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The financialization of life

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Abstract

This chapter elaborates upon financialization research that draws on post-structural theorizations of contemporary power relations provided by Michel Foucault and Gilles Deleuze. Research in this vein primarily focuses on the financialization of everyday socio-economic life, offering analyses of the governmentalized configuration of economies, cultures and subjectivities of speculation and indebtedness. Foucault and Deleuze provoke a more wide-reaching research agenda, however, one that foregrounds how financial logics and techniques are incorporated into, and are constitutive of, the power relations that seek to control and secure life under neo-liberal capitalism. Post-structural research can be extended to encompass multiple and related modalities of the financialization of life, including the force of financial logics and techniques in the ordering of biological life.

Introduction

The purpose of this chapter is to elaborate upon financialization research that draws on the post-structural theorizations of contemporary power relations provided by Michel Foucault and Gilles Deleuze. The intertwined theoretical projects of Foucault and Deleuze would perhaps seem an unlikely source of inspiration for understanding financialization. Neither theorist directly and consistently addressed questions of money and finance, nor could their writings several decades ago foretell the present significance of financialization processes. Nonetheless, Foucault and Deleuze feature widely across academic disciplines in critical accounts of financial markets and analyses of financialization.

The opening section below concentrates on the body of financialization research that to date has drawn most thoroughly on the post-structural theories of Foucault and Deleuze. Both theorists are sources of inspiration for research into the financialization of the everyday routines and rhythms of socio-economic life. Indeed, important reviews of the financialization literature characterize post-structuralism as an approach that is primarily concerned with everyday life (van der Zwan, 2014). Post-structuralism contributes to enriching critical understandings of how everyday life is becoming financialized, especially by furthering analysis of the ways in which governmental rationalities and techniques configure economies, cultures and subjectivities of speculation and indebtedness.

The second section of the chapter will suggest that Foucauldian and Deleuzian theorizations of power have the potential to facilitate a more wide-reaching agenda for research that includes, but also extends well beyond, everyday socio-economic life. Foucault and Deleuze are deployed individually or together across extant research into financial markets and financialization processes. They are also variously mobilized without and within Marxist political economy frameworks. Notwithstanding the diverse uptake of Foucault and Deleuze, they provide a coherent critical

analytical agenda for the study of financialization that is rooted in their prescient theorizations of the distinctive character of contemporary power relations (Deleuze, 1992, 1999; Foucault, 1991, 2007, 2008). Foucault and Deleuze encourage a focus on the co-production of financial knowledge and techniques, on the one hand, and contemporary power relations, on the other. They can thereby further analyses of financialization processes that foreground how financial logics and techniques are incorporated into, and are constitutive of, the prevailing power relations that seek to control and secure life under neo-liberal capitalism. Foucault and Deleuze draw attention, in short, to the conditions under which the financialization of life becomes possible and, for the present at least, continues apace.

The third section of the chapter illustrates the potential of a wide-reaching post-structural agenda for research into the financialization of life. A body of scholarship is drawn together that - developing somewhat separately from the reception of Foucault and Deleuze into the financialization literature - centres on the co-production of the new life sciences and contemporary power relations. Key contributions to this scholarship already highlight the speculative qualities of the life sciences and their so-called 'bio-economies', but tend not to explicitly acknowledge wider processes of financialization. What such scholarship is shown to begin to offer is an agenda for studying financialization processes that analyses the force of financial logics and techniques in the ordering of biological life. Moreover, by way of conclusion to the chapter, I point to possibilities for research into further and related modalities of the financialization of life, processes that include both the infrastructural conditions of life and more-than-human life.

Financialization and everyday life

In the wake of work by Marxist, post-Keynesian and institutional political economists that analyses the shifting balance between the financial and productive economies - including changes in

corporate form and management prompted by the privileging of shareholder value - financialization research has been marked by a pair of related tendencies. First, the literature stresses how the reach of financialization processes extends well beyond the productive and corporate economies. Whilst clearly not without contestation or limit points (see Christophers and Fine 2019, in this volume), financialization appears to be a set of voracious processes that crystalize financial logics and values across multiple domains. Uninterrupted, and actually deepened in the course of the global financial crisis (Davis and Williams, 2017), financialization processes are now arguably being experienced more widely and acutely than ever.

Second, when developing critical understanding of financialization processes beyond the productive and corporate economies, scholars also tend to broaden the theoretical remit of financialization research beyond political economy frameworks. To be clear, political economy is typically not jettisoned altogether by financialization researchers, especially given the crucial insights that Marxism holds for understanding the character and content of capitalist finance. However, more-often-than-not and in one way or another, political economy approaches are challenged or nourished with concepts and ideas taken from the wider body of social theory. Illustrative in this respect is the tendency for reviews of the financialization literature to begin by providing an overview of political economy work before turning to cover research from different theoretical perspectives that is variously positioned as contrasting to, or complementary with, political economy research.

One important manifestation of the tendencies to broaden the empirical and theoretical remit of financialization research is the literature that studies how these processes are transforming the everyday routines and rhythms of socio-economic life (Erturk *et al.*, 2009; French, Leyshon, and Wainwright, 2011; van der Zwan, 2014). This is not to say that everyday socio-economic life doesn't feature in institutional and Marxist political economy accounts of contemporary capitalism (e.g.

Crouch, 2011; Lapavistas, 2011). What usually marks research into the financialization of everyday life, however, is a dissatisfaction with macroeconomic and structural accounts of change (van der Zwan 2014: 111-2). To apprehend financialization processes as they are experienced, faced and felt by households and individuals, research therefore tends to turn to, and be informed by, a wider body of social theory that may include, but which usually extends beyond, political economy approaches.

Particular impetus has been given to research into the financialization of everyday life by the post-structural theorizations of power provided by Michel Foucault and Gilles Deleuze. Such theorizations of power feature, for example, in research that coalesces around the notion of 'finance/security' (de Goede, 2010). Influenced in particular by the lectures that Foucault (2007, 2008) originally delivered during the late 1970s at the Collège de France, research into finance/security emphasizes that financial logics and techniques loom large in the formulation and execution of the contemporary neo-liberal government of social and economic life as problems of security. This is because finance and security share an ontological conundrum - how to confront the uncertain future – and a shared epistemology of risk that is manifest in the deployment of risk management techniques and tools in order to render the future actionable in the present (Boy, Burgess and Leander, 2011). It follows that the financialization of everyday life is a manifestation of a powerful governmental rationality and a range of risk management techniques that regard uncertain financial market circulations in positive and productive terms as vital to securing socio-economic life.

By analysing the changing socio-economic experiences and practices of households and individuals in relation to the development of neo-liberal governmental programmes, finance/security research has thus made a distinctive contribution to understanding financialization. The financialization of everyday life is understood primarily in relation to a particular regime of neo-liberal governmentalized power that, including market deregulation and the privatization and

individualization of welfare, features the instantiation of techniques of self-government, or what Foucault (1991) terms 'governmentality'. In the USA and UK in particular, neo-liberal governmentality is shown to have positioned financial markets as crucial to securing the future wealth and wellbeing of the population (Aitken, 2010; Langley, 2008, 2015). Everyday routines and rhythms of saving and borrowing are transformed by extensive and intensive relations with the uncertain circulations of global financial markets. The choices confronted by 'free' individuals and households are not over whether to invest in the markets or to take on debt, but how best to do so.

As a technology of self-government, mutual fund investment has become privileged, for example, over and above both retail deposit account saving and collective, state and employer-guaranteed retirement insurance. The meaning of 'security' and 'risk' is changed, then, and is no longer a matter of individuals and households making thrifty provision for a rainy day, or collectively insuring against future dangers. Such change is not simply a 'shift' of risk from the state and corporations to households and individuals (e.g. Hacker 2008), but rather a rearticulation of risk and uncertainty as opportunities to be embraced via the markets by entrepreneurial investor subjects who seek to secure their future wealth and wellbeing. Moreover, mortgages and consumer credit have also come to be regarded as playing a positive role in facilitating the security and prosperity of all, and are differentially priced in terms of the creditworthiness of borrowers and associated default risks (Marron, 2009; see Aalbers, 2019, and Gonzalez, 2019, in this volume, on housing and consumer loans). While the global financial crisis of over a decade ago starkly exposed the ways in which outstanding debt obligations and accompanying risks from everyday borrowing are repackaged into objects of securitization and speculation by wholesale financial markets, obligations and risks have also become an object for management and manipulation by debtor subjects themselves (Langley, 2014).

The contribution of Foucault and Deleuze to the study of the financialization of everyday life is also apparent when these post-structural theorists are mobilized alongside Marx. For autonomist Marxists such as Maurizio Lazzarato (2012), for example, the credit-debt relation is held to have displaced the labour relation in neo-liberal capitalism, such that credit-debt relations between “owners” and “non-owners” of capital are becoming “the basis of social life” (pp. 13-36). And, in explicitly Deleuzian terms, the debt relations of households and individuals are said to feature the “machinic subjugation” of credit scoring techniques which “dismantles the self, the subject, and the individual”, such that credit and creditworthiness can be differentially assessed and priced in terms of risk (p. 150). At the same time, and in more Foucauldian terms, the expansion of credit-debt relations is a governmentalized form of power that “breeds, subdues, manufactures, adapts, and shapes subjectivity” (p. 39). Debtor subjects are hailed who, animated by debt’s moral economy of responsibility and guilt (pp. 135-161; see also Stimilli, 2017), ceaselessly work on themselves and their finances in order to make good on their obligations and creditworthiness.

Without and within Marxist political economy approaches, then, Foucault and Deleuze have attuned researchers to the transformations of everyday socio-economic life wrought by the governmentalized force of financial logics and the operations of financial techniques and devices. Attention is drawn, in particular, to logics of speculation and indebtedness that advance economies of rent and value capture but which, at the same time, also install certain and ongoing financial futurities and (in)securities into the ordering of everyday life. The pervasive influence of the financial logic of speculation is, for instance, a triumph of the governmental rationale of “speculative security”, in the terms favoured by the finance/security literature (de Goede, 2012; Morris, 2018). Volatile financial market circulations pose dangers to the security of the population that have to be mitigated, but their vicissitudes and indeterminacies also present opportunities that are vital to the dynamic production of future wealth and wellbeing across the population (Langley, 2015). Not dissimilarly, from Haiven’s (2014; 2019, in this volume) primarily Marxist perspective, the speculative

character of the financialization of everyday life advances because of the growing hold of imaginaries and techniques of 'fictitious capital' over popular culture.

For autonomist Marxists, meanwhile, an emphasis on the logic of speculation and security obscures the significance of credit-debt as both an economic and governing relation under neo-liberal capitalism. From this perspective, it is the logic and techniques of indebtedness that prevail throughout everyday socio-economic life, and the intensification of socio-economic insecurity is an ever-present, structural condition of life (Lazzarato 2012). However, as Lisa Adkins (2017) persuasively argues, guilt-racked struggles with indebted life also feature a logic of speculation, as "debt society demands subjects who must constantly adjust to recalibrations of pasts, presents and futures as well as to changes in the relations between and across these states" (p. 448; also Konings 2018).

Rather than retrenching under the weight of its own contradictions or reaching its limits as populations become increasingly indebted, the financialization of everyday life continues apace at present. To extend Lauren Berlant's (2010) astute analysis of contemporary economy and society, the financialization of everyday socio-economic life is sustained by the "cruel optimism" of speculation, as "the predominance of finance ... brings people together only to seem to take away what they thought they possessed" (Martin, 2002: 16). Optimistic and hopeful promises of opportunities and better times to come that can be seized through speculation and entrepreneurship serve to absorb and dissipate the tensions and conflicts engendered by growing inequality and indebtedness.

Financialization and post-structural theories of power

Given the influence of Foucault and Deleuze on contemporary social theory, it would be surprising if these post-structural thinkers were not present in a burgeoning financialization literature that continues to broaden its empirical and theoretical remit. In this section of the chapter, however, I want to suggest that Foucault and Deleuze provide for a coherent critical research agenda for the study of financialization. This is an agenda that includes, but also extends well beyond, the financialization of everyday socio-economic life. Consistent with analysing the financialization of everyday life through a focus on the relations between the socio-economic experiences of households and individuals and the programmes and techniques of neo-liberal government, this more wide-reaching agenda is rooted in the theorizations of the distinctive character of contemporary power relations that are offered by Deleuze (1992, 1999) and Foucault (1991, 2007, 2008).

The agenda for financialization research provoked by the post-structural power theories of Foucault and Deleuze is distinct from their influence on the so-called 'social studies of finance' (SSF) (MacKenzie, 2009; Coombs and van der Heide, 2019, in this volume). A host of Deleuzian concepts animate this cross-disciplinary literature, including, concepts such as "diagram" (Aitken, 2015), "virtuality" (Arnoldi, 2004), "war machine" (Erturk, Leaver and Williams, 2010), "fold" (Langley, 2018a), and "rhizome" (Vlcek, 2010). However, the core research agenda of SSF is to provide an alternative to atomised and institutional accounts of agency in financial markets that stresses the socio-technical, material and relational character of financial market action (see also Chiapello 2019, this volume). This is an agenda that typically springs from the Deleuzian concept of "assemblage" or "*agencement*", while some contributors to SSF turn to Foucault's concept of '*dispositif*' ('apparatus'), not least because it holds particular efficacy for analysing governmental actions during periods of financial crisis management (Langley, 2015).

In contrast, the post-structural theories of power provided by Foucault and Deleuze prompt research into financialization processes that foregrounds the co-production of financial knowledge and techniques, on the one hand, and contemporary power relations, on the other. By way of illustration, consider again post-structural accounts of the financialization of everyday life. The prominence of finance across economy and society is not essentially new, but the present day reach of finance throughout everyday socio-economic life would seem to be of a different order (Erturk *et al.*, 2009). Offering a better understanding of the conditions under which this is possible is, put simply, where the poststructuralism of Foucault and Deleuze comes in. Deployed without and within Marxist political economy approaches, Foucault and Deleuze provide for accounts of the financialization of everyday life that are rooted in a productive and relational theorization of power. As financialization penetrates deep into the spaces, routines and rhythms of socio-economic existence, Foucault and Deleuze prompt recognition that these processes cannot simply be traced to powerful class interests and the constraining actions of elites (cf. Davis and Williams, 2017; Epstein, 2019, in this volume). Neither does the circulation of expert and popular financial knowledges serve the ‘ideological obfuscation’ of elite and class interests (Haiven, 2014: 13). Financial logics and techniques are instead held to be better understood in constitutive terms, and as governmental forces that configure everyday economies, cultures and subjectivities. Equally, while state and market institutions are certainly crucial to the financialization of everyday life (van der Zwan, 2014), from a post-structural perspective institutions are incorporated within a decentred and relational understanding of the rationalities, programmes and techniques of governmentalized power (Langley 2015).

What unites Deleuze and Foucault as theorists of power is their preoccupation with the particular mode of power that has taken hold in the wake of the disciplinary liberal societies of the mid-twentieth century (Foucault, 1977). For Deleuze, a new “diagram” of power is in operation in the contemporary period (Deleuze, 1999), one that he characterizes as “the societies of control”

(Deleuze, 1992). Power in the societies of control has a new and different spatial-temporal logic. It does not primarily work on individual bodies in a disciplinary and linear fashion, as they pass into and through relatively enclosed institutions such as the prison, factory, school, hospital, family and so on. Rather, control operates to “modulate” disaggregated and dissected “*“dividuals”*”, that is, it works through “masses, samples, data, markets, or ‘banks’” (Deleuze 1992: 4, *emphasis in original*). For Deleuze (1992), the spatial-temporal logic of the contemporary mode of power is such that “the man of control is undulatory, in orbit, in a continuous network”, a subject required to confront the uncertainties of “*limitless postponements*” in “continuous variation” (p. 5, *emphasis in original*). Crucial to the emergence of the new power logic and computerized technologies of control societies is the shift from the factory to the corporation that accompanies the rise of “a capitalism of higher-order production” (p. 6), a capitalism of distributed supply chains, marketing and incessant regulation by market mechanisms.

For Foucault, meanwhile, the “contemporary system” of “biopolitics” and “governmentality” contrasts with previously dominant sovereign and disciplinary modes of power and forms of liberal administration (2007: 6-8). The contemporary system seeks to secure life itself (not the security of the state) (Foucault, 2007, 2008), and to govern “at a distance” and through the apparently natural and uncertain processes that are “immanent to the population” (Foucault, 1991: 100). Crucial to the power-knowledge relations of the contemporary system is the constitutive role of the biological and economic sciences. Thus, life and population are not only figured as the objects of government, but are understood as abstracted “processes of a naturalness specific to relations between men”, including “what happens spontaneously when they ... exchange, work, and produce” (Foucault, 2008: 349). While liberal government includes juridical limits on sovereign power and legal guarantees of the rights of individuals, neo-liberal government is marked by a second set of limits on sovereign power that arise from the biological and economic sciences; that is, the supposedly ‘natural’ laws and logics of the market. Neo-liberal governmentality, therefore, does not seek to

standardize and synchronize individual bodies in and through the enclosed institutions of the disciplinary mode of power, but instead intervenes in the uncertain conditions that impact on the life of the population.

For Deleuze and Foucault, power relations that seek to control, secure and govern life entail important corporate, economic and market dynamics, but do not necessarily feature financial logics and techniques. Subsequent research by post-structural scholars of financialization has been required to variously show how financial logics and techniques are incorporated into, and are constitutive of, the configuration of contemporary power relations originally elucidated by Foucault and Deleuze. For those drawing more exclusively on these theorists - and largely setting aside Marxist political economy - such research has centred on the role of financial logics and techniques in the speculative security practices and governmental programmes of neo-liberal life (e.g. Aiken, 2010; de Goede, 2010, 2012; Langley, 2008, 2015, Morris, 2018). Meanwhile, for autonomist Marxists, Foucauldian and Deleuzean theorizations of power facilitate the identification of a change in the dominant logic of present day capital – i.e. the passing from profit (accumulated via commodity production and circulation) to rent and value capture that operates on the terrain of social reproduction. The engine of contemporary capitalism is understood to be “finance’s subsumption of life” (Lucarelli, 2010: 136). What post-structural theories of power explicitly prompt, then, is research into the financialization of life, or what might be termed, by way of shorthand, processes of “bio-financialization” (French and Kneale, 2012; Lilley and Papadopolous, 2014).

Financialization of biological life

Although post-structural research into financialization processes has to date been pursued most thoroughly by work on everyday socio-economic life, the agenda for research into the financialization of life that develops from Foucauldian and Deleuzean theorizations of power is a

more extensive and wide-reaching one. This section of the chapter will therefore mark out a modality of biofinancialization that is related to, but different from, the financialization of everyday socio-economic life. It will draw together a body of scholarship that has developed largely in parallel with, and somewhat divorced from, the reception of Foucault and Deleuze into the financialization literature. The body of scholarship in question is primarily found within the fields of science and technology studies, anthropology and the humanities, rather than within the heterodox economics, sociology, geography, cultural studies and political science disciplines which tend to dominate financialization research. What I want to show, however, is that this scholarship provides an entry point for researching financialization which analyses the force of financial logics and techniques in the ordering of biological life.

It is clearly the case that, as Deleuze (1992: 4) remarks when fleshing out the emergence of the societies of control, “the extraordinary pharmaceutical productions, the molecular engineering, the genetic manipulations ... are slated to enter into the new process.” However, one of the notable features of post-structural research into the new life sciences and rise of bio-technologies is that it has provoked and carried forward a debate over post-structural theorizations of power. The crux of debate is dissatisfaction with how Foucault and Deleuze characterized the reorientation of contemporary power relations as acting primarily on and through the dynamic abstractions of populations (e.g. rates of birth, death, disease, etc.) and ‘dividuals’ (i.e. “masses, samples, data, markets, or ‘banks’”) (Lemke, 2011: 93-6). This is because contemporary biological science (e.g. genetics, reproductive technologies, transplant medicine) is transforming nature. As Thomas Lemke summarizes, biology is “no longer” only “a science of discovery that registers and documents life processes”, but is becoming “a science of transformation that creates life and actively changes living organisms” (2011: 94-5) . It follows that ‘life’ is framed, controlled and secured somewhat differently from the theorizations of power provided by Foucault and Deleuze, not least because bodies are molecularized in ways that they did not anticipate or explore in any detail (Braun 2007).

The literature that centres on how contemporary bio-scientific knowledge goes hand in hand with the post-disciplinary power relations of neo-liberal capitalism thereby works with a more comprehensive theorization of the power relations that act on life, grounded in an appreciation of how understandings of biological life are currently changing. In this respect, it undergirds an expansive agenda for research into bio-financialization processes that has the potential to include the financialization of biological life. Key contributors to the critical literature on the life sciences interrogate the associated emergence of so-called 'bio-economies'. They commonly identify how the "commercialization" and "corporatization" of the new life sciences are powered by investments of capital and hope (e.g. Sunder Rajan, 2012), but do not sufficiently relate this to the distinctive, financializing character of contemporary neo-liberal governmentality and capitalism. Kaushilk Sunder Rajan (2006), for example, offers an account of bio-medicine (especially genomics and pharmaceuticals) that, combining Foucault with Marx, draws out the dynamics of what he calls *Biocapital*. For Sunder Rajan, "biocapital" is the outcome of an uneasy relationship between "two simultaneous, distinct, yet mutually constitutive forms of capital, one directly dependent on the production of the commodity, the other speculative and only indirectly so" (p. 9). While "the manufacture and sale of therapeutic molecules" is key to the profitability of the Indian companies that feature strongly in Rajan's fieldwork, this is less the case for bio-tech companies in the United States where "valuation is more directly dependent on speculative capital" (p. 9).

For the Foucauldian Nikolas Rose (2006), meanwhile, when it is "Conducted at a molecular level, biology and medicine require long periods of investment" to fund equipment, laboratories, clinical trials and regulatory processes "before achieving a return" (p. 31). This reliance on long-term investment – "subject to all the exigencies of capitalization, such as the obligations of profit and the demands of shareholder value" - serves to shape "the very direction, organization, problem space, and solution effects of biomedicine and the basic biology that supports it" (pp. 32-3). Investments

are made on the expectation of “bio-value”; that is, “the value to be extracted from the vital properties of living processes” that will deliver both improvements to human health and economic returns (pp. 32-3; see also Sunder Rajan, 2012; Walby and Mitchell, 2006). As “Biopolitics becomes bioeconomics” (Rose, 2006: 32-4), then, it is “promissory capitalism” that comes to the fore.

Melinda Cooper’s (2008) book *Life as Surplus* provides, meanwhile, perhaps the most provocative and suggestive account of the bio-economies of the new life sciences. Cooper combines theoretical insights from Marx and Foucault to analyse the intersections of biological processes and strategies of capital accumulation, especially their configuration in the bio-tech industry in the United States. While the life sciences carry forward the molecularization of human life as new opportunities for the appropriation of value by capital, they also install ecological and complex-systems thinking as core to the orderings of neo-liberal capitalism. The future-facing speculative logic of neo-liberal capitalism is, for Cooper, a result of the intersections of the power of the new bio-sciences with finance and the flowering of attendant beliefs in the adaptive capacities of human life that confront and transcend ostensible ecological and economic limits. Cooper (2008: 10) is thereby clear that “What neoliberalism seeks to impose is not so much the generalized commodification of daily life ... as its financialization.” Life is rendered valuable in terms of the “nonmeasurable, achronological temporality of financial capital accumulation” (p. 10), such that, for the life sciences in particular, “the financial markets have become the very generative condition of production, making it impossible to distinguish between so-called economic fundamentals and the perils and promises of speculation” (p. 24).

Cooper (2008) is thus something of an exception within a literature that typically identifies speculative logics as significant to bio-economies, but which tends not to explicitly relate the prevalence of these particular economic forces and drives to broader processes of financialization. Indeed, as Kean Birch (2017: 462) has recently argued, although existing research into the life

sciences is certainly attentive to “‘speculative’ value in the bio-economy”, it remains largely within “a theoretical framework built on notions of biological materiality, commodity production, and commodification.” For example, even though for Cooper (2008: 25) “The drive to overcome limits and relocate in the speculative future is the defining movement of capital”, she nonetheless holds that there is “one limit that capitalism never escapes – the imperative to derive profit.” Speculative investments are typically understood to be essential to the production of the commercial life sciences, then, but are nonetheless regarded as something of an aberration from the creation of value that materializes in products, services, or intellectual property. Yet understanding the financialization of biological life as a modality of bio-financialization requires that greater attention is paid to the ways in which the future promises of “bio-value” (Rose 2006) are actually “constitutive of value in the present” (Birch, 2017: 462), and how financial logics and techniques continue to produce and sustain life sciences firms as investable assets despite the overall dearth of products and services.

Conclusions

This chapter has explored research into financialization that, without and within Marxist political economy, has taken up the post-structural theorizations of power provided by Michel Foucault and Gilles Deleuze. It has suggested that Foucault and Deleuze offer a critical analytical agenda for the study of financialization, one that foregrounds how financial logics and techniques are incorporated into, and are constitutive of, the governmentalized power relations that seek to control and secure life under neo-liberal capitalism. The chapter has concentrated, in particular, on two modalities of the financialization of life: the financialization of everyday life that configures economies, cultures and subjectivities of speculation and indebtedness; and, the financialization of biological life that construes the molecularization of life by the new life sciences as fundamentally and perpetually speculative.

By explicating the financialization of biological life, the chapter has shown that limiting post-structural research to the financialization of everyday life is to conceive of the scope and dimensions of bio-financialization too narrowly, to think of 'life' too restrictively and largely in terms of the concrete corporeality of individual bodies and abstracted populations. Yet, expanding the remit of research into the financialization of life in this way also runs up against the anthropocentric limitations of post-structural theories of power identified by Karen Barad (2007), amongst others, and their autonomist Marxist applications that neglect more-than-human nature in accounts of capitalist accumulation (Johnson, 2017). There is a danger that research into the financialization of life is still framed too narrowly, then, when it is concerned only with how these processes are transforming both everyday life and biological life.

Debates that continuously develop and update post-structural theories of power are thus of considerable import for the financialization of life as a critical research agenda. Particularly pertinent in this regard is the debate that probes how neo-liberal governmental power variously works on more-than-human matter. In a recent intervention by Thomas Lemke (2015: 5), for instance, neo-liberal government is said to act on "the interrelatedness and entanglements of men and things, the natural and the artificial, the physical and the moral." Such interventions have the potential to provide the theoretical grounding for the further extension of research into the financialization of life to include additional modalities of bio-financialization. Indeed, a broader research agenda of this kind is also the compelling ambition of autonomist Marxist analyses of "the logic of financialized (bio)capitalism" (Marazzi 2010: 66). As Lilley and Papadopoulos (2014: 972-5) suggest, bio-financialization processes can be understood to centre on "everyday life, subjectivity, ecology and materiality", flourishing precisely because they "extract value from reproduction, distribution and

consumption as well as other activities and the material surroundings which do not directly belong to the immediate sphere of production.”

There is, for instance, a well-established and growing literature in human geography on the financialization of urban infrastructures. Such material infrastructures are governed as strategically significant and ‘critical’ to securing circulations and the life of the population (Aradau 2010), but research to date has only rarely explored these processes as a modality of bio-financialization (Langley 2018b), or as what we might term the financialization of the infrastructures of life. Similarly, consider the proliferation and growth of a host of markets for ‘green finance’ that are heralded as crucial to the future of the planet (see also Bracking 2019, in this volume, on financialisation and the environment). While accounts of the neo-liberal government of the environment as “neo-liberalizing natures” recognize that this “financializes the inherent productivity of nature” (Braun 2015: 1), it would seem apposite to analyse these processes in post-structural terms as another form of bio-financialization, the financialization of more-than-human life. Post-structural research into the financialization of life has already made an important contribution to the study of these processes in everyday socio-economic life. But it also has further and presently underdeveloped critical potential for interrogating the ordering force of financial logics and techniques, not least in relation to biological life, life’s infrastructural conditions, and more-than-human life.

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