provides an broad view of the dominant theoretical models of revolution. These span from Marxist thought to contemporary and interdisciplinary frameworks. Understanding these models is necessary to evaluate revolutionary potential in any context, particularly in liberal democracies like the United States. Traditional revolutionary dynamics may appear under unique institutional, cultural, and technological filters. By tracing the development of these frameworks, this chapter provides the conceptual foundation for later analysis of scientific and technocratic approaches (Chapter Three) and the case study of the United States (Chapter Four). It also assesses the capacity of each model to highlight or misinterpret in complex, media-rich, and institutionally dense political systems.

Marx's theory of revolution stems from his larger framework of historical materialism, which holds that a society's economic structure, its "mode of production," shapes the larger political and ideological structure.⁵⁶ Marx argued that every mode of production contains internal contradictions between the forces and relations of production.⁵⁷ In capitalist societies, this contradiction takes the form of the bourgeoisie's exploitation of the proletariat. This exploitation generates class hostility that will, over time, become beyond reconciliation.⁵⁸ For Marx, the proletarian revolution was a matter of moral outrage and the inevitable outcome of these internal contradictions.⁵⁹ Once the working class developed the consciousness of its exploitation and collectively organized, the proletariat would overthrow the bourgeoisie and establish a communist and classless society. Although often interpreted deterministically, recent scholarship

⁵⁶ Karl Marx, *A Contribution to the Critique of Political Economy* (1859), Preface.

⁵⁷ Marx, *Capital*, vol. 1 (1867), chap. 32.

⁵⁸ Michael Burawoy, *Marxism Without Guarantees* (Oxford: Wiley, 2022), 45–48.

⁵⁹ Kevin B. Anderson, *Marx at the Margins* (Chicago: University of Chicago Press, 2010), 112–115.

has emphasized the dialectical complexity of Marx's thought. Scholars have noted the interplay of structure, ideology, and agency. Erik Olin Wright's work on "real utopias" illustrates how anticipatory social arrangements can challenge capitalist logics without waiting for complete system collapse.⁶⁰ Perry Anderson has examined the historical irregularity of class alliances in shaping the trajectories of revolutions.⁶¹ Critics contend that Marx's model is inadequate for explaining revolutions motivated by non-economic grievances or occurring in non-capitalist environments.⁶² Historical cases such as the Iranian Revolution of 1979 defy strict economic determinism with its religious leadership and cross-class alliances.⁶³ Nevertheless, Marx's focus on structural conditions continues to inform inequality and systemic crisis debates.⁶⁴ This focus includes advanced liberal economies marked by growing wealth gaps and economic hazards.

Vladimir Lenin reinterpreted Marxism to address the practical challenges of revolutionary organization. In *What Is to Be Done?* (1902), Lenin argued that the working class would only reach the level of "trade union consciousness" if left to spontaneous development.⁶⁵ This level of consciousness was insufficient for systemic transformation. Lenin claimed that a disciplined and centralized party had to instill revolutionary consciousness. This party, "the vanguard, " could coordinate strategy and take power when the state was vulnerable.⁶⁶ Lenin's theory emphasizes the role of elite leadership and organizational discipline. It has influenced numerous revolutionary movements, such as Mao Zedong's Communist Party in China⁶⁷ and

⁶⁰ Erik Olin Wright, *How to Be an Anticapitalist in the 21st Century* (London: Verso, 2019), 63–67.

⁶¹ Perry Anderson, *The H-Word: The Peripeteia of Hegemony* (London: Verso, 2017), 88–92.

⁶² Theda Skocpol, *Social Revolutions in the Modern World* (Cambridge: CUP, 1994), 134–137.

⁶³ Misagh Parsa, *Democracy in Iran* (Cambridge, MA: Harvard UP, 2016), 72–75.

⁶⁴ Wolfgang Streeck, *How Will Capitalism End?* (London: Verso, 2016), 112–116.

⁶⁵ Lenin, *What Is to Be Done?*, 1902, p. 119.

⁶⁶ *Ibid.*, pp. 120–121.

⁶⁷ Meisner, *Mao's China and After*, 1999, p. 386.

Fidel Castro's 26th of July Movement in Cuba.⁶⁸ Comparative research suggests that these vanguardist models work best in contexts of extreme repression and limited civil society space. They may be less effective in liberal democracies where broad participation, rather than central authority, provides legitimacy.⁶⁹ Critics argue that vanguardism risks replacing democratic processes and accountability with authoritarian control.⁷⁰ In democratic contexts, this hierarchical structure may isolate grassroots actors. We can see this isolation in tensions between centralized leadership and decentralized movements like Occupy Wall Street.

Crane Brinton's study of comparisons, *The Anatomy of Revolution* (1938), compared the American, French, and Russian Revolutions. Brinton proposed that revolutions happen in cycles, like biological processes: the fall of the old regime, moderate reforms, a radical takeover, a reign of terror, and finally, a return to normalcy.⁷¹ Brinton focused on the psychological and cultural aspects supporting revolutionary change, like changing loyalties, symbolically breaking away from the past, and how ideology keeps people interested in politics.⁷² While Brinton's typology offers functional patterns, it often risks oversimplifying complex revolutionary trajectories. The quickness of the American Revolution's institutional stabilization contrasts sharply with the extended instability that followed the Russian Revolution, challenging the generality of Brinton's "return to normalcy" stage.⁷³ Later scholars, such as Jack Goldstone and Theda Skocpol,

⁶⁸ Castro, *My Life: A Spoken Autobiography*.

⁶⁹ Van de Sande, *Vanguard Parties in Comparative Perspective*

⁷⁰ Pipes, *Russia Under the Bolshevik Regime*

⁷¹ Crane Brinton, *The Anatomy of Revolution*, rev. ed. (New York: Vintage, 1965), 16–21.

⁷² *Ibid.*, 78–82.

⁷³ Arno J. Mayer, *The Furies: Violence and Terror in the French and Russian Revolutions* (Princeton: Princeton University Press, 2000), 112–115.

reframed Brinton's ideas in demographic and structural terms while moving towards contingency-based explanations.^{74 75 76}

Theda Skocpol revolutionized the field with *States and Social Revolutions* (1979) by rejecting voluntarist accounts in favor of structuralist explanations.⁷⁷ By studying the French, Chinese, and Russian revolutions, Skocpol concluded that revolutions occur when state institutions collapse.⁷⁸ These state institutions, especially agrarian governments, collapse under the combined pressures of economic crisis, global competition, and elite divide. Skocpol's theoretical approach demonstrates conceptual alignment with resilience theory in environmental studies. This theory explains that systems fail when external shocks happen simultaneously with internal weaknesses.⁷⁹ The concepts found in resilience theory run help aid in the analysis of democratic backsliding in today's world. Critics have argued that Skocpol minimizes the role of ideology, mass mobilization, and leadership by prioritizing structural breakdown. Even so, her work remains influential in comparative analysis by highlighting the interaction between state capacity and international context. Jack Goldstone's *Revolution and Rebellion in the Early Modern World* (1991) expanded structuralism into demographic-structural theory. This theory identified elite overproduction, economic strain, and population pressures as drivers of instability.⁸⁰ Goldstone's later work incorporated quantitative early-warning systems that influenced both academic and intelligence community assessments.⁸¹ Goldstone's predictions of

⁷⁴ Jack A. Goldstone, *Revolution and Rebellion in the Early Modern World* (Berkeley: UC Press, 1991), 63–67.

⁷⁵ Goldstone, “Population and Security: How Demographic Change Can Lead to Violent Conflict,” *Journal of International Affairs* 56, no. 1 (2002): 3–21.

⁷⁶ Theda Skocpol, *States and Social Revolutions* (Cambridge: CUP, 1979), 33–37.

⁷⁷ Theda Skocpol, *States and Social Revolutions* (Cambridge: Cambridge University Press, 1979), 4–7.

⁷⁸ *Ibid.*, 47–52.

⁷⁹ Holling, *Resilience and Stability of Ecological Systems*, 1973, pp. 14–18.

⁸⁰ Goldstone, *Revolution and Rebellion in the Early Modern World*, 1991, pp. 45–50.

⁸¹ Goldstone, *Revolution and Rebellion in the Early Modern World*, 1991, pp. 112–115.

unrest before the Arab Spring demonstrated the model's potential. However, the model's inability to predict movements such as the Hong Kong protests of 2018 and 2019 shows the limits of purely structural forecasting.⁸²

In *Why Men Rebel* (1970), Ted Gurr advances the idea of relative deprivation, the gap between expected and actual conditions, as a key motivator for rebellion.⁸³ This model's subjectivity allows it to be adaptable across contexts, from civil war to waves of protests. However, this is methodologically challenging as measuring perceptions in real time is extremely difficult,⁸⁴ and often, grievances do not translate into mobilization.⁸⁵ James Davies' *J-curve theory* (1962), as visualized in Figure 1, complements Gurr's work by framing grievance formation as a dynamic process. Davies argues that revolutions are most likely to happen when a protracted political or economic advancement is abruptly reversed.⁸⁶ The "gap" between abrupt decline and rising expectations makes people feel betrayed and in crisis, which drives them to take drastic measures. Historical examples such as the fall of the Soviet Union illustrate Davies' "reversal shock" in action, where following the collapse of the Soviet Union, economic decline followed a perceived political liberalization.⁸⁷ Both Gurr and Davies' models highlight that grievances alone are insufficient to start a revolution. Actors must politicize and organize grievances, which connects their models to social movement theory.^{88 89}

⁸² Goldstone, "Population and Political Unrest," *Journal of Conflict Resolution*, 2011, pp. 345–347.

⁸³ Ted R. Gurr, *Why Men Rebel* (Princeton: Princeton University Press, 1970), 23–27.

⁸⁴ Steven E. Finkel et al., "Measuring Perceived Deprivation: Challenges from Survey Experiments in Yemen," *American Political Science Review* 115, no. 4 (2021): 1338–1351. <https://doi.org/10.1017/S000305542100045X>.

⁸⁵ Christian Davenport, *How Social Movements Die* (Cambridge: CUP, 2015), 88–92.

⁸⁶ James C. Davies, "Toward a Theory of Revolution," *American Sociological Review* 27, no. 1 (1962): 5–9.

⁸⁷ Vladimir Tismăneanu, *Fantasies of Salvation* (Princeton: Princeton University Press, 1998), 112–115.

⁸⁸ Sidney Tarrow, *Power in Movement*, 4th ed. (Cambridge: CUP, 2022), 45–48.

⁸⁹ Doug McAdam and Sidney Tarrow, "Social Movements and Elections: Toward a Broader Understanding of the Political Context of Contention," *Mobilization* 25, no. 1 (2020): 7–22.

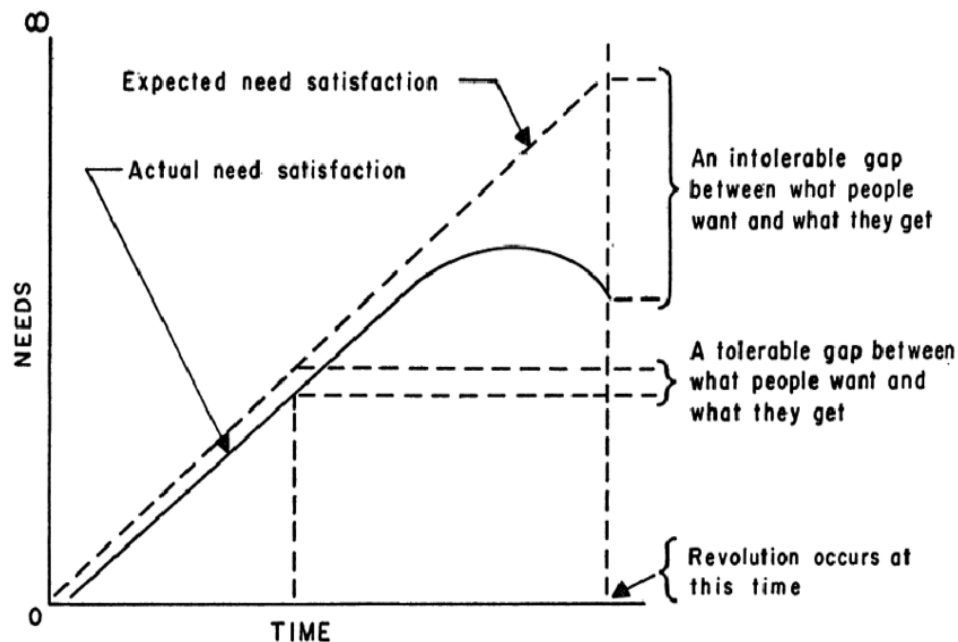


Figure 1: James Davies' J-Curve visualized (*Polish Political Science Studies*, 67(3), s. 131-153.)

Charles Tilly and Doug McAdam shifted the emphasis from psychological triggers and structural inevitability to the mechanisms that make mobilization and collective action possible.⁹⁰ The political process model defines revolutions as mass mobilizations that call for organizational resources, framing techniques, and favorable political opportunity structures.⁹¹ Research on the Black Lives Matter movement of 2020 demonstrates how digital networks can function as both framing tools and resource mobilizers.⁹² Digital networks can expand reach while shaping narratives about state violence.⁹³ In addition to this research, Sydney Tarrow and Donatella della Porta expand on the transnational dimension and show how global events and norms feed into

⁹⁰ Doug McAdam, *Political Process and the Development of Black Insurgency, 1930–1970*, 2nd ed. (Chicago: University of Chicago Press, 1999), 34–38.

⁹¹ Charles Tilly, *Contentious Performances* (Cambridge: CUP, 2008), 72–75.

⁹² Deen Freelon et al., "Beyond the Hashtags: #Ferguson, #BlackLivesMatter, and the Online Struggle for Offline Justice," *Center for Media & Social Impact* (2016), 12–15. <https://doi.org/10.2139/ssrn.2747066>.

⁹³ Zeynep Tufekci, *Twitter and Tear Gas* (New Haven: Yale University Press, 2017), 63–67.

local struggles.⁹⁴ This perspective is especially relevant in today's globalized media environment, where protest imagery and revolutionary rhetoric can circulate immediately.⁹⁵ This new digital age can influence movements across borders.

Recent research emphasizes how social media and digital platforms have transformed the scale, speed, and form of mobilizations.⁹⁶ Zeynep Tufekci argues that even though social media lowers the barriers to entry, it can produce "tactically brittle" movements. These movements lack the organizational resilience of past pre-digital movements. Evgeny Morozov even argues that states can use these same technologies for infiltration, surveillance, and counter-mobilization.⁹⁷ The United States Capitol riot of January 6th, 2021, and the global climate strikes illustrate the ideological neutrality of digital mobilization and its ability to empower both progressive and reactionary causes.⁹⁸ These cases challenge predictive models that assume technological advancement favors democratization. It also raises important questions about how technology and digital tools can both amplify dissent and enable authoritarian control.

Social media's new dynamics, such as algorithmic amplification, performative activism, and virality, test conventional theories of revolutionary mobilization.⁹⁹ Armed Conflict and Event Data (ACLED) data on United States protest events between 2015 and 2023 show a dramatic increase in digitally coordinated demonstrations.¹⁰⁰ This data highlights the scale of such mobilizations. For theoretical frameworks to remain analytically valuable, scholars must

⁹⁴ Sidney Tarrow, *The New Transnational Activism* (Cambridge: CUP, 2005), 88–92.

⁹⁵ Donatella della Porta, *Global Diffusion of Protest* (Amsterdam: Amsterdam University Press, 2020), 112–115.

⁹⁶ Paolo Gerbaudo, *The Digital Party* (London: Pluto Press, 2019), 45–48.

⁹⁷ Morozov, *The Net Delusion: The Dark Side of Internet Freedom*, 2011, pp. 101–107.

⁹⁸ Pew Research Center, "Public Opinion on the January 6th Capitol Riot," 2021, pp. 4–6.

⁹⁹ Joshua A. Tucker et al., "From Liberation to Turmoil: Social Media and Democracy," *Journal of Democracy* 28, no. 4 (2017): 46–59. <https://doi.org/10.1353/jod.2017.0064>.

¹⁰⁰ Armed Conflict Location & Event Data Project (ACLED), *U.S. Disorder Trends: 2015–2023* (2023), 14–18. <https://acleddata.com/us-disorder-trends/>.

modify them to consider these complexities. Despite decades of theoretical development, scholars have not answered the question of whether revolutions can be predicted. Although Goldstone's and Gurr's models provide useful aids, they frequently have trouble with real-time implementation and the appearance of random unpredictable events.¹⁰¹ Nicholas Taleb's critique of predictive modeling in complex systems is particularly relevant; it cautions against placing too much trust in linear forecasting in inherently uncertain areas.¹⁰²

Even after extensive theoretical development, no one model provides a thoroughly reliable framework for predicting revolution. Comparative research suggests that combining structural indicators with real-time mobilization data may provide a more accurate assessment.¹⁰³ Even this approach is still vulnerable to unexpected "Black Swan" events.¹⁰⁴ The epistemological stakes continue to be significant. Predictive modeling can provide information for policy, but it also risks legitimizing preemptive repression.¹⁰⁵ Reducing a nation's revolutionary potential to a simple risk score can conceal civilian dissent's political and moral dimensions.¹⁰⁶ The study of revolution benefits as a whole from pluralism. Using structural, psychological, organizational, and technological perspectives can capture critical features of complex political change.¹⁰⁷ The challenge is integrating all these perspectives without diminishing the cultural and historical specifications that make a revolutionary movement unique. The upcoming chapter examines scientific and technocratic approaches to the study of revolution and explores how they attempt

¹⁰¹ Jack A. Goldstone, "Toward a Fourth Generation of Revolutionary Theory," *Annual Review of Political Science* 4 (2001): 159–161.

¹⁰² Nassim Nicholas Taleb, *The Black Swan*, 2nd ed. (New York: Random House, 2010), 203–207.

¹⁰³ Jay Ulfelder, "Integrating Structural and Event Data for Conflict Forecasting," *Journal of Peace Research* 59, no. 3 (2022): 412–415. <https://doi.org/10.1177/00223433221074419>.

¹⁰⁴ Nassim Nicholas Taleb, *The Black Swan*, 2nd ed. (New York: Random House, 2010), xxiii–xxv.

¹⁰⁵ Virginia Eubanks, *Automating Inequality* (New York: St. Martin's Press, 2018), 129–133.

¹⁰⁶ Ruha Benjamin, *Race After Technology* (Cambridge: Polity, 2019), 68–72.

¹⁰⁷ Theda Skocpol, "Doubly Engaged Social Science," *Perspectives on Politics* 20, no. 1 (2022): 8–11. <https://doi.org/10.1017/S153759272100213X>.

to operationalize the theories surveyed in Chapter Two, in addition to reviewing these approaches' methodological and ethical implications in democratic settings.

Chapter Three - Scientific, Cybernetic, and Technocratic Approaches to Revolution

The study of revolution has shifted significantly over the twenty-first century, moving from a primarily historical or sociopolitical phenomenon to a problem of risk management, control, and prediction. This transformation reflects broader epistemic shifts in how institutions, such as academic institutions, governments, militaries, and think tanks, conceptualize the dynamics of social upheaval.^{108 109} Increasingly, revolution is framed not as an unpredictable disruption of political agency, but as a calculable event. Revolution can be modeled, anticipated, and even prevented. These approaches rely on positivist assumptions: that researchers can quantify, model, and simulate intricate social phenomena using computational or systemic tools.¹¹⁰ The appeal of these methods is rooted in their ability to predict and control. Yet, the very premises of these models, reductionism, universalism, and abstraction, raise serious methodological issues and ethical concerns.

This chapter examines the intellectual lineage of scientific approaches to revolution, starting with mechanistic and thermodynamic metaphors of conflict, moving into cybernetics, and ending with contemporary complexity theory and predictive algorithmic forecasting. Drawing on Antoine Bousquet's *The Scientific Way of Warfare*, empirical applications in intelligence agencies, and political risk forecasting systems, this chapter evaluates how these

¹⁰⁸ Harvard's *Forecasting Instability Lab*, "Annual Report 2023," 12–15. <https://fil.harvard.edu/reports>.

¹⁰⁹ U.S. Army Research Office, *Modeling Civil Unrest for Strategic Forecasting* (2022), 23–27.

¹¹⁰ David C. Earnest, *The Birth of the Forecasting Revolution* (Stanford: SUP, 2021), 112–115.

methods conceptualize revolution and the implications of treating political turmoil as a calculable event.¹¹¹

In *The Scientific Way of Warfare*, Antoine Bousquet identifies the four dominant epistemological and scientific shifts in the evolution of modern strategic thinking. Bousquet lists the four main scientific paradigms as the mechanistic, the thermodynamic, the cybernetic, and the complexity-based systems frameworks.¹¹²

The mechanistic paradigm was dominant in the 18th and 19th centuries and borrowed from Newtonian physics. The mechanistic paradigm viewed society as a machine composed of discrete and predictable parts.¹¹³ The Enlightenment conviction of rational engineering reinforced the belief that people could reorganize political systems through logical planning.¹¹⁴ Revolutionary leaders such as Robespierre and later the Bolsheviks frequently embraced this engineering mentality, believing that they could "rebuild" society along clear and logical lines.¹¹⁵ While models such as the mechanistic paradigm did offer some clarity, they also had a tendency to be overconfident in central design, as argued by James C. Scott in his critique of "high modernist" projects.¹¹⁷ These models often fail because they disregard social complexity and local knowledge.¹¹⁸ The mechanistic paradigm foreshadows one of the risks that persists in

¹¹¹ Antoine Bousquet, *The Scientific Way of Warfare* (New York: Columbia UP, 2009), 88–92.

¹¹² Antoine Bousquet, *The Scientific Way of Warfare* (New York: Columbia UP, 2009).

¹¹³ Isaac Newton, *Principia Mathematica* (1687), trans. I. Bernard Cohen (Berkeley: University of California Press, 1999), 43–47.

¹¹⁴ Jean d'Alembert, *Preliminary Discourse to the Encyclopedia of Diderot* (1751), ed. Richard Schwab (Chicago: University of Chicago Press, 1995), 12–15.

¹¹⁵ Maximilien Robespierre, "On the Principles of Political Morality" (1794), in *Virtue and Terror*, ed. Slavoj Žižek (London: Verso, 2007), 108–112.

¹¹⁶ Vladimir Lenin, *The Immediate Tasks of the Soviet Government* (1918), in *Collected Works*, vol. 27 (Moscow: Progress Publishers, 1965), 267–271.

¹¹⁷ James C. Scott, *Seeing Like a State* (New Haven: Yale University Press, 1998), 89–93.

¹¹⁸ Dan McQuillan, *Resisting AI: An Anti-fascist Approach to Artificial Intelligence* (Bristol: Policy Press, 2022), 55–58.

scientific approaches: The assumption that human societies can be reassembled like machines, while disregarding any unintended consequences.¹¹⁹

By the late 19th century, thermodynamic models had gained traction.¹²⁰ These models emphasized the entropic nature of social systems.¹²¹ Intellectuals like Vilfredo Pareto and Gaetano Mosca interpreted revolutionary movements as the release of accumulated social "energy" or pressure.^{122 123} Thermodynamic theory also influenced sociobiological explanations of revolution, viewing mass mobilization as a way to relieve social pressure.¹²⁴ This new imagery matched sociobiological accounts of conflict, in which mobilization serves as a sort of system rebalancing. Thermodynamic thinking influenced the early "pressure cooker" models of unrest.¹²⁵ These models framed revolution as inevitable and a safety-valve response to prolonged repression and inequality.¹²⁶ However, thermodynamic models struggle to explain revolutions occurring in low-pressure conditions or revolutions driven by symbolic and cultural motivations rather than material tension and imbalance.¹²⁷

The cybernetic paradigm emerged in the middle of the 20th century, gaining popularity during the Cold War. Norbert Wiener pioneered this shift, offering a new language of

¹¹⁹ *The Guardian*, "Palantir's Predictive Policing Algorithms," March 10, 2024.

<https://www.theguardian.com/palantir-protest-tracking>.

¹²⁰ David Easton, *A Systems Analysis of Political Life* (New York: Wiley, 1965), 25–28.

¹²¹ Nicholas Georgescu-Roegen, *The Entropy Law and the Economic Process* (Cambridge, MA: Harvard University Press, 1971), 10–12.

¹²² Vilfredo Pareto, *The Mind and Society*, vol. 1, trans. Andrew Bongiorno (New York: Harcourt, Brace & World, 1935), 95–102

¹²³ Gaetano Mosca, *The Ruling Class*, trans. Hannah D. Kahn (New York: McGraw-Hill, 1939), 41–49.

¹²⁴ Charles Tilly, *From Mobilization to Revolution* (Reading, MA: Addison-Wesley, 1978), 45–50.

¹²⁵ Crane Brinton, *The Anatomy of Revolution* (New York: Vintage Books, 1965), 35–40.

¹²⁶ Theda Skocpol, *States and Social Revolutions: A Comparative Analysis of France, Russia, and China* (Cambridge: Cambridge University Press, 1979), 46–50.

¹²⁷ James C. Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven: Yale University Press, 1976), 32–37.

information, feedback, and regulation.¹²⁸ Cybernetic models explained that researchers can understand societies as systems that maintain homeostasis through feedback loops¹²⁹, as seen in Figure 2. When actors fail or ignore the feedback loop, instability rises.¹³⁰ Cybernetic thinking inspired and shaped both counterinsurgency strategy and political governance.¹³¹ In military contexts, cybernetic thinking helped influence doctrines from the United States' war in Vietnam to the Counterinsurgency Field Manual (2006)¹³². In the context of governance, cybernetic thinking has inspired Stafford Beer's Viable System Model (VSM)¹³³ and the short-lived Project Cybersyn introduced under Chile's Salvador Allende in an attempt to stabilize Chile's economy using real-time data.¹³⁴ Despite its brief existence, Project Cybersyn demonstrated the idea that people can use cybernetic principles to engineer political stability.¹³⁵ Cybernetics reformulates revolution as a disturbance in the feedback mechanisms of governance.¹³⁶ The state's inability to process civilian grievances or insurgents' deliberate disruption of information channels can cause this disturbance.¹³⁷ However, the danger of the cybernetic paradigm is that cybernetic models favor stability over transformation.¹³⁸ These models define revolution as a "malfunction" that must be corrected instead of a political act with potentially liberating goals.¹³⁹

¹²⁸ Norbert Wiener, *Cybernetics: Or Control and Communication in the Animal and the Machine* (Cambridge, MA: MIT Press, 1948), 11–20.

¹²⁹ Stafford Beer, *Brain of the Firm* (London: Wiley, 1972), 45–50.

¹³⁰ *Ibid.*, 52–55.

¹³¹ John Arquilla and David Ronfeldt, *Cyberwar is Coming!* (Santa Monica, CA: RAND, 1993), 15–22.

¹³² U.S. Department of the Army, *Counterinsurgency Field Manual* (Washington, DC: Government Printing Office, 2006), 1–10.

¹³³ Stafford Beer, *The Heart of Enterprise* (Chichester: Wiley, 1979), 120–130

¹³⁴ Eden Medina, *Cybernetic Revolutionaries: Technology and Politics in Allende's Chile* (Cambridge, MA: MIT Press, 2011), 45–60.

¹³⁵ Medina, *Cybernetic Revolutionaries*, 61–65.

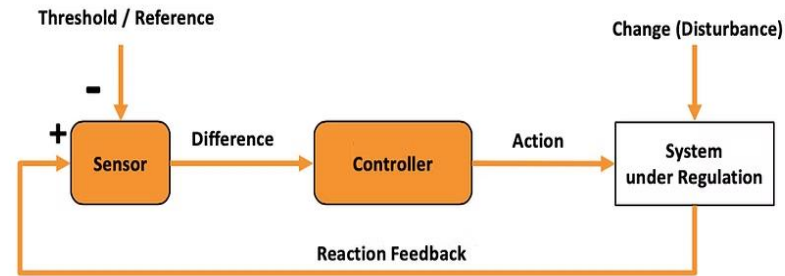
¹³⁶ Wiener, *Cybernetics*, 55–60.

¹³⁷ *Ibid.*, 65–70.

¹³⁸ Beer, *Brain of the Firm*, 75–80.

¹³⁹ Medina, *Cybernetic Revolutionaries*, 70–75.

CYBERNETIC CONTROL LOOP



- When the variety or complexity of the environment exceeds the capacity of a system the environment will dominate
- The larger the variety of actions available to a control system, the larger the variety it is able to compensate
- The capacity of the control system cannot exceed the capacity as a channel of communication
- The response time of the control system must meet or exceed the speed of change

† Law of Requisite Variety – Ross Ashby (Cyberneticist)

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LEAN
COMPLIANCE

Figure 2: Cybernetic control loop illustrating feedback regulation in systems (source: Lean Compliance, “Cybernetic Control Loop”).

Today's prevailing paradigm is complexity theory, which defines society as an adaptive and nonlinear system with diverse agents.¹⁴⁰ These diverse agents' interactions produce urgent properties.¹⁴¹ Scholars such as Yaneer Bar-Yam¹⁴² and Nassim Nicholas Taleb draw on chaos theory to emphasize tipping points and "Black Swan" events, rare but powerful occurrences that defy prediction.¹⁴³ Complexity theory rejects the earlier paradigms' determinism and acknowledges the irremovable uncertainty of past paradigms.¹⁴⁴ However, in practice, many complexity theory models still attempt to forecast based on probability. These models use large data sets to try to identify conditions in which revolutions become more likely.¹⁴⁵ The tension

¹⁴⁰ Melanie Mitchell, *Complexity: A Guided Tour* (Oxford: Oxford University Press, 2009), 13–20.

¹⁴¹ John H. Holland, *Emergence: From Chaos to Order* (Reading, MA: Addison-Wesley, 1998), 2–10.

¹⁴² Yaneer Bar-Yam, *Dynamics of Complex Systems* (Reading, MA: Addison-Wesley, 1997), 862–870

¹⁴³ Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007), xvii–xxii.

¹⁴⁴ Mitchell, *Complexity*, 45–50.

¹⁴⁵ Bar-Yam, *Dynamics of Complex Systems*, 881–890.

between the desire to predict revolutions and the recognition of unpredictability defines most of the field in today's scholarship.

Systems thinking, which has its roots in cybernetics, has become a core tenet for political risk governance. Systems thinking models chart interdependencies between political, economic, and social variables and attempt to seek leverage points for intervention.¹⁴⁶ Donella Meadows' *Limits to Growth* demonstrated how feedback-loop modeling could anticipate economic and political crises.¹⁴⁷ Think tanks such as the RAND Corporation have adapted these methods and used dynamic system maps to simulate insurgencies and forecast revolutionary risk.¹⁴⁸ However, this method often reduces the complex political landscapes into manageable variables for scenario planning.¹⁴⁹ This reductionism does enable clarity, but it also risks ignoring revolution's cultural, symbolic, and emotional dimensions.

Political risk assessment emerged as a dominant field in the post-Cold War era, combining security studies and political science with quantitative analysis.¹⁵⁰ Organizations such as the CIA's Political Instability Task Force (PITF), established in the 1990s, developed regression-based models using datasets like the Polity IV index (Figure 3) to determine the conditions favorable to state failure and revolution.¹⁵¹ These conditions include regime type, economic performance, political discrimination, and elite factionalism.¹⁵² Similar efforts by

¹⁴⁶ Peter M. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization* (New York: Doubleday, 1990), 68–75.

¹⁴⁷ Donella H. Meadows, Dennis L. Meadows, Jørgen Randers, and William W. Behrens III, *The Limits to Growth* (New York: Universe Books, 1972), 124–131.

¹⁴⁸ Paul K. Davis and Angela O'Mahony, *A Computational Model of Public Support for Insurgency and Terrorism: A Prototype for More General Social-Science Modeling* (Santa Monica, CA: RAND Corporation, 2013), 5–12.

¹⁴⁹ Senge, *The Fifth Discipline*, 83–90.

¹⁵⁰ Condoleezza Rice, *Political Risk: How Businesses and Organizations Can Anticipate Global Insecurity* (New York: Twelve, 2018), 14–20.

¹⁵¹ Jack A. Goldstone et al., *A Global Model for Forecasting Political Instability* (Washington, DC: Center for Global Policy, 2010), 2–6.

¹⁵² Goldstone et al., *A Global Model for Forecasting Political Instability*, 7–10.

Freedom House, the Varieties of Democracy (V-Dem) project, and the Fund for Peace's Fragile States combine dozens of indicators to represent political volatility, institutional fragility, or democratic regression and aggregate them into a composite score.¹⁵³ ¹⁵⁴These tools influence academic research, policy decisions, and even corporate strategies. Private intelligence firms such as Stratfor and consulting firms like Eurasia Group are increasingly producing proprietary models for clients looking to navigate political unpredictability.¹⁵⁵ Despite their influence, these systems face criticism for concretizing their variables. These systems treat complex social dynamics as static variables and can enable preventative repression.¹⁵⁶ In addition, the act of labelling states "at risk" can sometimes shape state behavior and trigger the very instability which political risk assessments aim to avoid.¹⁵⁷

¹⁵³ Freedom House, *Freedom in the World 2023* (Washington, DC: Freedom House, 2023), xiii–xvii; Michael Coppedge et al., *V-Dem [Country-Year/Country-Date] Dataset v13* (Gothenburg: Varieties of Democracy Institute, 2023)

¹⁵⁴ Fund for Peace, *Fragile States Index Annual Report 2023* (Washington, DC: Fund for Peace, 2023).

¹⁵⁵ George Friedman, *The Next 100 Years: A Forecast for the 21st Century* (New York: Doubleday, 2009), 9–15.

¹⁵⁶ Rita Abrahamsen, "Risk and the Global Politics of Security Development," *International Political Sociology* 8, no. 1 (2014): 98–103.

¹⁵⁷ Claudia Aradau and Rens van Munster, *Politics of Catastrophe: Genealogies of the Unknown* (New York: Routledge, 2011), 55–61.

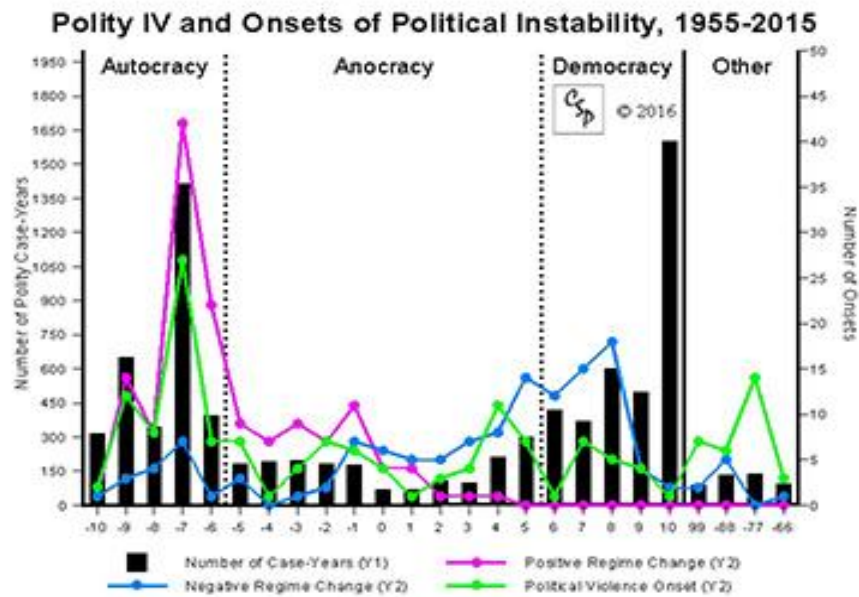


Figure 3: Polity IV and Onsets of Political Instability Predictive Political Risk Assessment 1955-2015 (Center for Systemic Peace)

The growth of digital technologies has brought about a new era of algorithmic governance. Governments and businesses now use machine learning algorithms to track communication networks, spot changes in sentiment, and mobilization indicators.¹⁵⁸ Systems such as EMBERS (Early Model-Based Event Recognition using Surrogates) use news sources, economic data, and social media content to predict protests in real time.¹⁵⁹ This new type of digital prediction incorporates big data analytics and computational linguistics. While AI models try to assign probabilities to potential flashpoints, algorithms scan millions of tweets or posts using Natural Language Processing (NLP) to find protest-related keywords, sentiment shifts, and

¹⁵⁸ Louise Amoore, *Cloud Ethics: Algorithms and the Attributes of Ourselves and Others* (Durham, NC: Duke University Press, 2020), 45–50.

¹⁵⁹ Naren Ramakrishnan et al., “‘Beating the News’ with EMBERS: Forecasting Civil Unrest Using Open Source Indicators,” *Proceedings of the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (2014): 1799–1808.

network patterns.¹⁶⁰ These tools expand the scope and speed of monitoring but raise severe privacy and ethical concerns. Algorithmic surveillance reflects the shift from passive monitoring to active governance. In an age of "surveillance capitalism," as coined by Shoshana Zuboff, predictive analytics blur the line between observation and intervention.¹⁶¹ Actors are not just collecting data, but are actively using it to shape political outcomes.¹⁶² A logic of control, such as censorship, militarized policing, or interventions, frequently coexists with the logic of prediction.¹⁶³ The integration of prediction into security policy has huge risks of transforming democratic states into anticipatory regimes where dissent can be preemptively neutralized.¹⁶⁴

Critical scholars such as James C. Scott argue that state-driven attempts to engineer society frequently result in unforeseen consequences because they fail to consider lived social complexity and local knowledge.¹⁶⁵ Scott's criticism of "high modernist" planning also pertains to revolutionary forecasting. Models that put legibility ahead of subtlety may distort reality.¹⁶⁶ Likewise, Charles Perrow's "normal accidents" theory suggests that predictive systems can create new vulnerabilities when they seek to over-manage tightly coupled environments.¹⁶⁷ This critique aligns with Taleb's argument that rare, high-impact "Black Swan" events routinely

¹⁶⁰ Emilio Ferrara et al., "Predicting Social Media Activity during Real-World Events Using Graph Convolutional Neural Networks," *EPJ Data Science* 9, no. 22 (2020): 1–17.

¹⁶¹ Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (New York: PublicAffairs, 2019), 92–100.

¹⁶² Zuboff, *Surveillance Capitalism*, 152–160.

¹⁶³ David Lyon, *Surveillance Society: Monitoring Everyday Life* (Buckingham: Open University Press, 2001), 75–80.

¹⁶⁴ Didier Bigo, "Security and Immigration: Toward a Critique of the Governmentality of Unease," *Alternatives: Global, Local, Political* 27, no. 1 (2002): 63–65.

¹⁶⁵ James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998), 6–9.

¹⁶⁶ Scott, *Seeing Like a State*, 87–92.

¹⁶⁷ Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (Princeton, NJ: Princeton University Press, 1999), 62–70.

evade predictive models, no matter how sophisticated.¹⁶⁸ From a methodological perspective, political science predictive models frequently use historically contingent datasets and linear regressions. This usage pattern increases the possibility of overfitting, in which a predictive model works well for historical occurrences but not for future technological or cultural situations.¹⁶⁹ The choice of variables is also intrinsically political.¹⁷⁰ Which metrics are considered indicators of instability? Whose viewpoint determines what a revolution is? There are serious ethical issues as well. Predictive models can support preemptive crackdowns, particularly in autocratic or transitional regimes.¹⁷¹ Predicting revolution itself could justify the oppressive actions of authoritarian regimes under the pretense of stability. Furthermore, as Wendy Hui Kyong Chun points out, prediction is not neutral, as it can reinforce biases and emphasize patterns that disproportionately impact marginalized groups.¹⁷² Philosophically, reducing revolution to a control issue causes analysts to overlook its symbolic, affective, and transformative aspects. Revolutions are acts of political creativity and transformation rather than just systemic failures.¹⁷³ Treating revolutions as simply threats to stability neglects the role revolution can play in advancing justice and democratic restoration.¹⁷⁴

Technocratic, cybernetic, and scientific models provide valuable tools for comprehending sociopolitical dynamics and drivers of revolution. Unfortunately, their strength, formal

¹⁶⁸ Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007), xvii–xxii.

¹⁶⁹ Gary King and Langche Zeng, “Improving Forecasts of State Failure,” *World Politics* 53, no. 4 (2001): 623–658.

¹⁷⁰ Giovanni Sartori, *Concept Misformation in Comparative Politics* (New York: Columbia University Press, 1970), 103–110.

¹⁷¹ Rita Abrahamsen, “Risk and the Global Politics of Security Development,” *International Political Sociology* 8, no. 1 (2014): 101–103.

¹⁷² Wendy Hui Kyong Chun, *Discriminating Data: Correlation, Neighborhoods, and the New Politics of Recognition* (Cambridge, MA: MIT Press, 2021), 29–34.

¹⁷³ Hannah Arendt, *On Revolution* (New York: Viking, 1963), 18–22.

¹⁷⁴ Jack A. Goldstone, *Revolutions: A Very Short Introduction* (Oxford: Oxford University Press, 2014), 60–67.

abstraction, is also their most significant limitation.¹⁷⁵ These frameworks, which range from Antoine Bousquet's structured paradigms to intelligence agencies' operational models, allow for a certain level of forecasting and clarity that can guide scholarship and policy. However, they risk losing sight of revolutionary movements' cultural, symbolic, and emotional dimensions. As both democratic and authoritarian regimes adopt predictive analytics, the boundary between scholarly examination and operational control weakens. This erosion commands not just methodological accuracy but also ethical attentiveness.¹⁷⁶ A question we must answer is: How do we improve our predictions if the act of prediction itself changes the political reality that the prediction aims to measure? In the next chapter, these insights will be used in a case study of the contemporary United States, testing applicability and the limitations of classical and scientific models of assessing revolutionary potential.

¹⁷⁵ Antoine J. Bousquet, *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity* (New York: Columbia University Press, 2009), 23–29.

¹⁷⁶ Louise Amoore, *Cloud Ethics: Algorithms and the Attributes of Ourselves and Others* (Durham, NC: Duke University Press, 2020), 99–103.

Chapter Four - The United States as a Case Study

For much of the last two centuries, domestically and internationally, the United States has been an exception to the general standards of political instability, systemic collapse, and revolution that have plagued other nations.¹⁷⁷ Alexis de Tocqueville's 19th-century observations on American democracy in *Democracy in America*¹⁷⁸ and Seymour Martin Lipset's 20th-century thesis stated that the United States represents a "non-revolutionary" path of modernization rooted in strong democratic institutions, a relatively mobile class structure, and a civilian culture that leans towards compromise instead of conflict.¹⁷⁹ Using Lipset's framework, scholars view the American Revolution of 1776 as a founding burst but not a template for future recurring ruptures.¹⁸⁰ In today's United States, this intellectual foundation is under increasing pressure. During the previous two decades, economic inequality has grown to levels comparable to the Gilded Age,¹⁸¹ widespread political polarization has intensified into extremes,¹⁸² and trust in core democratic institutions has fallen to historic lows.¹⁸³ Simultaneously, mass protests such as Occupy Wall Street, Black Lives Matter, and the January 6th Capitol riot reveal an increasing willingness among groups to question or outright reject the past legitimacy of government and electoral authority. These developments and events imitate the warning signs described by

¹⁷⁷ Louis Hartz, *The Liberal Tradition in America* (New York: Harcourt, Brace & World, 1955), 3–7.

¹⁷⁸ Alexis de Tocqueville, *Democracy in America*, trans. Harvey C. Mansfield and Delba Winthrop (Chicago: University of Chicago Press, 2000), 25–30

¹⁷⁹ Seymour Martin Lipset, *American Exceptionalism: A Double-Edged Sword* (New York: W.W. Norton, 1996), 19–24.

¹⁸⁰ Lipset, *American Exceptionalism*, 27–32.

¹⁸¹ Thomas Piketty, *Capital in the Twenty-First Century*, trans. Arthur Goldhammer (Cambridge, MA: Harvard University Press, 2014), 294–301.

¹⁸² Nolan McCarty, Keith T. Poole, and Howard Rosenthal, *Polarized America: The Dance of Ideology and Unequal Riches* (Cambridge, MA: MIT Press, 2016), 45–52.

¹⁸³ Pew Research Center, *Public Trust in Government: 1958–2023* (Washington, DC: Pew Research Center, 2023), <https://www.pewresearch.org>.

structural and contemporary predictive models of revolution.¹⁸⁴ As a result, academics are reassessing the relevance of using classical and modern revolutionary theories to the American setting, raising concerns about whether the United States' historical immunity to revolution still holds true in the twenty-first century.

The paradoxical nature at the center of American political life is that the United States is a nation established on revolution but has been historically resistant to revolutionary and transformative change that reshaped other societies in France (1789), Russia (1917), or China (1949). The American Revolution was essentially a war of independence, not a social revolution, as Theda Skocpol puts it.¹⁸⁵ The American Revolution did not dismantle the state organization or destroy the class hierarchy. However, emerging pressures such as algorithmic governance, ecological stress, financial unpredictability, and geopolitical systemic shocks are forcing scholars to reassess how they evaluate revolution. These new variables may redefine what revolution looks like in a post-industrial democratic society. If agrarian governments shaped Skocpol's historical cases under external pressure, digital infrastructure, information systems, and divided public spheres will likely moderate today's challenges.¹⁸⁶

Indicators of Revolutionary Risk in the U.S.

¹⁸⁴ Jack A. Goldstone et al., *A Global Model for Forecasting Political Instability* (Washington, DC: Center for Global Policy, 2010), 10–12.

¹⁸⁵ Theda Skocpol, *States and Social Revolutions: A Comparative Analysis of France, Russia, and China* (Cambridge: Cambridge University Press, 1979), 108–115.

¹⁸⁶ Zizi Papacharissi, *Affective Publics: Sentiment, Technology, and Politics* (Oxford: Oxford University Press, 2015), 11–16.

Applying Ted Robert Gurr's theory of relative deprivation¹⁸⁷ and Jack Goldstone's demographic-structural model¹⁸⁸ to the contemporary United States reveals a merging of stressors historically linked to revolutionary crises. This section describes a number of these stressors.

Institutional Erosion: Confidence in the United States congressional and judiciary institutions, core pillars of the United States' democratic legitimacy, is at a historic low.¹⁸⁹ Congressional approval ratings have hovered between 15% and 25% for much of the last ten years.¹⁹⁰ Gallup data shows Supreme Court trust falling sharply after polarizing rulings on abortion, voting rights, and executive authority.¹⁹¹ Judicial partisanship, legislative deadlock, and procedural brinkmanship all align with Peter Turchin's theory of elite overproduction.¹⁹² This theory states that dysfunction within a system deepens when rival elites compete for declining legitimacy and resources.¹⁹³ From a cybernetic perspective, this institutional erosion represents a breakdown in "feedback loops, " impairing a system's ability to self-correct.¹⁹⁴

Declining Legitimacy and Trust: According to the Pew Research Center and Gallup data in Figure 4, only 22% of Americans trust the federal government to act in the public interest

¹⁸⁷ Ted Robert Gurr, *Why Men Rebel* (Princeton, NJ: Princeton University Press, 1970), 22–30

¹⁸⁸ Jack A. Goldstone, *Revolution and Rebellion in the Early Modern World* (Berkeley: University of California Press, 1991), 7–15.

¹⁸⁹ Pew Research Center, "Public Trust in Government: 1958–2023," last modified July 2023, <https://www.pewresearch.org>.

¹⁹⁰ Gallup, "Congress and the Public," Gallup Historical Trends, accessed August 2025, <https://news.gallup.com/poll/1600/congress-public.aspx>.

¹⁹¹ Gallup, "Confidence in Institutions," Gallup Historical Trends, accessed August 2025, <https://news.gallup.com/poll/1597/confidence-institutions.aspx>.

¹⁹² Peter Turchin, *Ages of Discord: A Structural-Demographic Analysis of American History* (Berkeley, CA: Beresta Books, 2016), 35–41.

¹⁹³ Peter Turchin and Sergey A. Nefedov, *Secular Cycles* (Princeton, NJ: Princeton University Press, 2009), 12–18.

¹⁹⁴ Norbert Wiener, *Cybernetics: Or Control and Communication in the Animal and the Machine* (Cambridge, MA: MIT Press, 1948), 95–102.

"most of the time".¹⁹⁵ These levels are the lowest sustained levels since researchers began collecting such data in the 1950s.¹⁹⁶ The disputed 2020 presidential election and the viral online spread of conspiracy theories such as QAnon and "Stop the Steal" undermine the symbolic authority of democratic governance.¹⁹⁷ These examples align with Bousquet's cybernetic paradigm, where misinformation acts as "noise" that devalues the accuracy of feedback channels and leads to dysfunctional system responses.¹⁹⁸ Mistrust also extends to the media, electoral processes, and scientific institutions. Through foreign or domestic misinformation campaigns, this spread of mistrust further wears away at the informational feedback loops essential to cybernetic system stability models.¹⁹⁹

¹⁹⁵ Pew Research Center, "Public Trust in Government: 1958–2023," last modified July 2023, <https://www.pewresearch.org>.

¹⁹⁶ Gallup, "Confidence in Institutions," Gallup Historical Trends, accessed August 2025, <https://news.gallup.com/poll/1597/confidence-institutions.aspx>.

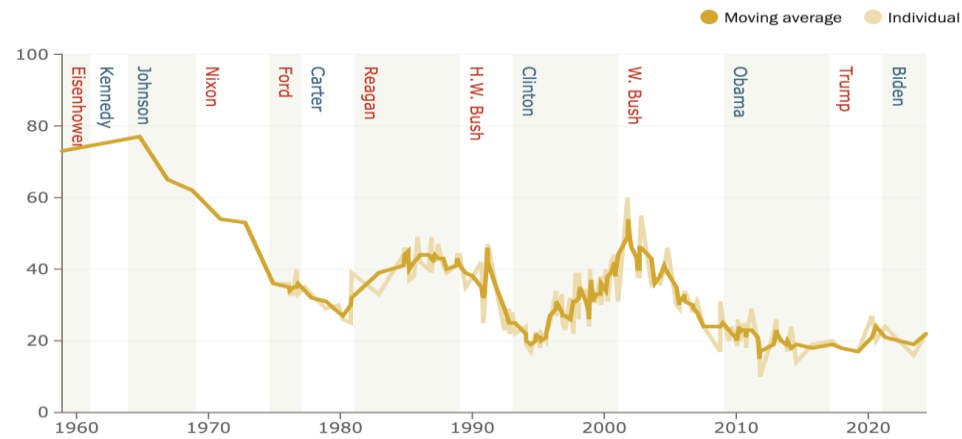
¹⁹⁷ Michael Caulfield, "QAnon and the Spread of Conspiracy Theories," *Journal of Digital Media & Policy* 11, no. 3 (2020): 325–339.

¹⁹⁸ Antoine Bousquet, *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity* (London: Hurst, 2009), 121–124.

¹⁹⁹ Norbert Wiener, *Cybernetics: Or Control and Communication in the Animal and the Machine* (Cambridge, MA: MIT Press, 1948), 95–102.

Public trust in government near historic lows

% who say they trust the government to do what is right just about always/most of the time



Sources: Pew Research Center, National Election Studies, Gallup, ABC/Washington Post, CBS/New York Times, and CNN surveys.

PEW RESEARCH CENTER

Figure 4: U.S. public trust in the federal government, 1958–2023 (Pew Research Center).

Widening Inequality: Work by economists such as Thomas Piketty²⁰⁰ and Branko Milanovic shows that the United States now exhibits income and wealth disparities that rival or even exceed those of the early 20th century.²⁰¹ The World Inequality Database (2022) confirms this trend, showing that the top 1% of earners now capture over 38% of national income. This percentage is compared to less than 23% in the 1970s.²⁰² Median wages have stagnated while housing, healthcare, and education costs have risen drastically.²⁰³ These economic dynamics generate both material deprivation and symbolic exclusion, which are grievances consistent with Ted Gurr's relative deprivation model.²⁰⁴ This is especially true amongst the Millennial and Gen

²⁰⁰ Thomas Piketty, *Capital in the Twenty-First Century* (Cambridge, MA: Harvard University Press, 2014), 302–310

²⁰¹ Branko Milanovic, *Global Inequality: A New Approach for the Age of Globalization* (Cambridge, MA: Harvard University Press, 2016), 87–92.

²⁰² World Inequality Database, “United States Income Inequality,” accessed August 2025, <https://wid.world/data>.

²⁰³ Economic Policy Institute, “The State of American Wages 2022,” accessed August 2025, <https://www.epi.org/publication/the-state-of-american-wages-2022>.

²⁰⁴ Ted Robert Gurr, *Why Men Rebel* (Princeton, NJ: Princeton University Press, 1970), 23–26.

Z generations, who are facing record-low prospects of upward mobility.²⁰⁵ Racialized economic disparities and geographically concentrated disadvantages often compound these effects.²⁰⁶ The existence of structurally marginalized communities, disproportionately excluded from institutional cures, create dynamics that mirror historical cases in which isolated impoverishment fueled wider unrest.

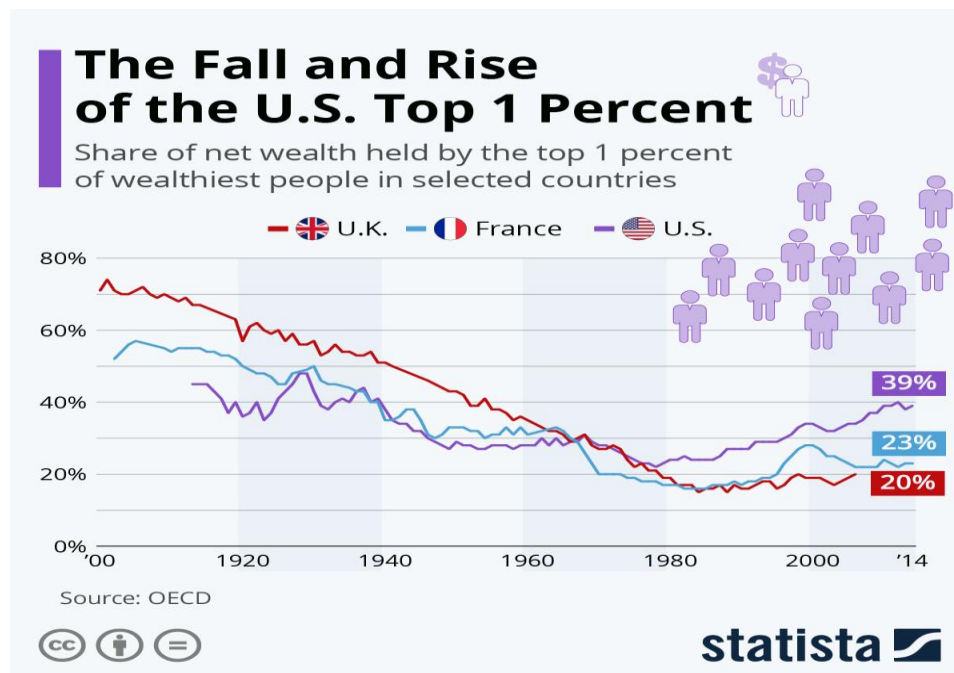


Figure 5: U.S. share of net wealth held by the top 1 percent (1989–2024) (OECD)

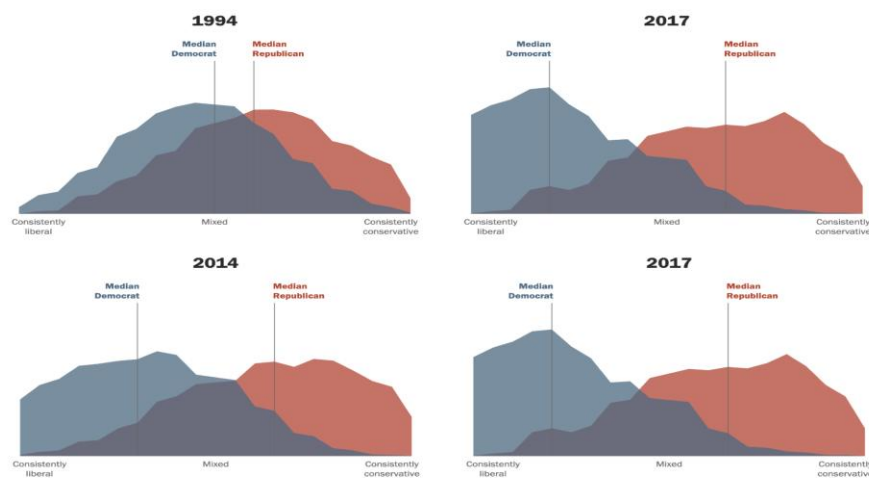
Polarization and Partisan Identity: Partisan affiliation in the contemporary United States increasingly maps onto cultural, geographic, and moral identities, forming conditions

²⁰⁵ Raj Chetty et al., “The Fading American Dream: Trends in Absolute Income Mobility Since 1940,” *Science* 356, no. 6336 (2017): 398–406.

²⁰⁶ William Darity Jr. and Darrick Hamilton, *From Here to Equality: Reparations for Black Americans in the Twenty-First Century* (Chapel Hill: University of North Carolina Press, 2018), 115–130.

similar to those of a "cold civil war".²⁰⁷ Algorithmic curation on social media platforms such as Facebook,²⁰⁸ X (Twitter), and YouTube deepens affective polarization and creates ideological echo chambers that prohibit consensus-building and cross-partisan deliberation. In cybernetic terms, this polarization represents a feedback failure. Opposing political subsystems process entirely different information inputs, which makes systemic recalibration difficult or even impossible.²⁰⁹ From a complexity theory lens, polarization operates as a reinforcing feedback loop that makes political systems weak and prone to continuous failures.²¹⁰

Figure 12. The Shift in the American Public's Political Values



Source: Reprinted from "The Shift in the American Public's Political Values," Pew Research Center, October 20, 2017, <https://www.pewresearch.org/politics/interactives/political-polarization-1994-2017>.

Note: Pew Research Center bears no responsibility for the analyses or interpretations of the data presented here. The opinions expressed herein, including any implications for policy, are those of the author and not of Pew Research Center.

Figure 6: Shifts in ideological overlap between Democrats and Republicans over time, showing growing polarization (source: Carnegie Endowment, 2023).

²⁰⁷ Lilliana Mason, *Uncivil Agreement: How Politics Became Our Identity* (Chicago: University of Chicago Press, 2018), 15–20.

²⁰⁸ Eytan Bakshy, Solomon Messing, and Lada Adamic, "Exposure to Ideologically Diverse News and Opinion on Facebook," *Science* 348, no. 6239 (2015): 1130–1132

²⁰⁹ Norbert Wiener, *Cybernetics: Or Control and Communication in the Animal and the Machine* (Cambridge, MA: MIT Press, 1948), 96–100.

²¹⁰ Melanie Mitchell, *Complexity: A Guided Tour* (Oxford: Oxford University Press, 2009), 201–205.

Militia Activity and Political Violence: Right-wing militia groups such as the Proud Boys and Oath Keepers have increased in size, coordination, and ideological intensity.²¹¹ These groups often use encrypted communication platforms to communicate across state lines.²¹² These groups' online recruitment and training are similar to networked insurgency models in modern conflict studies.²¹³ Their operational role in the January 6th Capitol riot demonstrates the potential for elite defection and organized rapid mobilization, which are two hallmarks in Skocpol's revolutionary framework.²¹⁴

Case Studies in U.S. Political Contention

January 6th Capitol Riot (2021): Although the January 6th Capitol riot was not a revolution in the classical sense of the word, the event did exhibit elements consistent with revolution. These combined elements were mass mobilization, a direct rejection of electoral legitimacy, elite encouragement, and a symbolic seizure of the seat of government. Media personalities and elected officials supported the false claim that an election was rigged. Skocpol's concept of elite defection is especially relevant here, as portions of the political elite openly endorsed narratives that undermined the electoral process. In Charles Tilly's framework, the

²¹¹ Kathleen Belew, *Bring the War Home: The White Power Movement and Paramilitary America* (Cambridge, MA: Harvard University Press, 2018), 201–215.

²¹² Davey Alba, “How the Proud Boys Use Messaging Apps to Coordinate Across States,” *The New York Times*, March 15, 2021.

²¹³ Mary Kaldor, *New and Old Wars: Organized Violence in a Global Era*, 3rd ed. (Cambridge: Polity Press, 2012), 87–90.

²¹⁴ Theda Skocpol, *States and Social Revolutions: A Comparative Analysis of France, Russia, and China* (Cambridge: Cambridge University Press, 1979), 16–20; U.S. House Select Committee to Investigate the January 6th Attack on the United States Capitol, *Hearing Transcripts*, 2022.

January 6th Capitol riot exploited a perceived political opportunity structure sparked by elite rhetoric and informational disinformation ecosystems.

Protests for Black Lives Matter (2020): Sparked by the murder of George Floyd by United States police, the Black Lives Matter protests mobilized millions of people within the United States and across the globe. Although the demonstrations were framed around demands for racial justice, the Black Lives Matter protests also articulated broader systemic critiques of capitalism, policing, and governance.²¹⁵ The Black Lives Matter movement's decentralized networked organizational model mirrors the patterns often described in social movement theory and demonstrates how digital social media platforms can quickly coordinate action even without centralized leadership.²¹⁶ These elements also challenge classical centralist models of revolutionary organization.²¹⁷

²¹⁵ Keeanga-Yamahtta Taylor, *From #BlackLivesMatter to Black Liberation* (Chicago: Haymarket Books, 2016), 47–65.

²¹⁶ Zeynep Tufekci, *Twitter and Tear Gas: The Power and Fragility of Networked Protest* (New Haven: Yale University Press, 2017), 23–45.

²¹⁷ Sidney Tarrow, *Power in Movement: Social Movements and Contentious Politics*, 3rd ed. (Cambridge: Cambridge University Press, 2011), 96–120.

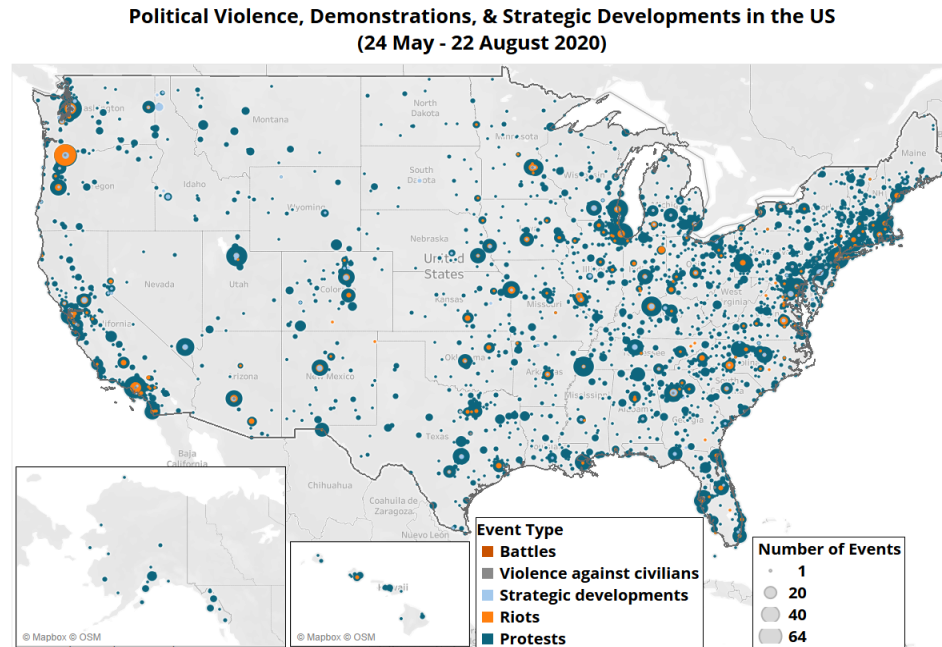


Figure 7: Monthly Black Lives Matter protest events across the U.S., 2020–2021 (ACLED, 2021).

Occupy Wall Street (2011): Despite being short-lived, the Occupy Wall Street movement reframed national public discourse on inequality and corporate power and inspired future protest movements. Occupy Wall Street's horizontal movements and refusal of institutional adoption reflect complexity theory's emphasis on emergent behavior, where relatively small-scale actions trigger emergent systemic effects on political discourse, policy debates, and activist networks.²¹⁸ Researchers can also trace the ideological legacy of Occupy Wall Street through later movements, including the Black Lives Matter protests and the rise of democratic socialist politics in the United States.²¹⁹

²¹⁸ Manuel Castells, *Networks of Outrage and Hope: Social Movements in the Internet Age*, 2nd ed. (Cambridge: Polity Press, 2015), 35–58.

²¹⁹ Micah Uetricht, *Strike for America: Chicago Teachers Against Austerity* (Chicago: Haymarket Books, 2014), 12–30; Nathan J. Robinson, “The Long Shadow of Occupy Wall Street,” *Current Affairs*, October 15, 2018, <https://www.currentaffairs.org/2018/10/the-long-shadow-of-occupy-wall-street>.

Although systemic rupture has not yet occurred in the United States, these cases show that the country has experienced numerous disruptions that have revealed significant cracks in its political, social, and economic infrastructure. These might be considered stress tests or foreshocks on a delicate system as seen in terms of complexity theory.

Theoretical Application and Synthesis

Gurr's Deprivation Model: In the contemporary United States, there is a contradiction between the American meritocratic ideal and lived realities. Vast student debt, wealth inequality, and poor healthcare fuel cross-demographic grievance.^{220 221} These grievances are especially relevant for Millennials and Gen Z, who report historically low trust in the United States' institutions.²²² In this case the relative deprivation is both material and cognitive. Real-time social media comparisons are amplifying unmet expectations. Economic and symbolic exclusion, compounded by systemic barriers and generational inequality, widens the pool of citizens who are receptive to radical political transformation.²²³

Skocpol's Structural Theory: Although her framework focused on agrarian bureaucracies, Skocpol's larger observation that revolutions happen when states cannot adjust to pressure from below is noteworthy in the case of the United States.²²⁴ Institutional ossification

²²⁰ Thomas Piketty, *Capital and Ideology* (Cambridge, MA: Belknap Press, 2020), 456–460

²²¹ Branko Milanovic, *Global Inequality: A New Approach for the Age of Globalization* (Cambridge, MA: Harvard University Press, 2016), 125–130.

²²² Pew Research Center, “Millennials overtake Baby Boomers as America’s largest generation,” March 1, 2020, <https://www.pewresearch.org/fact-tank/2020/04/28/millennials-overtake-baby-boomers/>.

²²³ Branko Milanovic, *Global Inequality*, 135–140.

²²⁴ Theda Skocpol, *States and Social Revolutions: A Comparative Analysis of France, Russia, and China* (Cambridge: Cambridge University Press, 1979), 28–32.

and elite gridlock present a similar dynamic in the United States.²²⁵ For instance, the January 6th riot indicates that the elite divide can break down state cohesion even without a complete collapse. Furthermore, Skocpol's study of social movements helps us understand how coordinated grassroots initiatives, like activist networks, community organizations, and unions, may influence revolutionary paths.²²⁶

Cybernetic and Complexity Models: From a cybernetic perspective, the United States' political system is an example of signal degradation.²²⁷ Misinformation and polarized partisan media distort feedback and produce delayed policy responses. Taleb's theory of fragility suggests that the system can appear stable while approaching a critical threshold or an invisible tipping point.²²⁸ Complexity theory warns that even minor disruptions, such as economic shocks or contested elections, can cause systemic breakdown.^{229 230}

Contemporary United States political unrest shows that the country is no longer fully protected from the processes that have historically driven revolutions elsewhere. The structural, informational, and symbolic conditions for systemic breakdown are more visible now than at any point in the last century. This position does not guarantee a revolutionary outcome in the United States. However, it does undermine the long-standing belief that the United States is uniquely resistant to this sort of political change. In a complex, networked, and polarized society, the path

²²⁵ Skocpol, *States and Social Revolutions*, 30–32; see also Peter Turchin, *Ages of Discord: A Structural-Demographic Analysis of American History* (Chaplin, CT: Beresta Books, 2016), 415–418.

²²⁶ Skocpol, *States and Social Revolutions*, 395–410; see also Sidney Tarrow, *Power in Movement: Social Movements and Contentious Politics*, 3rd ed. (Cambridge: Cambridge University Press, 2011), 25–30.

²²⁷ Antoine Bousquet, *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity* (London: Hurst, 2009), 92–95.

²²⁸ Nassim Nicholas Taleb, *Antifragile: Things That Gain from Disorder* (New York: Random House, 2012), 25–30.

²²⁹ Yaneer Bar-Yam, *Dynamics of Complex Systems* (Reading, MA: Addison-Wesley, 1997), 15–20

²³⁰ Melanie Mitchell, *Complexity: A Guided Tour* (Oxford: Oxford University Press, 2009), 310–315.

to revolution may not look like the classical revolutions of 1789 or 1917, but the underlying logic of state instability remains quite relevant. Even though the United States has not undergone a classical revolution, its modern political environment shows multiple early warning signs familiar to structuralist and complexity-based models. Declining institutional trust, growing inequality, identity-driven polarization, and recurrent mass mobilization suggests a political system under mounting stress. After analysis, American exceptionalism could be understood not as a persistent shield but as a historically dependent condition now susceptible to breakdown.²³¹ In an era where revolutions may manifest as networked insurgency, institutional breakdown, or intellectual warfare, the United States may be transitioning from an "exception" to a case in motion; a society whose political stability depends on variables increasingly beyond its ability to control.^{232 233}

²³¹ Peter Turchin, *Ages of Discord: A Structural-Demographic Analysis of American History* (Boulder: Berghahn Books, 2016), 412–418.

²³² Bousquet, *The Scientific Way of Warfare*, 95–100

²³³ Taleb, *Antifragile*, 25–30.

Chapter Five - Discussion

This dissertation's comparative analysis of classical and scientific models of revolution is one of its principal contributions. Classical theorists such as Karl Marx,²³⁴ Vladimir Lenin,²³⁵ and Theda Skocpol²³⁶ claim that the main drivers behind revolutionary change are material circumstances, class conflict, and state structures. Their frameworks are interpretive, historically grounded, and aimed at revealing underlying social contradictions. Marx's historical materialism remains a robust framework for understanding how systemic crises can emerge from contradictions within capitalist modes of production.²³⁷ Vladimir Lenin's focus on vanguard parties highlights the centrality of elite agency and organizational form in directing revolutionary movements.²³⁸ Skocpol's structuralist theory emphasizes the states' vulnerability when bureaucratic, economic, and international pressures combine to overwhelm institutional durability.²³⁹

By contrast, scientific and technocratic models, particularly ones based in cybernetics, complexity theory, and political risk modeling, conceptualize revolution less as the result of class dynamics or elite disloyalty and more as the emergent behavior of complex systems. Cybernetic models frame states as feedback-driven systems that depend on stability and responsiveness for survival. Complexity theory interprets revolutions as nonlinear breakdowns caused by

²³⁴ Karl Marx, *The Communist Manifesto*, ed. Friedrich Engels (London: Penguin, 2002), 29–35

²³⁵ Vladimir Lenin, *What Is to Be Done?* (1902; Moscow: Progress Publishers, 1969), 24–28.

²³⁶ Theda Skocpol, *States and Social Revolutions*, 22–30.

²³⁷ Marx, *Capital: A Critique of Political Economy*, vol. 1 (New York: Penguin Classics, 1990), 185–190.

²³⁸ Vladimir Lenin, *State and Revolution* (1917; Moscow: Progress Publishers, 1969), 45–50.

²³⁹ Theda Skocpol, "Social Revolutions and Structural Analysis," *Comparative Studies in Society and History* 22, no. 4 (1980): 387–410.

cumulative shocks and tipping points.²⁴⁰ Political risk modeling, as used by the CIA's Political Instability Task Force and projects such as Polity IV, V-Dem, and Freedom House, aims to operationalize these concepts by assigning probabilistic scores for instability.²⁴¹ These frameworks provide flexibility and quantitative accuracy but often remove the historical importance and normative critique that classical models offer.

The comparative strength of these scientific and technocratic models is in their ability to complement each other. Scientific models emphasize early warning indicators and system fragility, which makes them helpful in identifying when and how instability may escalate. Classical models, however, remain essential for explaining why revolutions occur. These models trace the structural grievances, contradictions, and agency that scientific models often diminish into variables. A hybrid methodology integrating structural diagnosis with predictive analysis is the most promising way forward.

Yet, predictive models suffer from significant epistemological and practical limitations. Real-world political systems are path-dependent and adaptive, which makes them resistant to the linear forecasting that some scientific paradigms use. Outlier events or "Black Swan" events, as coined by Nassim Taleb, such as the Arab Spring, the Covid-19 pandemic, or the January 6th Capitol riot, are examples of how sudden and unpredictable shocks can transform political trajectories in ways that no model could predict.²⁴² Lars-Erik Cederman and Kritin Skrede Gleditsch have demonstrated that predictive conflict modeling is extremely sensitive to initial

²⁴⁰ John H. Miller and Scott E. Page, *Complex Adaptive Systems: An Introduction to Computational Models of Social Life* (Princeton, NJ: Princeton University Press, 2007), 45–52.

²⁴¹ Barbara Geddes, Joseph Wright, and Erica Frantz, *Autocratic Breakdown and Regime Transitions: A New Dataset* (Perspectives on Politics 10, no. 2, 2012): 247–274

²⁴² Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007), 20–25.

conditions.²⁴³ This sensitivity produces models that appear accurate in retrospect but lack real-time application.

Equally as problematic are the datasets that predictive models rely on. Projects such as Polity IV or Freedom House convert Western and liberal democratic ideas of legitimacy, and apply this conversion across diverse political contexts. This application of data sets can distort assessments.²⁴⁴ Even in the case of the United States, these indicators can blur structural inequalities or cultural dynamics that researchers cannot easily capture through quantitative measures. Another issue is the overreliance on certain metrics. GDP per capita, regime duration, or institutional scores neglect cultural and symbolic drivers that enliven revolutionary movements.²⁴⁵ Examining James C. Scott's notion of infrapolitics reminds us that much resistance occurs beneath the surface.²⁴⁶ These hidden transcripts and micro-practices are invisible to algorithmic surveillance and predictive risk models.

Predictive models also risk performativity. If states and other political actors know the parameters of risk assessment, they can change their behaviors in ways that can undermine the model's assumptions. This recursive loop is similar to the observer effect in physics and severely complicates the usefulness of predictive tools in governance. Perhaps even more problematic is that the act of prediction may justify preemptive repression. States may suppress dissent, increase and expand surveillance, or militarize policing under the guise of "stability maintenance". This "stability maintenance" ironically accelerates the instability that predictive

²⁴³ Cederman and Gleditsch, "Predictive Modeling of Political Conflict," *Journal of Peace Research* 53, no. 2 (2016): 215–230.

²⁴⁴ Marshall and Jagers, *Polity IV Project: Political Regime Characteristics and Transitions, 1800–2018* (Vienna: Center for Systemic Peace, 2019).

²⁴⁵ Freedom House, *Freedom in the World 2023* (Washington, DC: Freedom House, 2023).

²⁴⁶ Scott, *Domination and the Arts of Resistance: Hidden Transcripts* (New Haven: Yale University Press, 1990), 33–37.

systems were meant to prevent.²⁴⁷ Scholars such as Ruha Benjamin and Shoshana Zuboff have demonstrated how algorithmic governance and surveillance capitalism install power by changing uncertainty into an object of control.²⁴⁸

All of these issues point to the ethical tension at the center of the study of revolution: the urge to comprehend revolutions and the urge to control them. Classical theorists in the Marxist tradition understood theory as an emancipatory practice, a way to reveal contradictions to enable transformative change.²⁴⁹ Scientific methods, however, are often partnered with technocratic governance and aim to prevent breakdown, maintain order, and stabilize regimes. Prediction then risks becoming a tool for domination and control instead of preventing.

There are significant ethical considerations when it comes to scientific predictive modeling. Predictive policing and algorithmic governance blur the line between governance and oppression. The more analysts model revolution as risk, the more dissent itself becomes securitized and treated as a problem to manage rather than a form of democratic expression. Systems thinking also warns us that over-intervention in complex systems can often lead to contrary outcomes. Charles Perrow's theory of "normal accidents" shows how tightly coupled systems break down because attempts at control increase instability.²⁵⁰ Excessive reliance on algorithmic prediction may increase the risk of compounding risks rather than reducing them.

Democracies pose a unique paradox for revolutionary analysis. On the one hand, they provide institutional mechanisms to respond to grievances, such as elections, free expression,

²⁴⁷ Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code* (Cambridge: Polity Press, 2019), 45–49.

²⁴⁸ Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (New York: Public Affairs, 2019), 21–28.

²⁴⁹ Karl Marx, *Critique of the Gotha Program*, trans. Martin Nicolaus (New York: International Publishers, 1970), 11–14.

²⁵⁰ Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (Princeton: Princeton University Press, 1999), 3–12.

and civil liberties. These mechanisms should theoretically diffuse the pressures of revolution. On the other hand, when people perceive these mechanisms as illegitimate or dysfunctional, they may cause a more profound sense of betrayal and alienation than under authoritarian regimes, where this repression and betrayal are already expected. Looking at Claude Lefort's description of democracy, he says democracy is an "empty place" of power. His description captures this paradox. Democratic legitimacy is always unstable and subject to contestation and appropriation.²⁵¹ The January 6th Capitol riot demonstrates how even democratic symbols and rituals such as the United States Capitol and certification of free elections, can become the settings for revolutionary claims.

Furthermore, democracy's legitimacy may hide more profound structural inequality. Nancy Fraser's critique of neoliberalism²⁵² and Keeanga-Yamahtta Taylor's analysis of racial capitalism²⁵³ show how democratic institutions may reproduce system hierarchies. These democratic institutions offer formal inclusion but deny substantial equality. Democracies may be more vulnerable than previously assumed. This assumption is especially true under conditions of declining trust and widening inequality. The same institutions designed to mediate conflict become targets when legitimacy is lost.²⁵⁴

The future of revolutionary analysis will depend on the connection between qualitative interpretation and quantitative modeling. Machine learning and artificial intelligence promise never-before-seen forecasting abilities, but as Kate Crawford and Meredith Whitaker argue,

²⁵¹ Claude Lefort, *The Political Forms of Modern Society: Bureaucracy, Democracy, Totalitarianism*, trans. Michael Seem (Cambridge, MA: MIT Press, 1986), 88–91.

²⁵² Nancy Fraser, *Fortunes of Feminism: From State-Managed Capitalism to Neoliberal Crisis* (New York: Verso, 2013), 102–106.

²⁵³ Keeanga-Yamahtta Taylor, *From #BlackLivesMatter to Black Liberation* (Chicago: Haymarket Books, 2016), 45–49.

²⁵⁴ Robert A. Dahl, *On Democracy* (New Haven: Yale University Press, 1998), 180–183.

algorithms are not neutral.²⁵⁵ Algorithms reproduce the biases of the data they use and the biases of their developers.²⁵⁶ If these tools are to serve democratic understanding instead of authoritarian control, they need to be transparent and accountable.

The study of revolution must also widen its scope to account for the emerging modes of contention. Climate change, economic unpredictability, and the digital divide will increasingly shape political unrest in the future.²⁵⁷ Future revolutions will not resemble the barricades of Paris or the marches of Moscow but will instead take the form of infrastructural sabotage, cyberwarfare, or networked insurgencies. All of these are likely being coordinated through decentralized digital platforms. Analysts and scholars must continue to be attentive to these evolving forms of resistance. They must recognize that the modes of breakdown shift with the technological and environmental conditions.

In conclusion, we should understand revolution not as a relic from the past but as a dynamic phenomenon that continuously adapts to new realities.²⁵⁸ Neither metrics alone nor theory in isolation can fully capture the complexity of revolution. The most promising path to understanding lies within an interdisciplinary synthesis, combining classical theory's historical and normative insights with the predictive power of scientific models. Actors must carry out this hybridization while remaining aware of the ethical stakes and epistemological limits. Ultimately, the job is not just to measure the likelihood of revolution. However, it is to reflect on what it

²⁵⁵ Kate Crawford and Meredith Whittaker, *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence* (New Haven: Yale University Press, 2021), 15–20.

²⁵⁶ P. W. Singer and Emerson T. Brooking, *LikeWar: The Weaponization of Social Media* (Boston: Houghton Mifflin Harcourt, 2018), 112–117.

²⁵⁷ Michael T. Klare, *The Race for What's Left: The Global Scramble for the World's Last Resources* (New York: Metropolitan Books, 2012), 45–50.

²⁵⁸ Charles Tilly, *From Mobilization to Revolution* (New York: Addison-Wesley, 1978), 189–192.

means to study revolution in an era of surveillance, uncertainty, and systemic fragility, all while remaining responsible.

Chapter Six - Conclusion

This dissertation has investigated how scholars might currently study revolution, including in the case of the contemporary United States, by drawing on a wide range of classical theories, scientific models, and interdisciplinary frameworks. At its core, this dissertation asked how academic disciplines evaluate the likelihood of revolution, and how these frameworks can be applied to the contemporary United States. As the analysis showed, the answer is not a singular theory, its multiple theories. There is no one paradigm, whether that is Marxist class conflict,²⁵⁹ Skocpol's structuralist lens,²⁶⁰ or cybernetic risk modeling, that can completely capture the complex dynamics of revolutionary potential in a contemporary liberal democracy. Instead, there is a need for a hybrid, reflexive, and context-sensitive approach that combines explanatory depth with adaptive anticipation.

In the beginning, this dissertation traced how the classical theorists gave interpretive depth alongside normative critique. Karl Marx highlighted how contradictions within capitalism create systemic crises. Vladimir Lenin emphasized elite agency and organization. Theda Skocpol demonstrated how state breakdown creates opportunities for revolution and realignment. Based in past revolutions, these frameworks remain essential for diagnosing the continued pressure of inequality, elite divide, and institutional decay within the United States. By contrast, technocratic and scientific models provide different tools. Cybernetic frameworks explain how feedback disruptions and information chaos can destabilize governance. Complexity theory stressed tipping points, state fragility, and nonlinear shocks. Risk indicators and predictive algorithmic

²⁵⁹ Karl Marx, *Capital: Volume 1* (New York: Penguin Classics, 1990), 45–50

²⁶⁰ Theda Skocpol, *States and Social Revolutions* (Cambridge: Cambridge University Press, 1979), 1–15.

modeling operationalized these insights and provided early warning systems for governments and intelligence agencies. In the context of the United States, these models help frame circumstances such as declining institutional trust, polarization, and digital misinformation as systemic vulnerabilities. The empirical case study, including the January 6th Capitol riot, the Black Lives Matter protests, and Occupy Wall Street, revealed the strengths and limitations of both traditions. Classical theories helped explain deep-rooted structural grievances and elite divides, and scientific models highlighted the dynamic and quick processes of mobilization and escalation. However, neither was sufficient on its own. The United States appeared less as an "exceptional" stable democracy and more as a state experiencing systemic disequilibrium. Small shocks can echo disproportionately across a fragile institutional order.

While the classical approach uses the analysis of history, inequality, and normative critique, the scientific approach expands the analytical scope to real-time forecasting and systems modeling. When used together, these approaches create a more nuanced and layered understanding of revolution. This dissertation also advances an important ethical critique. Predictive models provide operational insights, but they also run the risk of changing explanation into control. Algorithms, surveillance technology, and risk indicators are not neutral. These can reinforce authoritarian practices and conceal the cultural dimensions of dissent. Scholars such as James C. Scott and Shoshana Zuboff state that reducing the dynamics of revolution to technical risk management may embolden domination instead of advancing understanding. This dissertation advances the interdisciplinary debate by reframing revolution not as just a calculable probability, but as a political, cultural, and epistemological occurrence. This dissertation urges scholars to confront the tensions between the desire to predict revolution and the responsibility needed to understand it ethically and historically.

This dissertation also examines the idea of American exceptionalism. Despite being historically viewed as immune to revolution, the contemporary United States shows multiple significant stress indicators. These indicators include declining trust in institutions, exponential wealth inequality, racial violence, and extraordinary political polarization. The case studies show that no single rupture has yet resulted in massive political change. However, the conditions align with early warning signs identified in both classical and scientific theories. The contemporary United States is best understood not as an exception but as a late-stage liberal democracy confronting the limits of its structure. The United States builds its resilience on its constitutional and cultural traditions. These traditions also inhibit adaptive change. It remains uncertain whether current tensions will manifest into a revolution, a managed transformation, or prolonged instability. But this is a reminder that revolutions are always contingent, emergent, and historically situated.

This dissertation identifies several avenues for further scholarship. One avenue is to extend the comparison and testing of hybrid frameworks across different regions. Testing these frameworks in the Global South and the European Union could clarify how colonial legacies and civil society networks shape revolutionary potential differently. Scholars must pay more attention to algorithmic radicalization, disinformation ecosystems, and the role of digital platform capitalism in structuring grievance, mobilization, and identity. Climate and infrastructure are additional important avenues that need to be studied more in the future. Future revolutions will likely be triggered less by ideology and more by environmental collapse, cyber-attacks, or infrastructure breakdown.²⁶¹ Current models rarely capture these factors. Scholars must also question how states and corporations use predictive tools. Do these tools protect

²⁶¹ Klein, *This Changes Everything*.

stability, or do they justify repression? What responsibilities do academics have when their models shape policy? Effective study and analysis of revolution will require collaboration across political science, history, sociology, data science, and ethics. This collaboration will help ensure that models are rigorous and responsible.

Ultimately, this dissertation has argued that revolution is not a relic of the past but a dynamic force adapting to new social and technological realities. Contemporary liberal democracies are not immune to revolution, and the United States provides a striking test of this claim. The greatest challenge for studying revolution is not just making predictions more refined. It is the challenge of balancing prediction with awareness of risks and balancing analysis ethically. Prediction must not supersede understanding, and control must not replace critique. If you consider revolutions as acts of imagination as much as they are structural breakdowns, then scholars must study them not only as risks to manage but also as possibilities to be understood. In a modern era of instability and international uncertainty, this task is not just academic but also profoundly civic. How we think about revolution shapes how societies respond to crises. Do they respond with fear and control, or do they respond with creativity and transformation? This dissertation calls for the latter.

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