# Foucault, Neoliberalism, Algorithmic Governmentality, and the Loss of Liberal Culture

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## Neoliberalism as a New Epoch of Historical Capitalism

Even by 1978, Michel Foucault was aware of claims that *neoliberalism* was not anything new or different from *liberalism*, and that "hidden beneath the appearances of a neo-liberalism," there was "just a way of establishing strict market relations in society" or a "cover for a generalized administrative intervention by the state."[1] These responses "ultimately make neo-liberalism out to be nothing at all, or anyway, nothing but always the same thing, and always the same thing but worse."[2] Against these dismissals, Foucault contended that neoliberalism was a new, significantly different, and epoch- making, phase of historical capitalism.

Understanding liberalism as emerging around 1750 and continuing, more or less, as a dominant mode of social organization until the 1970s, Foucault felt that neoliberalism challenged the three main characteristics of liberalism: the marketplace as a site that delivered the "natural" truth of prices, a place of "veridiction," wherein supply-demand equilibrium would reveal the true value of commodities; a State that limited its involvement in the marketplace based on the notion that greater social utility would result from the State's self-restraint; and a geography, wherein Europe (later the West, more broadly) was considered to be a "region of unlimited economic development" that could expand and control the "world market."[3] Additionally, liberalism construes the need for "already given political [civil] society" as a necessary mediating feature that would both separate the State from the marketplace, while also allowing for their buffered inter-connection.[4]

Neoliberal perspectives, in contrast, make no claims for the marketplace's naturalism, the State's inactivity, or any need for a prophylactic civil society. Instead, advocates for neoliberalism see competition as an artificial "structure with formal properties," one that *can* and *must* be created, established, and promoted by the State's "permanent vigilance, activity, and intervention," to ensure "economic regulation through the price mechanism."[5] Unlike liberalism, which saw the marketplace as ultimately harmonizing and equalizing, satisfying the needs of both parties through the act of exchange, so long as it remained free from the corrupting influence of governmental actors, neoliberalism has a "theory of pure competition." While liberalism told itself that all could prosper in a commercial society, neoliberalism is not merely comfortable with the presence of consequential inequality after commodity exchange, it often seeks the creation of disparity in order to spur disruptive innovation. Unlike Joseph Schumpeter, who felt that cyclical downturns would help motivate entrepreneurial investment, neoliberalism, in Foucault's eyes, wants the State to catalyze permanent transformation without regard to the business cycle. Neoliberals are reluctant to

accept the temporality of the market's internal rhythms, which they believe to be yet another form of naturalism. Instead they want the State to endlessly promote the marketplace.

Neoliberals do not share classic liberalism's fear of an overly intrusive State. Instead, they fear the reverse, contending that the State has become too sedentary and submissive before a bureaucracy that was historically created to contain and domesticate its (absolutist) desire for action. Because neoliberal economists saw a capitalist market in crisis from the 1920s, they sought to reawaken the State, by infusing it with the marketplace's activity, so that the State could be used, in turn, to reinvigorate the capitalist market by expanding its domain to civil society and other lifeworld realms that were previously incompletely financialized.

Foucault's definition of neoliberalism as the search for an active State, rather than liberalism's passive or recused one, helps answer what has often been felt as a riddle about the recent period as dominated by neoliberal policies. On the one hand, neoliberalism insists on the necessity of relying on the competitive market as the normative model for all institutions, while on the other, it vastly amplifies the State's institutional violence, as seen in the United States with the renewal of imperial adventures and punitive domestic acts, not least with the onset of the prison industrial complex and aggressive metropolitan policing against non-white citizens and denizens.[6]

In their project to reconstitute the State, Foucault claimed that neoliberals' overarching "problem[atic]" was "how the overall exercise of political power can be modelled on the principles of a market economy." Neoliberalism is, therefore, a "government style," not its absence, as classic liberalism insisted. Here Foucault uses the term "government" in a wider way, "not in the narrow and current sense of the supreme instance of executive and administrative decisions in State systems, but in the broad sense . . . of mechanisms and procedures intended to conduct [wo]men, to drive their conduct, to conduct their conduct."[7] Neoliberalism is not merely a set of economic beliefs about capitalism, but is instead to be seen in a larger sense as a sociocultural project that seeks to reconfigure the State, civil society, and marketplace trinity by directing its attention to that which had separated the State from the marketplace: civil society. Neoliberals sought to erase liberalism's public and private distinctions, along with its attendant features of a disinterested public sphere, bourgeois sociability, and cultural institutions, exemplified  in the early nineteenth-century ideal of an autonomous research university and an enlightened republic of letters. As we will see, the end of liberal culture has implications for the function of contemporary American writing, especially for the form of the novel, as a mode of cultural expression that, from the eighteenth century onwards, emerged from and often exemplified liberal civil society.

If neoliberalism is understood as the replacement of liberalism's ideal of *homo oeconomicus*, human as civilizing commodity exchanger, in favor of what we might call *homo astutus*, human as cunning speculator and competitive entrepreneur, one fundamentally hostile to civil society, the challenge that Foucault poses in *The Birth of Biopolitics,* his 1977–1978 lecture series on neoliberalism, is three-fold.

Firstly, Foucault suggests that much of his past writing will have little con- temporary efficacy, as he argues that we have moved to a new dominant mode of power that is significantly different from what most of his prior work has described. Throughout the 1970s, Foucault elucidated a large-scale historical sequence that contrasted the historic regime of what he called sovereignty from its replacement, which he initially called discipline, but eventually

also named as liberalism. The sovereign system was one fundamentally grounded on issues of repressive juridicality, especially with regards the relationship between the sovereign and a *subject of rights*. The liberal system was based on productive truth-formation, what Foucault called veridiction. Liberalism was grounded on a "set of practices and a regime of truth" that created "an apparatus (*dispositif*) of knowledge-power," wherein the naturalized "division between true and false" established a "transactional reality" (or social construction) that produced a different form of subjectivity, a subject based on interests rather than rights.[8] This historical shift involved a different target, operation, and set of tactics. While sovereignty worked on the outside (of the body, for instance) and dealt with acts, liberalism shifted gears to work on the inside (of the soul or psyche) and construct identities based on binarized oppositions, such as that between normality and deviance.

Neoliberalism, according to Foucault, dispenses with liberalism's verdicatory project in favor of a competitive ecology. If we accept Foucault's periodization, then our neoliberal moment is one that is neither primarily juridical nor epistemological in orientation, but agonistic in ways best characterized by game theory's notion that actors must calculate their selfish activity based on the tactical assumption that all other actors are simultaneously calculating how best to maximize their self-interest. If we exist in a neoliberal lifeworld that is not based on liberalism's regime of truth formation, then the often-elegiac commentary on the current condition of a post-truth, post-pluralist consensus society is wrong to assume that a damaged liberalism might still be repaired. Instead, Foucault suggests that this entire formation has become largely superseded within the contemporary reconfiguration of the capitalist world-system. Hence, if Foucault claimed that liberal power operated in *productive*, rather than the *repressive* modes dominant in the age of sovereignty, his discussion of neoliberalism as the new dominant implies *the need for yet a new understanding of power*, one that is neither repressive, nor productive, but something else entirely. In this search, Foucault's prior writings are mainly useful more for providing terms of contrast in order to better discern the shape of the emerging contemporary.

Secondly, Foucault's discussion of neoliberalism's competitive-power raises the question not only of culture in general, but literary form specifically. While Foucault rarely ventured into literary studies, his understanding of genre treats it by highlighting an exemplary form as enmeshed within the dominant tendencies of each period. Considering tragedy, he saw it as "always, essentially…about right…there is a fundamental, essential kinship between tragedy…and public right" and, inferentially, the question of sovereignty.[9] In a period when sovereignty is no longer dominant, another cultural form emerges — the novel: "there is probably an essential kinship between the novel and the problem of the norm."[10]

Foucault's assumption about the links between liberalism and the novel mirror several influential accounts of the novel, such as those by Ian Watt and Lionel Trilling.[11] Similarly, the claim matches accounts that the novel helped enable liberalism's constellation and manner of constructing group and individual subjectivity. Extending Marx and Engels's discussion in *The German Ideology* (1932) of civil society as an "illusory community" [*illusorische Gemeinschaftlichkeit*], Benedict Anderson influentially argued that the novel's rise within print capitalism helped bind readers together within a liberal, national, imagined community.[12] No matter its formal differences or periodizing styles, the novel magnetized and cemented readers together into a collective identity through their shared reading experience. Within American literature, the goal of creating a "Great American

Novel" became a particular shibboleth throughout the twentieth century as part of the search for the cultural glue that could hold together a liberal pluralist consensus for a nation of immigrants. On the other hand, the notion that the novel was different from prior forms of long fiction due to its modelling and rehearsing of the liberal subject's developmental interiority through examples like the *Bildungsroman* has been commonsensical ever since Georg Lukács's claim that the novel is separate from epic because "the novel tells of the adventure of interiority, the content of the novel is the story of the soul that goes to find itself."[13]

If the novel stands as one of liberalism's great cultural achievements, as a form hewn from and indicative of its intrinsic tensions between self and society, then what is its fate in a neoliberal era that dispenses with that contradiction? Does neoliberalism portend the end of the novel-form as a cultural dominant, or, at least, the novel as still conventionally practiced, in favor of other genres of expression, media, and manner of organization? Similarly, does neoliberalism also put into question the ideal of the liberal university and its seminar room as a site that both stages the expression of individuality and rehearses the process of coming to amiable consensus through conversational interplay? Can these institutions and cultural forms hold together in the same way as formerly if the motivating compacts of liberalism are no longer upheld?

Finally, do Foucault's claims from the 1970s remain useful in the current moment? Should they be discounted or extended in ways unforeseen by even Foucault himself? Does the recent return of the far right, epitomized by Trump's US election and the UK's Brexit vote mark a periodizing end to comfort with globalizing markets as calls emerge for neo-mercantilist, insular ethno-nationalist protectionism that seem directly to replace neoliberalism's commitment to the free trade of goods, services, and labor? Or are these *cri de coeurs* simply a tactical deployment that looks to smash definitively the last remnants of liberalism's civil society? Is anti-globalism just a means to further erode the rational-critical public sphere's counterweight to the State's activity by accelerating a politics that casts suspicion on institutional truth claims based on the expertise of a disinterested bureaucracy and deflates the university's discussion protocols through social media trolling?

In what follows, I will contend that the relatively recent implementation of advanced computational equations, activities clustered under the name "algorithm," not least within the retail and service sectors of experiential consumption, including social media platforms, indicates the arrival of a new form or phase of neoliberalism, through what Antoinette Rouvroy calls algorithmic governmentality, wherein she yokes Foucault's insights on neoliberalism with an awareness of the role of big data.[14] The characteristics of this new phase could not be easily charted by Foucault in the 1970s, as he was not in a historical position to be fully aware of the new computational techniques resulting from the massification of increasingly cheaper and more powerful hardware and software, and their deployment in State-assisted deregulation and financial derivatives. Hence any search for our current form of neoliberalism means that while Foucault's writings from the 1970s might be a necessary starting point, they no longer remain a sufficient conclusion. To paraphrase Fredric Jameson, we need to comprehend the emerging cultural logic of late neoliberalism in its algorithmic modality. Here I want to pursue Rouvroy's arguments to see what impact they may have on our registration of contemporary American writing and culture. Since Rouvroy's arguments self-consciously deploy Foucault's terminology, which

he, in turn, used as the framework for his comments on neoliberalism, it is necessary to revisit his concepts of government and governmentality as he developed them through the mid to late 1970s Collège de France lectures to best gauge his own understanding of neoliberalism.[15] While Foucault's arguments have been a frequent touchstone for many discussions of neoliberalism, they have not been clearly deployed, for reasons explained in the text to follow, even by his otherwise dedicated advocates. Therefore, a somewhat patient exegesis of Foucault's claims can still provide a fruitful direction for considering the state of American writing and culture.

## Situating Governmentality

Despite prior discussions of governmentality, a brief look backwards is necessary for several reasons before we can fully understand Foucault's comments about the rise of neoliberalism and Rouvroy's about neoliberal algorithmic politics and culture.[16]

Firstly, until the complete publication of his posthumously edited lectures, anglophone critics have often been misled by their unavoidable partial and incomplete reception of Foucault's work throughout the 1970s. As a consequence of the lectures' inaccessibility, scholars were left to extrapolate larger claims from highly discrete publications of single lectures outside of their context within an annual set of usually twelve lectures, which Foucault clearly orchestrated as a coherent unit. The deduction of the whole from scattered parts has meant that many prior discussions of the lectures' claims depended on assumptions that could not be firmly grounded once their larger horizon over several years was finally made visible.

Even with these lectures now almost completely before us, important caveats remain. In what cannot be over-estimated, Foucault never brought these inquiries into (book) publication. Between 1976 and 1980, Foucault used the lectures to investigate an aspect of social management that he considered to be categorically different from the techniques of discipline, which he had mainly detailed in *Discipline and Punish* and *The History of Sexuality, Volume 1*.[17] Yet this project was going to be difficult to perceive for his print readers, as it remained largely absent from his publications. The last chapter of *History of Sexuality, Volume 1* is mainly a revision of his final lecture from the 1975–1976 series, *Society Must Be Defended*, where he announces a new concept of *biopower*.[18] Because Foucault uses that chapter to mark the distinction between the early modern sovereign's right to take life against the modern production of life, many readers would have necessarily assumed that the schematic was simply meant to reinscribe the prior pages' opposition of (absolutist) sovereign repression to disciplinary production of deviance.

The intervening lectures make clear, however, that this discussion of biopower was meant to *announce* and *initiate* Foucault's exploration of a set of techniques that are distinct from discipline in fundamental ways. Hence, in terms of the monograph's coherence, the last chapter is misplaced and might have been better left out entirely. Nonetheless, this turn to something that is not discipline began a sequence that led up to and included his lectures on neoliberalism, and continued into the following year's lectures, published as *On the Government of the Living* (1979–1980).

After the 1976 publication of *History of Sexuality, Volume I*, Foucault's next book publication, in 1984 (the year of his death) was the second volume of *History of Sexuality*, named *The Use of Pleasure*. Translated into English the next year, this volume begins by acknowledging an

entirely different turn from the ones "his auditors at the Collège de France" would have expected and had the "patience to wait for its [published] outcome."[19] From 1980, the lectures entitled *Subjectivity and Truth* signal his research's turn to post-classical Greek and Roman treatments of the ascetic self that ran, alas, until his premature decease. In other words, not only does Foucault use *The Use of Pleasure* to announce the end of his sequence from 1975 to 1980, but also its effective silencing, as he seems to have decided to never bring its research into the wider circulation through book publication.[20] So apart from a few isolated lectures that were published before his death, the over-arching concerns, terminology, and historiography that Foucault used in the second half of the 1970s would remain substantively unknown to those who were not consistent auditors (even at a distance) of his annual lectures. Even when finally published, the lectures were not published consecutively.[21] The consequence of this jumbled publication has been that the step-by-step trajectory of Foucault's argument has not been easily intelligible.

One reason for the necessity of reading the development of his claims in sequence comes from Foucault's own indecision about terminology. For a writer who is often usefully schematic in his claims based on a precise and consistent use of terms, Foucault seems to have had difficulty in deciding on these to his satisfaction. With each year's lectures, his highlighted keyword slightly shifts, as if Foucault was unhappily searching for the best framework. His first published term, for instance, is *biopower*. With this term he meant the means by which "the basic biological features of the human species became the object of a political strategy…from the eighteenth century."[22] Yet, the term is functionally deployed in only one 1976 lecture, the lecture that would be revised and published as the last chapter of *History of Sexuality, Volume I*. Biopower is briefly mentioned in the first lines of the next lecture (given in 1978 after an intervening sabbatical year) before it is abandoned in favor of the term, *security*. In ensuing years, *security* is then substituted by *regularization*, which is, in turn, replaced in later years by *governmentality*, and then more simply, *government*.

Although Foucault *did* bring the term biopower into publication, thus giving it a certain authority, he swiftly abandoned it in ways that few of his non-Parisian students knew. *Biopolitics* became his first preferred replacement keyword, chosen perhaps because Foucault decided that the process of knowledge formation was a more central definitional aspect to this new mode of power, since the biological was merely the object for its strategy and techniques. Without having access to the lectures, anglophone readers further utilized the concept of biopower beyond its validity within Foucault's own writing, often intermixing biopower and biopolitics indiscriminately.

The flickering terminology means that Foucault's discussion of neoliberalism, as itself a term that only appears in a single year's lectures, has to be embedded within his prior lectures in order for it to appear as something other than an anomalous topic. The context is important for the *Birth of Biopolitics* is exceptional in several ways within Foucault's corpus. The discussion of neoliberalism stands as one of his few focused discussions of post-1945 Euro-American history, let alone contemporary politics (of the 1970s). This seemingly unexpected treatment of the modern and contemporary, however, has a logical presence within Foucault's work only to the degree that it is placed within the trajectory of the prior years' lectures on the rise and operation of historical liberalism from the mid-eighteenth century onwards.

The discussion of liberalism and neoliberalism also marks another shift for Foucault. For he

now moves his mode of historiography away from the manifesto opening of *The Archaeology of Knowledge* that announced the study of micro-history and ruptures.[23] The temporal units within his 1970s lectures become increasingly ones of greater durations and historical overlaps, rather than sequential breaks. His use of longer historical phases also accepts the role of persistent national particularities. Just as Foucault acknowledges the difference between the Austrian and English strategies after 1815, he understands German ordo/neoliberalism as having a different emphasis, cause, and temporality than the American version, in ways implying that anglophone and German-speaking cultural differences endure, no matter what governmental form may be used at any moment.[24] While there are overlaps, transmissions, and linkages between various national emphases, they also have noteworthy differences that Foucault acknowledges in ways significantly different from *Discipline and Punish*'s assumption that French evidentiary material could stand in unremarkably for "the West" in his history of penality.

The turn to longer historical phases may be conjoined to his discussion of the contemporary moment as likewise an end of a long run. Near the end of *Discipline and Punish* (1975, English translation 1977), Foucault suggests that, "the specificity of the prison and its role as link [to the disciplinary network] are losing something of their purpose."[25] Likewise, in a 1978 interview, Foucault claimed that discipline was in crisis. He felt that it was losing its efficacy as contemporary industrialized societies were becoming "more diverse, different, and independent" and that there were, increasingly, groups who were less willing to be captured or held back by disciplinary protocols (he may have been thinking specifically of the gay sado-masochism milieu).[26] In *Discipline and Punish*, Foucault went on to say that prison was not "indispensable to our kind of society" and was being superseded, in two ways.[27] Firstly, prison's production of delinquency in order to widely cast a net of normalization over the non-incarcerated was proving "ineffective" due to "the growth of great national or international illegalities directly linked to the political and economic apparatuses (financial illegalities, information services, arms and drug trafficking, property speculation)." Secondly, the specific need for the penal apparatus was declining as its function was subject to a "massive transference" to a wider disciplinary network of "medicine, psychology, education, public assistance, 'social work.'"[28]

These claims read today as simultaneously misplaced and prescient for contemporary readers. On the one hand, the claim for imprisonment's decline seems basically wrong, especially for North Americans, who saw the vertiginous expansion of the prison industrial complex from the 1980s onwards. On the other hand, Foucault's insight into the rise of what has been commonly called the fire industries of finance, insurance, and real estate matches most accounts of the period's turn to financialized and speculative economic processes often taken as hallmarks of neoliberalism. The hint that these forms of illegality have become diffused through a wider circulatory network has an implicit corollary that (neoliberal) finance and informatics are also becoming imbricated within the wide template of "social work," welfare, and culture, more broadly, from the 1970s onwards.

This passage has been wrongly inferred as indicating that discipline was being replaced by something, which he would later call governmentality. Yet Foucault goes to lengths in the lectures to assert that while governmentality is categorically different from discipline, it is not its sequential replacement. By the late 1970s, he was also becoming more comfortable with allowing for the presence of overlapping modes: "We should not see things as the replacement

of a society of sovereignty by a society of discipline, and then of a society of discipline, say, of government. In fact, we have triangle: sovereignty, discipline, and governmental management."[29]

Thus, a more precise understanding would see that while discipline is fading, or becoming more residual, this metamorphosis does not necessarily mean that it is replaced by biopower~governmentality (here used to cover the scansion of his 1970s lectures). If governmentality is not discipline's substitution, but a simultaneous occurrence, then what *does* stand in the space that had been occupied by discipline in a world that is no longer as clearly disciplinized (or liberal governmentalized) as was the case in the nineteenth century? This is neoliberalism.

Foucault suggests that neoliberalism's governmentality does not depend on protocols of disciplinary normalization, but a behaviorism dedicated to subjects orienting themselves to rules that are constantly adjusted. In light of Foucault's suggestion that discipline and its production of a normalized subject was vanishing in the 1970s, Gilles Deleuze proposed the emergence of a society of *control*, but his comments on this are equally foresightful and impressionistic.[30] We will see that Rouvroy's commentary on algorithmic governmentality suggests that even Deleuze's initial description is inadequate.

The last, but not least, motive for placing Foucault's work on neoliberalism within the larger scansion of the work between that which focused on discipline in the early 1970s and the later ones on the technology of the self, from the 1980s onwards, involves the role of culture, as understood with reference to the cultural materialism of Raymond Williams and British Cultural Studies, exemplified, but not monopolized by, Stuart Hall and his implementation of Gramsci. In his introductory lecture of the 1979–1980 series that begins his post-governmentality phase, Foucault explains that he is seeking a "word that corresponds, not to the knowledge useful for those who govern, but to that manifestation of truth correlative to the exercise of power," Foucault chooses alethurgy.[31] If "there is no exercise of power without something like an alethurgy," Foucault adds that if "hegemony is just the fact of being in the position of leading others, of conducting them, and of conducting, as it were, their conduct," then "hegemony cannot be exercised without something like an alethurgy." The use of hegemony in this way is immediately familiar to readers of Gramsci and Gramscian-inflected Cultural Studies as the term he positioned against rule by (repressive) force and coercion. If there is no "hegemony without alethurgy," we might then place some pressure on Foucault's phrase of the "manifestation of the truth" to read it in a more Gramscian light, at a time when Foucault was actively seeking dialogue with Gramscian members of the Italian Communist Party (PCI, Parti Communiste Italien). Hence Foucault's terms here might be read as meaning that which Gramsci treated with his use of hegemony, as the creation of a sociocultural "common sense."[32] Viewed in this way, the later Foucault can be taken as suggesting that no exercise of power is possible without establishing a manifestation of hegemonic culture. Additionally, when Foucault discusses neoliberalism as a form of "conducting the conduct" of humans, it needs insisting that these are the terms that Gramsci also used in his analysis of how "intellectuals" direct and conduct individuals.[33] Foucault's notion of counter-conduct can similarly be easily replaced with the Gramsci's idea of counter-hegemony.[34] Seen in this way, Foucault's object of analysis from the mid-1970s through the 1980s is fundamentally on the role of culture as a field that allows governmentality's manifestation and operation.

The significance of Foucault's under-recognized turn to cultural studies then brings up yet another aspect of the lectures that will ultimately remain pertinent for any discussion of neoliberalism, datalogics, and American culture and writing. The lectures are far more historically grounded than the book publications, which often are stripped of their magnetizing social class context. For instance, the 1970–1971 lectures on penal theory and institutions has a lengthy discussion of the role of rural grain riots as one of the primary factors leading to the creation of sovereignty. Yet this social history is erased when *Discipline and Punish* opens with the terrific execution of Damiens, the would-be regicide, as the avenue to his explication of sovereignty. Similarly, the 1980–1981 lectures on subjectivity and truth explain that classical-era technologies of the self arose as a tactical response by urban aristocratic elites in 2 CE Rome who were experiencing decline, as their power was eroding due to the arrival of countryside factions demanding an end to oligarchic rule. In all these cases, the ostensibly more philosophical categories of the publications have an attendant history of social crisis charted out in the lectures. This is also the case for Foucault's understanding of why neoliberalism emerged as a response to the crisis of liberalism in post-war Germany and then the 1970s economic crisis in the United States. For Foucault, the establishment of techniques of control and the search for a new hegemony is always catalyzed as a reaction to the demands of more demotic forces and pressure from the lower classes.

The question of culture within historical transformation catalyzed by class struggle, what we might call historical materialism, raises two interlinked questions about resistance. In passing, Foucault suggests that one reason for neoliberalism's ability to replace liberalism was that the socialist movement, broadly defined, ultimately failed to produce a durable alternative lifeworld, despite its initial possibility through Keynesian and New Deal formations, as a result of the left's over-reliance on a nineteenth-century textual canon, rather than instantiating oppositional (institutional) forms. If "there is a really socialist governmentality, then it is not hidden within socialism and its texts. It cannot be deduced from them. It must be invented."[35] Whatever position we take on Foucault's correctness on this claim that lived socialism cannot simply be extrapolated from a dedicated reading of Marx on capital, it might provide the rationale for Foucault's turn to the study of (ancient Greek) fashioning of the self. Foucault might have chosen this otherwise unexpected turn to examine the process of how governmentality was made (or disassembled) in the past, rather than for any desire to emulate the ancient content of that process. This search for the dynamics of a past governmentality transformation might have been investigated in order to find an alternative path beyond neoliberalism. His death, however, foreclosed that avenue.

Secondly, Foucault's suggestion that neoliberalism was carried over into America from Germany because both the American left and right were simultaneously attacking the Fordism of military Keynesianism throughout the 1960s and 1970s.[36] Had the left been more tactically sophisticated in its attack on State bureaucracy, it might have foreseen a course of action that would not ultimately benefit the right. In the space provided by lost opportunities to confront neoliberalism, Rouvroy can be likewise read as suggesting that a similar conjunctural opportunity was lost after the 2008–2011 crisis, which created a vacuum that was filled by the mass onset of the datalogical, which has created a more insistent version of neoliberalism, rather than its replacement. To see the rhythm of historical transformation that Foucault narrates, it helps to review the historical sequence that Foucault charted towards neoliberalism.

**Towards Neoliberalism: Foucault's History of the West**

The moment for neoliberalism's arrival comes through the longer tale of (Western) Europe and American history that Foucault charts through his 1970s lectures. What Foucault calls the system of suzerainty fell into crisis roughly about and through the Peasants' War (1524–1526).[37] For "the movements of urban revolt and peasant revolt, the conflicts between feudalism and the merchant bourgeoisie," conjoined with concerns about "the status of women, the development of a market economy, the decoupling of the urban and rural economies, the raising or extinction of feudal rent, the status of wage-earners, the speed of literacy" that all became causes for the ensuing Wars of Religion (1562–1598).[38] The general crisis of the sixteenth century thus conclusively ended the medieval dream of reconstituting a universality that would be epitomized by the monolithic rule of the Roman Catholic Church and various national attempts to reconstitute the Roman Empire. As suzerainity unraveled, the system of sovereignty appeared in order to constitute and legitimize "monarchical, authoritarian, administrative, and, ultimately, absolute power."[39]

Sovereign power "is bound up with a form of power that is exercised over the land"— a territory — and it seeks to extract commodities and wealth through "chronologically defined," but discontinuous "systems of taxation and obligation."[40] The "implicit identification of people with [the] monarch, and nation with sovereign" was enabled by the (domestic) marketplace being configured as the site of the monarch's justice, wherein the sovereign protects purchasers from being cheated in weights, measures, and pricing.[41] While the sovereign's majestic authority allows for spectacular displays of consumption and the terrific power to take life, the sovereign State was constructed less through irrational force, than with "apparatuses, institutions, and rules" involving a "theory of the [social] contract and the reciprocal commitment of the sovereign and subjects" that was used "both to restrict and to strengthen royal power."[42] On the one hand, "power as a primal right" by the subject is "to be surrendered, and which constitutes sovereignty."[43] On the other, if the sovereign "oversteps the limit," this transgression is understood as a delegitimizing act of oppression. Juridical limits to what a sovereign might not do are established by a combination of constraints based on claims of natural law and a social contract that will be guided by a *Raison d'Etat*, overseen by governmental advisors who will protect social nature from the State's over-reach.

Largely as a result of pressures from the mid-eighteenth century's "demographic explosion and industrialization," a "new mechanism of power" arose that was "absolutely incompatible with relations of sovereignty."[44] This new, non-sovereign power is the disciplinary one that applies "primarily to bodies," and seeks to "extract time and labor" through "constant surveillance," as "one of the basic tools for the establishment of industrial capitalism."[45] While the theory of sovereignty and public right continues well into the nineteenth century, this endurance was, in the first instance, simply a tactical move through which the promoters of discipline "concealed its mechanism" before it had become more self-sufficient.[46] Unlike the sovereign code of law, discipline invokes a code of normalization through veridiction. This code is not based on juridical mechanisms, but on the formation of truth claims within the human sciences and medicine that were used to buttress a theory of constant struggle against threats to civil society. In this way, nineteenth-century discipline helped advance notions of racialized nationalism, which eventually become interiorized through the concept of a subject's self-division between private desire and public action. Here Foucault's argument about the historical inter-relation of

nationalist racism and liberalism's public-private divide echoes Marx's *On the Jewish Question* (1844).

By 1976, Foucault shifts from discussing the "rationalizing and strictly economizing" disciplinary techniques over the individual body to consider a massifying biopolitics that uses the species of population as its unit of analysis.[47] Focusing on "periods of time" involving "forecasts, statistical estimates, and overall measure," biopolitics takes as its starting point the statistical computation of "the birth rate, the mortality rate, various biological disabilities, and the effects of the environment" in order to establish knowable, regular patterns of life.[48] Biopolitics is different from discipline's construction of threatening deviancy or abnormality as it is instead a "reassuring or regulatory . . . technology of security," which seeks "to establish a sort of homeostasis, not by training individuals, but by achieving an overall equilibrium that protects the security of the whole from internal dangers."[49] The focus on a statistics of safety means that when in 1978 Foucault replaced the term *biopower* with *security* as his overarching category, the new term acts to further highlight the control of danger by recourse to a mathematically enabled knowability. Features of security involve population (as a space of security distinct from sovereignty's territory or discipline's body), the management risk, and a form of normalization different from discipline, one that does not operate like discipline's "binary division between the permitted and the prohibited," but instead "establishes an average considered as optimal," through a "bandwidth of the acceptable that must not be exceeded."[50] Security stands as the obverse of discipline, both in its scale and operation. While discipline is centripetal, as it "concentrates, focuses, and encloses," the "apparatuses of security" are centrifugal, allowing for the development of ever-wider circuits. Rather than fixing and congealing space through segmentation, security takes the maintenance of circulation as its target. It seeks to use an already given environment in order "to plan a milieu in terms of events or a series of events or possible elements that will have to be regulated within a multivalent and transformative framework" in order to minimize the negative.[51] Discipline pores over details in order to tell "you what you must do at every moment"; security sees these details as neither "good or evil in themselves," but as a "necessary inevitable process," wherein the action is to "respond to a reality in such a way that this response cancels out the reality to which it responds–nullifies it, or limits, checks, or regulates it."[52]

Discipline works by a process Foucault had previously defined as normalization, but now suggests it should be called *normation. Normalization*, Foucault argues, should now be used to describe security's distribution of cases with a "population circumscribed in time or space" in order to posit "an optimal model that is constructed in terms of a certain result" and "to get people, movement, and actions to conform to this model."[53] Security seeks to "an interplay between these different distributions of normality…the norm is an interplay of differential normalities."[54]

Just as Foucault had argued for the necessary relationship between capitalism and discipline, the same is true of biopower~government: "the development of capitalism would not have been possible without bio-power [security/regularization/governmentality]." The rise of statistical institutions ensured "the adjustment of the accumulation of men to that of capital, the joining of the growth of human groups to the expansion of productive forces and the differential allocation of profit."[55] In this, discipline and biopolitics~governmentality intersect with one another, even though Foucault argues that disciplinary action emerges historically

earlier than biopolitics, since the latter requires "complex systems of coordination and centralization" that are more complicated to establish. Similarly, the calculation of the social "distributions around the norm" must wait on the development of apparatuses, like statistics, that can deliver these "scientific" truths.[56] The discipline and governmentality pair can be considered as linked and different in the same way that Marx used the first volume of *Capital* to detail the cross-class conflict over the production of surplus-value, while the second and third volumes details infra-capitalist competition in the entire circulation of capital and its expanded reproduction. Governmentality is analogous to capitalism's use of competitive pressures to ensure the flow and turnover of capital circuits.

Additionally, Foucault describes the turn from sovereign systems to disciplinary and biopolitical~governmental ones by a similar passage of economic theories from cameralism and mercantilism through physiocracy  and towards (liberal) political economy. Foucault sees mercantilism as tied to sovereignty and its subject of rights. With the loss of the universalizing dream of the Roman Empire and Church after 1648, the mercantilists sought a "series of controls on prices, storing, export, and cultivation" to address the problem of food scarcity.[57] While they sought the creation of a large population, which would allow a nation to produce cheap goods for export, mercantilists faced the problem of feeding this population. Because mercantilism was unable to solve this riddle, physiocratic thought came to replace it.

The physiocrats consequently sought the "free circulation of grain," rather than the mercantilist concern for a nation's segmentation and trade barriers. Thus, the physiocrat's unit of analysis was not market scarcity, but "the entire cycle" of production, distribution, and the marketing of grain.[58] By acknowledging and working *with* price fluctuations, rather than seeking to prevent them, as did the mercantilists, the physiocrats were able to move away from mercantilism's belief in spatial boundaries to a perspective that focused more on flows, rather than discrete territories.[59] Yet the physiocratic model faced the challenge of seeking to prolong the survival of sovereignty in the face of increasingly insurmountable anti-sovereign pressures, like the economic and "demographic expansion of the eighteenth century, which was linked to the abundance of money," due to the influx of precious metals from the Americas and "the expansion of agricultural production."[60] As an incoherent or internally contradictory approach that could not respond to these changing conditions, physiocracy was destined to be a transitional moment before the rise of (liberal) governmentality, the term that by this point in the lectures has replaced biopower, security, and regulation. Foucault now encapsulates the prior terms within his definition of governmentality as "the ensemble formed by institutions, procedures, analyses and reflections, calculations, and tactics that allow the exercise of…power that has the population as its target, political economy as its major form of knowledge, and apparatuses of security as its essential technical instrument."[61]

Liberal thought continues with aspects of the physiocrats as it considers the population as a "set of processes…not a primary datum…[but] a series of variables."[62] What separates liberalism from physiocracy is that the former considers these variable as forming constants and "regularities even in accidents." The search for norming patterns occurs in order to "identify the universal of desire regularly producing the benefit of all," the average utility on which the pastoral State should act.[63] This turn thus replaces the subject of (sovereign) right for a subject of (liberal, collective) interests that may be heterogeneous, but also calculable. For the (bourgeois) individual, (class) interest becomes understood as personal desire that is interiorized in order to protect it from the public force of a larger (proletarian) population. In order to

maintain equilibrium between the State and the market, liberals insisted on the necessary presence of civil society. As a result of this configuration, liberalism creates a public/private divide, where the population is also a *public* (sphere) with "opinions, ways of doing things, forms of behavior, customs, fears, prejudices, and requirements; it is what one gets a hold on through education, campaigns, and convictions."[64] The State's pastoral care of this multiplicity is made easier, though, by the production of a disciplined subject, one who is "subjected in continuous networks of obedience, and who is subjectified through the compulsory extraction of truth."[65] Discipline and liberal governmentality form a centaur-like yoking of coercion and consensus made possible only in the wake of sovereignty's decline as a dominant force. Yet it is the ensuing crisis of liberal governmentality that creates the conditions for the rise of neoliberalism, much as sovereignty arose as a response to the crisis of feudal suzerainty.

**Foucault on Neoliberalism**

Foucault's historical narrative on the rise of neoliberalism begins with the Freiburg School of ordoliberals who initially developed their ideas through the Weimar and Nazi years, but eventually came to respond to the conditions of post-war Germany.[66] Here, the pressing question was to answer the riddle of what might legitimize a State in a land that had so clearly failed to maintain liberal predicates and was, in any case, suffering from the devastation of the war and hemmed in by the Allied occupiers' oversight. Consequently, unlike classical liberalism, ordoliberals did not seek to protect the marketplace from the State, since, given Germany's popular conditions, the State was barely in existence, let alone a threat. Instead, these economists looked to the marketplace to "have a state-creating function and role, in the sense that it will really make possible the foundation of the state's legitimacy."[67]

In part due to the legacy of the Nazi concentration of powers, the German economists rejected the legacy of Bismarckian state socialism and centralized economic planning that they saw resurrected in the Keynesian policy of a protected economy.[68] Their rejection of State bureaucratic planning and reconstruction came because they saw the monopolizing centralization of capital as resulting from liberalism's failure to keep its promise, rather than as an intrinsic feature of capital. Moreover, the ordoliberals believe that liberalism's ideal of the marketplace's naturalism was a naïve fantasy. Instead, they concluded that the State's role is to ensure *and* create entrepreneurial competition, and to lead the population into accepting the market's infiltration into other new, ostensibly non-market areas. In this light, they sought the creation of an "enterprise society," rather than a "civil" one, where subjects are neither consumers with sovereign-backed rights, nor exchangers with liberal interests, but entrepreneurs and speculative investors of personal resources.[69] Unlike the Keynesians, the ordoliberals did not seek to ensure consumers' purchasing power through full employment, price controls, or support for a particular sector.[70] Their main instrument would be to control the price of goods and labor by instigating competition among workers.

Foucault sees the advent of neoliberalism in the United States as coming later than Germany and as having its own national particularities, such as the more radical unwillingness to accept aspects of social welfare. While the German crisis of liberal governmentality was a feature of the immediate postwar condition, the crisis of American liberal governmentality came in the late 1960s and early 1970s, when both the left and the right mutually sought to unravel the military Keynesian State. The left saw the State as the realm of soul-killing, one-dimensional bureaucratic massification complicit with imperial adventurism, while the right was upset

about the multiform challenges to a longstanding social stratification due to various civil rights and anti-war movements. In contrast to what happened in America, Foucault suggests that German ordoliberals were ultimately held back in the 1960s because European social democracy remained too strong and was able to continue to ensure the State's protections. Without any group advocating for center-left policies in the United States, there was little to block the onset of neoliberalism when it proposed itself as the solution to the perceived failures of Keynesianism in the face of 1970s stagflation. Unlike in continental Europe, where the primary concern was to cultivate anti-centralizing competition in collective society, the US neoliberals (anarcho-liberals is Foucault's preferred term for this group) focused more on promulgating the individual as an "entrepreneur of himself," one who would calculate all their life behavior through the lens of investment decisions and opportunities.[71] This idea of human capital seeks to place all "non-economic behaviour through a grid of economic intelligibility."

Thus, the American neoliberals abandoned liberalism's unit of the population and looked instead for individuals to seek to learn the constructed rules of an economic and social game. Unlike disciplinary techniques, neoliberalism does not seek "a standardizing, identificatory, hierarchical individualization, but an environmentalism open to unknowns, freedoms of [interplay] between supplies and demands."[72] In this, neoliberal governmentality sought to manage individuals by modifying "the terms of the game, not the player's mentality." Hence, the neoliberal subject exists as an entirely different entity than that of liberalism. As a subject of calculation, rather than one of (collective) interest or right, the neoliberal subject requires neither a collective morality of natural (human) rights, nor the evaluative norms of liberal civil society. Furthermore, it abandons the interiority of liberalism in favor of something that looks more like the historically prior exteriority of sovereignty and its right to take life. This homology may explain why discussions of neoliberalism often do so with reference to ideas of the exceptional State (Carl Schmitt), bare life (Giorgio Agamben), or necropolitics. By abandoning liberalism's tension between danger and security, neoliberals sought a game that was based on endless risk. As Rouvroy will argue, the knowability looked for in statistics becomes obsolete as a different kind of mathematical directive will emerge, one based on constantly dynamic and automated algorithms.

Partly because Foucault then turned his work away from these contemporary concerns after 1979, he left the question as to what would replace the element of discipline in an age of neoliberal governmentality largely unexplored. Within this conceptual vacuum, Deleuze scripted a "Postscript on Control Societies" (1990), in which he, both presciently and superficially, argued that a "mutation of capitalism" had shifted beyond the earlier form of discipline.[73] He considered this new form of society by "control" as having three noteworthy features. Firstly, control was not purveyed through professional examination and disciplinary oversight against a norm, but through institutions that enabled marketing or sales perspectives. Secondly, as part of the shift from a (Fordist) productive manufacturing economy to one based on (post-Fordist) consumerist service sectors and prefabricated assembling, control dispenses with discipline's spaces of compartmentalization in favor of modulations "continually changing from one moment to the next."[74] Lastly, Deleuze argues that it is no longer possible to be disciplined because no one can now have an integral individuality or belong to a "mass" society. For that which was previously called civil society is now simply the interrelationship of sub-integral agents, what Deleuze "dividuals," that are found within "samples, data, markets, or *banks*," with the latter meaning both hardware

servers of digital informatics as well as finance capitalists arbitrating floating exchange rates.

Deleuze's outline, however, is also short and sparse, making it easier to read as a set of poetic intimations about computation than as a fully blown critical intervention. These initial claims can now be more completely understood through what Rouvroy calls *algorithmic governmentality*. Rouvroy's work suggests that the advent of the datalogical not only completes the logic of neoliberal competition, but also significantly leaps beyond it to develop a new phase of neoliberalism.

**Algorithmic Governmentality**

Legal scholar Antoinette Rouvroy argues that the computational turn involving algorithms marks a further turn of the screw in the "neoliberal mode of government which produces the subjects it needs."[75] Following Guillaume Le Blanc, she understands neoliberalism as that which conjoins its subjects to a "maximization of performance" (production) and enjoyment

Table 3.1  Foucault's Historical Epochs and Beyond Neoliberalism

| Epoch | Period | Dominant Means of Power | Target | Dominant Form of Subjectivity | Dominant Mode of Power |
|---|---|---|---|---|---|
| Suzerainty | early 1500s | | | | |
| Sovereignty | early 1500s–late 1700s | Terror | Acts | Subject of right | Law's repressive power |
| Physiocracy | early 1700s–1750/1780 | Punishment | Representation | Subject of sentiment | |
| Liberalism | 1750–1970s | Discipline | Identity | Subject of interests | Knowledge's productive power |
| Neoliberalism | 1930/40s–1970s | Enterprise | Human capital | Subject of speculation | Game's competitive power |
| Algorithmicity | 2010s– | Datalogic | Digital profile | Subject of data mining | Data's algorithmic power |

(consumption) through a "continuously reiterated project of 'becoming themselves.'" Yet for all the claims of sousveillance — self-control, self-evaluation, self-entrepreneurship — Rouvroy argues that because of the constantly altering shape of the data profile through algorithmic feedback loops, algorithmic governmentality does not allow for the creation of either an intentional subject or one who might be addressed or interpellated in the Althussarian-Lacanian sense or normalized in the disciplinary Foucauldian one.

If liberal "governing" was the production of "a certain 'regularity' of behaviors (among citizens, customers, patients, students, employees, etc.) it consists — at least in liberal countries — in inducing individuals to choose, in the range of things they may do or may not abstain from doing," as well as the role of (bureaucratic) expertise in making resource allocation evaluations.[76] Algorithms, however, are basically created to dispense with the need to choose or supervise decision making, since the fundamental goal of autonomic computing is to achieve efficiency by shrinking, if not entirely removing, the time between the user's desired outputs and the IT "implementation necessary to achieve those goals — without involving the user in that implementation."[77] IBM's defining characteristics of autonomic computing, in which algorithms are used, includes the system's ability to remove the friction of the user's interpretive presence by having the system able to recognize and identify its own components, dynamically reorganize itself for maximal optimalization, prevent against malfunctions by having context awareness and adaptability to a changing environment, and "anticipate and optimize resources consumption while keeping its complexity hidden."[78] Without the need for intentional agency or interpreting analysis, autonomic computing diminishes the need for a buffering medium, such as was the analogous function of civil society in the liberal State-market system.

These technologies form a different kind of governmentality than that of liberalism, one conveying what Rouvroy calls "data behaviourism," a governmentality based on the "implicit belief…that provided one has access to massive amounts of raw data…one might become able to anticipate most phenomena (including human behaviours)…thanks to relatively simple algorithms…without having to consider either causes or intentions."[79] The purpose of data mining among vast sets of information inputs is not to discern the interested choices of integral subjects, but instead to locate fragments of actions that exist below the "signature" of individual awareness. These non-integral fractions will be used to create a larger datalogic profile, formed by capillary bits of activity that are bundled to make intelligible otherwise imperceptible correlations of activities that are weakly intentional. Rather than have an integral subject that can be hailed or disciplined, algorithms create what might be called a *wave-particle* subject, one that is simultaneously microscopic and a protean aggregate that is constantly changing through real-time feedbacks. Consequently, "algorithmic governmentality is without [a] subject: it operates with infra-individual data and supra-individual patterns without, at any moment, calling the subject to account for [her or] himself."[80]

In this datalogic turn, a different kind of mathematics becomes dominant. Foucault argued that the human sciences throughout the late eighteenth and nineteenth century used the mathematical knowledge of statistics to construct liberal subjectivity. Statistics were deployed to render "heterogeneous situations and accomplishments *commensurable*," for the sake of comparing risk.[81] By creating a, more or less, static and stable object (or category) of knowledge, like Quetelet's "average man," statistical claims could be used to validate a "hypothesis about the world," which can then be used for utilitarian, liberal decision-making.[82] In contrast, Rouvroy contends that algorithmic neoliberalism now dispenses with statistics as a form of knowledge production. The real-time instantaneous feedback of an algorithm, which constantly adjusts itself with regard to

*all* data inputs, forgoes the goal of stability, not least since algorithms are not designed to establish an ideal utility or equilibrium, but to respond interactively with their environment…Consequently, an algorithmic system "simply exempts from the burden…of organizing interpretation or evaluation process…[it] *spares* the burden of testing, questioning, examining, evaluating actual facts…it avoids [the need] to make objects or persons" appear.

In this sense, Rouvroy's discussion of algorithms for the sake of a new kind of post-liberal governmentality shifts our understanding of prior goals of neoliberalism in two significant ways. Firstly, the locus has been moved from heroic entrepreneurial investment into the self as speculative human capital to one of non-stop consumption, as seen with Charles Duhigg's exemplary article on the shopping retailer Target and their early adoption of algorithmic profiling.[83]

Duhigg showed that Target was able to deposit its shoppers' individual purchase choices into a data mine from which they could extract new correlations across all the other sets of personal checkout events. This process then allowed Target to use the derived profile to very successfully indicate the presence either of a consumer's pregnancy or its location within the consumer's immediate family based on the purchasing choices. While the story gained notoriety for the creepiness of its collapse of public-private boundaries, this profiling's larger goal was lost to readers who encounter the article outside of its place within Duhigg's book, which advances a larger claim about the ability to rewire habit through alterable behavioral trigger mechanisms.[84]

The target of Target's profiling was not ultimately a relatively small subset of consumers associated with pregnancy, but as a means of discovering how to erase preexisting integral patterns in *all* its shoppers in order to increase their purchasing of Target's goods. Because time-conscious consumers quickly create their own habit-trail through a store that takes them to the location of their desired goods as quickly as possible, Target looks to alter these set patterns that make many of their shelves functionally invisible to shoppers who have trained themselves to see only their sought for goods.

For as a big-box retailer of everything, from furniture and interior furnishings to outdoor leisure equipment, electronics, groceries, and drugstore goods, Target not only needs to get shoppers into their shopping space, but to then have them walk through as much of their floor display as possible, so that they view as much as possible of the shelved inventory. Target's project was their response to the falling rate of profit facing all "monopoly" stores. On one hand, their attraction to consumers is the good of time efficiency by standing as a one-stop superstore that has everything. On the other hand, Target must reduce the unprofitable time that goods remain on their shelves, as well as lower warehousing costs for goods that cannot be stocked until the current shelf space becomes empty.

The attraction of understanding the algorithms of pregnancy purchasing for Target is that given pregnancy's relatively unique purchasing requirements, the life-event stands as a privileged habit-altering event in ways that allows the store to *distribute* the necessary goods widely throughout the store, rather than clustering them, in order to force consumers to search the shelves for where these might be located. Target hopes that by forcing fresh eyes on previously ignored aisles, consumers will end up buying goods other than the ones they were looking for in the first place. By deploying the governmentality of dispersion, rather than isolation of discipline (in the sense that no section is now signposted for pregnancy needs), Target sparks consumption, while also saving money by working on consumer flow, rather than going through the expense of altering what must be for them a nationally standardized store layout. What Target sought to learn from the data patterns gained from pregnancy shopping was how to discern (or create) a host of other habit-altering events. In this sense, algorithmic marketing is not interested in making a "disciplinary" evaluation of one's object choices. It is amoral and does not care, in any disciplinary instance, what shoppers specifically desire, be it

Chopin's etudes, NASCAR racing video games, or strap-on dildos. It merely seeks to ensure customers keep shopping, and thus keep providing more data to be mined that might be recursively used to instigate even more shopping. This shopping, though, is not for the "investment" of human capital, as was sought for in earlier forms of neoliberalism. Instead, it is designed to create an endless consumption that is never meant to "realize" profit or conclude the circuit of consumption.

Secondly, Target's algorithmic shopping is *anti-developmental*. It seeks to make shoppers approach the store every time like it is their first time, and be constantly alert and curious as to what the store is offering. This, too, marks a significant shift within neoliberal techniques. Early neoliberalism sought to encourage subject to embrace risk by learning the dictated rules of a constant game, yet the ever-changing nature of the algorithm, due to its own internal feedback of data input, means that the game is always changing its outputs and has no clearly advertised rules by which it does so. Hence, a player can never gain experience or skill based on past performances, because it is never possible to know in advance the effects of any action in this moment's ecology. Unlike liberal supply and demand, the algorithmic market has no "natural" price setting equilibrium. Prices can constantly surge or fall based on unknowable events or momentary conditions. In this way, the market produces no "truth" about a commodity's value in the way imagined by liberalism's political economy. This radical uncertainty makes it easier to achieve nudging the shopper into consuming by providing hints, but not conclusive answers, to the moment's underlying rules, not least by guiding shoppers into spontaneous "likes" of correlative purchasing of goods that they never knew they had desired before and, importantly, might not ever again. No act contains any preparation for how one might perform in the future.

By forcing the consumer to be constantly alert, but also uncertain of the effect of their moves, algorithmic occasionality means that purchasing becomes increasingly separated from the development of a subjective personality. Pierre Bourdieu's claim about the construction of a cultural field of taste within liberal societies is thus undermined.[85] An algorithmic network is not organized through a chart a syntagmatic series of commodity choices that can be placed in a grid of oppositions in order to construct markers of (class) difference. Because one never gains a complete directory of known qualities that can be taken as indexing one's status position within the algorithmic field, it becomes less possible to fashion a statement about identity through the symbolic codification of purchasing. "High" and "low" cultural differentiations vanish, not in a spirit of egalitarianism, but because these markers of identity formation through aesthetic choices are no longer stable or visible within the algorithmic matrix.

Within the algorithmic ecology, not only do the players not know what is permissible, neither do the referees. For example, within predicative policing by algorithm, the authorities are themselves unaware of what they are looking to incriminate, since they, too, must wait on the screen's commands to guide them, much like a driver relying solely on the GPS. Claims for a prejudiceless law enforcement are utopian, since algorithmic policing does incorporate (racialized, gendered, class-oriented) disciplinary norms.[86] Yet, while Rouvroy admits the possibility that "the pre-emptive powers of algorithms are over-estimated," the larger point is that older forms of embodied profiling overlap and may ultimately be subsumed within the newer, disembodied or cybernetic, algorithmic ones.

Such a radical separation from development or judgment gained through past performance experience then creates a psychic condition that Rouvroy compares to postwar traumatic syndrome disorder, where individuals find that they cannot express their experience, since they have no readily available representational code or symbolic medium to do so.

Algorithm's complete removal of truth-formation, personal development, coherent sense of belonging within a civil society (or fractions therein), and investment-less consumption can stand as distinguishing features of a new phase of neoliberalism, a phase that may have been called upon to save earlier forms of neoliberal governance from its own failures. Philip Mirowski, among others, has wondered why neoliberal policies were not abandoned after the crisis of 2008–2011? If the crisis of the early 1970s put an end to liberal macroeconomics, then why have the last few years not done the same for neoliberalism?[87] Here it might not be coincidental that it was precisely at this time that the algorithmically organized consumer portals involving social networks (Facebook), information delivery (Google), online retailing (Amazon), urban transport and delivery (Uber, Deliveroo), and streaming entertainment (Netflix) became popularized. The massification of algorithms within daily life, rather than as a tool for relatively elite financial and scientific practice, may have been as much a factor in neoliberalism's post-2008 survival as were State bailouts and fiat currency creation through qualitative easing, both of which were, after all, tactics that momentarily resurrected otherwise distasteful Keynesian interventions. The rise of algorithmic capitalism is thus linked to, but also different from, the neoliberalism of the 1970s, much as postwar military Keynesianism was linked to, but also different from, New Deal-era liberalism. It is this new environment that frames the challenge for American writing and culture.

**The Cultural Forms of Algorithmic Governmentality**

If Foucault argued that each regime of governmentality has its own dominant genre, then what cultural form(s) should emerge to become influential in our current moment? What are the cultural registrations of the loss  of disciplinary individuality and liberal social governmentality before the force of algorithmic governmentality? If the current algorithmic condition manifests an extreme existential uncertainty that creates a crisis of linguistic exhaustion and voiding of semiotic representation, then perhaps the claims of post-critique literary criticism unwittingly registers a contemporary reality involving the loss of a Habermasian rational-critical public sphere? If we are said to exist in a post-truth political age, the possibility for this appears when the institutionalized cultural apparatuses of the liberal era have not simply become conjuncturally damaged, but are now made nearly obsolete. Rather than social media feeds being seen as the corruption of public sphere communication, it might be more apt to recognize how they have been shaped in the first instance through algorithms that were never designed to operate through liberal principles, since the ensuing algorithmic profile  is not a collective public, or even a counterpublic, but an entirely different entity altogether.

Perhaps the new awareness about racialized and gendered microaggression involving unintentional statements that reveal a persistent milieu of prejudice in forms otherwise too inconsequential for intervention by a law-evaluating judiciary is also the appearance of attempts to understand the infra- and supra-individual profiling by which our societies are being contoured. Rather than seeing complaints about micro-aggression and the assumption of (racial or gendered) privilege as a turn away from juridically enforced civil rights or critiques of (economic) power inequalities, these concerns may capture a reality and recognition that older forms of redress are faltering, given that these older forms were forged according to liberalism's specifications.

In a larger sense, can the institutions and cultural forms of liberalism continue to hold together in a post-self, post-collective realm of wave-particle subjectivity? Given that the novel-form arose through liberalism's long duration, and that the American novel in particular was conjoined to New Deal and military Keynesian desires to instantiate pluralist consensus, then what is left of this cultural form in

the era of algorithmic neoliberalism? What of the novel's long-standing project to cement an imagined community through the creation of a readership shaped by disciplinary interiority and liberal regulatory governmentality? When the system of sovereignty was bypassed by that of liberalism, the form of dramatic tragedy did not vanish, but it lost its preeminent place as a consecrated mediator of social and cultural energies. Will a similar act of declining status also be the fate of the (liberal) novel in the age of algorithmic neoliberalism? This riddle about the efficacy of its longstanding form and social function is one of the primary questions that contemporary American writing today must seek to answer.

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## Notes

[1] Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978– 1979* (Basingstoke: Palgrave, 2008), 130.

[2] Foucault, *Biopolitics*, 130.

[3] Foucault, *Biopolitics*, 61.

[4] Foucault, *Biopolitics*, 131.

[5] Foucault, *Biopolitics*, 131, 132.

[6] Loïc Wacquant, *Punishing the Poor: The Neoliberal Government of Social Insecurity* (Durham, NC: Duke University Press, 2009).

[7] Foucault, *Biopolitics*, 131; Michael Foucault, *On the Government of the Living: Lectures at the Collège de France, 1979– 1980* (Hampshire, UK: Palgrave Macmillan, 2014), 12.

[8] Foucault, *Biopolitics,* 19, 297.

[9] Michel Foucault, *"Society Must be Defended": Lectures at the Collège de France, 1975–1976* (New York: Picador, 2003), 175.

[10] Foucault, *Society Must Be Defended*, 175.

[11] Ian Watt, *The Rise of the Novel: Studies in Defoe, Richardson, and Fielding* (Berkeley: University of California Press, 1957); Lionel Trilling, *The Liberal Imagination: Essays on Literature and Society* (Garden City, NY: Doubleday, 1953).

[12] Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 1983). See also, Guido Mazzoni, *Theory of the Novel*, trans. Zakiya Hanafi (Cambridge, MA: Harvard University Press, 2017).

[13] Georg Lukács, *The Theory of the Novel*, trans. Anna Bostock (Cambridge, MA: MIT Press, 1971), 89.

[14] Antoinette Rouvroy, "The End(s) of Critique: Data Behaviourism Versus Due Process," in *Privacy, Due Process and the Computational Turn: The Philosophy of Law Meet the Philosophy of Technology*, Eds. Mireille Hildebrandt and Katja De Vries (Abingdon: Routledge, 2012), 143–167; Antoinette Rouvroy, "Technology, Virtuality and Utopia: Governmentality in an Age of Autonomic Computing," in *Law, Human Agency and Autonomic Computing: The Philosophy of Law Meet the Philosophy of Technology*, Eds. Mireille Hildebrandt and Antoinette Rouvroy (Abingdon: Routledge: 2011), 119–140; Antoinette Rouvroy and Thomas Berns, "Le Nouveau Pouvoir Statistique," *Multitudes* 40 (February 2010): 88–103. For a more complete list of her French language publications, see https://works.bepress.com/antoinette_rouvroy. Rouvroy's work has been implemented in Bernard Stiegler, *Autonomic Society: The Future of Work, Volume I* (Cambridge: Polity, 2016) and John Cheney-Lippold, *We Are Data: Algorithms and The Making of Our Digital Selves* (New York: New York University Press, 2017).

[15] For useful accounts of neoliberalism, see citations in this volume's introduction.

[16] For indicative works, see *The Foucault Effect: Studies in Governmentality*, Eds. Graham Burchell, Colin Gordon, and Peter Miller (Chicago: University of Chicago Press, 1991) and Thomas Lemke, *Foucault, Governmentality, and Critique* (Boulder, CO: Paradigm Publishers, 2011).

[17] Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Pantheon, 1977); Michael Foucault, *The History of Sexuality, Volume I* (New York: Pantheon, 1978).

[18] Foucault, *Society Must be Defended*, 239–264. This material is revised in *History of Sexuality*, 135–159.

[19] Michael Foucault, *The Use of Pleasure* (London: Penguin, 1990), 7. The third volume of *The History of Sexuality* was also published in 1984. The English publication of this volume appears as *The Care of the Self* (London: Penguin, 1990).

[20] According to a self-published journal by Foucault's Berkeley students, he was planning to conduct a research project with them on "the 1920s, and the rationalities of government that made possible the Welfare State, fascism, and Stalinism," Had Foucault lived and actually led this project, this might have been the place where the work on governmentality might have found publication. Anonymous, "Foucault in Berkeley," *History of the Present* 1 (February 1985): 6–14. See also, Keith Gandall and Stephen Kotkin, "Governing Life in the U.S.A. and the U.S.S.R.," *History of the Present* 1 (February 1985): 4-6.

[21] The four lectures from 1975–1976 to 1979–1980 (no lectures were given in 1976–1977) appeared in French in 1997, 2004, 2004, and 2012, with the English translations in 2003, 2007, 2008, 2014.

[22] Michael Foucault, *Security, Territory, Population: Lectures at the Collège de France 1977–1978* (Basingstoke, UK: Macmillan, 2009), 1.

[23] Michael Foucault, *The Archaeology of Knowledge and the Discourse on Language* (New York: Harper and Row, 1976), 3-6.

[24] Foucault, *Biopolitics*, 60.

[25] Foucault, *Discipline and Punish*, 306.

[26] Michel Foucault, "La Sociéte disciplinaire en crise," in *Dits et Écrits: 1954–2008, Vol. 3* (Paris: Gallimard, 1994), 532–533.

[27] Foucault, *Discipline and Punish*, 305.

[28] Foucault, *Discipline and Punish*, 306.

[29] Foucault, *Security, Territory, Population*, 107.

[30] Gilles Deleuze, "Postscript on Societies of Control," in *Negotiations: 1972–1990*, trans. M. Joughin (New York: Columbia University Press, 1995), 178–182, originally published in *L'Autre Journal* l (May 1990). Other brief discussions are: Deleuze, "Control and Becoming" in *Negotiations*, 169–176 (originally published as a conversation with Toni Negri, *Futur Anteneur* 1 (Spring 1990) and Gilles Deleuze, "Having an Idea in Cinema" in *Deleuze and Guattari: New Mappings in Politics, Philosophy, and Culture*, Eds. Eleanor Kaufman and Kevin Jon Heller (Minneapolis: University of Minnesota Press, 1998), 14–19. Although not explicitly linked to these claims, see also his philosophical study of modulations, *The Fold: Liebniz and the Baroque*, trans. Tom Conley (Minneapolis: University of Minnesota Press, 1992).

[31] Foucault, *Government of the Living*, 6–7.

[32] Michel Foucault, *Remarks on Marx: Conversations with Duccio Trombadori*, trans. R. James Goldstein and James Cascaito (New York: Semiotext(e), 1991).

[33] Compare the first passage from Foucault's *Biopolitics* (186) to one by Antonio Gramsci:
   1) "The term itself, power, does no more than designate a domain of relations which…I have proposed to call governmentality, that is to say, the way in which one conducts the conduct of men, is no more than a proposed analytical grid for these relations of power. So, we have been trying out this notion of governmentality and, second, seeing how this grid of governmentality, which we may assume is valid for the analysis of ways of conducting the conduct of mad people, patients, delinquents, and children, may equally be valid when we are dealing with phenomena of a completely different scale, such as an economic policy, for example, or the management of a whole social body, and so on."
   2) "In practice, this problem is the correspondence 'spontaneously and freely accepted' between the acts and the admissions of each individual, between the conduct of each individual and the ends which society sets itself as necessary-a correspondence which is coercive in the sphere of positive law technically understood, and is spontaneous and free (more strictly ethical) in those zones in which 'coercion' is not a State affair but is effected by public opinion, moral climate, etc." Antonio Gramsci, *Selections From the Prison Notebooks*, trans. Quintin Hoare and Geoffrey Nowell Smith (New York: International Publisher, 1971), 195–6.

[34] Foucault, *Security, Territory, Population*, 201–202.

[35] Foucault, *Biopolitics*, 94.

[36] Foucault, *Biopolitics*, 218.

[37] Foucault, *Security, Territory, Population*, 229.

[38] Foucault, *Security, Territory, Population*, 215, 216.

[39] Foucault, *Society Must Be Defended*, 25.

[40] Foucault, *Society Must Be Defended*, 35.

[41] Foucault, *Society Must Be Defended*, 69.

[42] Foucault, *Security, Territory, Population*, 103; Foucault, *Society Must Be Defended*, 27, 35.

[43] Foucault, *Society Must Be Defended*, 16–17.

[44] Foucault, *Society Must Be Defended*, 249, 35.

[45] Foucault, *Society Must Be Defended*, 36.

[46] Foucault, *Society Must Be Defended*, 37.

[47] Foucault, *Society Must Be Defended*, 242.

[48] Foucault, *Society Must Be Defended*, 246, 245.

[49] Foucault, *Society Must Be Defended*, 249.

[50] Foucault, *Security, Territory, Population*, 6, 11.

[51] Foucault, *Security, Territory, Population*, 44, 20.

[52] Foucault, *Security, Territory, Population*, 45, 47.

[53] Foucault, *Security, Territory, Population*, 57, 60.

[54] Foucault, *Security, Territory, Population*, 63.

[55] Foucault, *History of Sexuality*, 141.

[56] Foucault, *Society Must Be Defended*, 250*; History of Sexuality*, 144.

[57] Foucault, *Security, Territory, Population*, 32.

[58] Foucault, *Security, Territory, Population*, 40.

[59] Foucault, *Security, Territory, Population*, 342.

[60] Foucault, *Security, Territory, Population*, 103.

[61] Foucault, *Security, Territory, Population*, 108.

[62] Foucault, *Security, Territory, Population*, 70.

[63] Foucault, *Security, Territory, Population*, 74.

[64] Foucault, *Security, Territory, Population*, 76.

[65] Foucault, *Security, Territory, Population*, 185.

[66] For a longer discussion of ordoliberalism in postwar Germany, see this volume's introduction.

[67] Foucault, *Biopolitics*, 95.

[68] Foucault, *Biopolitics*, 107–109.

[69] Foucault, *Biopolitics*, 147.

[70] Foucault, *Biopolitics*, 139.

[71] Foucault, *Biopolitics*, 226.

[72] Foucault, *Biopolitics*, 261.

[73] Deleuze, "Postscript on Control Societies."

[74] Deleuze, "Postscript on Control Societies," 179.

[75] Rouvroy, "Data Behaviourism," 153.

[76] Rouvroy, "Data Behaviorism," 153.

[77] Rouvroy, "Governmentality," 120.

[78] Rouvroy, "Governmentality," 120.

[79] Rouvroy, "Data Behaviourism," 143.

[80] Rouvroy, "Data Behaviourism," 144–145.

[81] Rouvroy, "Data Behaviourism," 149.

[82] Rouvroy, "Data Behaviourism," 149.

[83] Charles Duhigg, "How Companies Learn Your Secrets," *New York Times*. February 12, 2012. https://www.nytimes.com/2012/02/19/magazine/shopping-habits.html.

[84] Charles Duhigg, *The Power of Habit: Why We Do What We Do in Life and Business* (New York: Random House, 2014). For Google's discussion of group modification through algorithms, see "The Selfish Ledger," Accessed July 10. 2018. https://www.theverge.com/2018/5/17/17344250/google-x-selfish-ledger-video-data-privacy.

[85] Pierre Bourdieu, *The Field of Cultural Production* (Cambridge: Polity Press, 1983) and *Distinction: A Social Critique of the Judgment of Taste* (London: Routledge, 1986).

[86] Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Cambridge, MA: Harvard University Press, 2015); Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* (New York: Penguin, 2016); John Cheney-Lippold, *We Are Data: Algorithms and the Making of Our Digital Selves* (New York: New York University, 2017); Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (New York: Macmillan, 2018); Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York: New York University Press, 2018). Philip Mirowski, *Never Let a Serious Crisis Go to Waste*: *How Neoliberalism Survived the Financial Meltdown* (London: Verso, 2010).

[87] Philip Mirowski, *Never Let a Serious Crisis Go to Waste*: *How Neoliberalism Survived the Financial Meltdown* (London: Verso, 2010).