Neoliberal Precarity and *Primalization*: A Biosocial Perspective on the Age of Insecurity, Injustice and Unreason

> …everywhere we find uneasiness about the soundness of our society and concern about its future. More and more of us doubt whether we can trust our institutions, our elected officials, our neighbours, or even our ability to live up to our own expectations for our lives. And anxiety is always close to the surface, a haunting fear that things have somehow gone wrong (Bellah et al 1996: vii).

The above, from the 1996 revised introduction to Robert Bellah's work on pre-millennium US society *Habits of the Heart*, expresses sentiments that could be applicable to many periods and, indeed, locations since the advent of modernity (Bellah et al. 1996). It might be reasonably argued, however, that they resonate acutely in the current era, and can clearly be related to a condition that is being experienced across many so-called developed economies and societies at the present time. In fact, this is occurring to such an extent that it seems almost trite to observe that something particularly unsettling has been emerging recently, in terms of a growing sense of destabilization spanning the personal, the political and the social. Indeed, what have been broadly regarded as major advanced economies and societies - in terms technological advancement, developed economic markets, social and organisational complexity, as well as presumed relative political and social stability - appear to be experiencing a regressive transition where longstanding expectations seem to be unravelling apace. While these trends are being manifested throughout many societies, this piece focuses largely on the West, and principally the UK and US, where destabilising changes that have been developing over the last few decades have been accelerating since the emergence of the COVID 19 pandemic, delivering an epochal shock that can be seen to have further laid bare many of the shortcomings of our current neoliberal socio-economic system while exacerbating already growing social and political tensions.

The Neoliberal Turn

There have been endless analyses citing the neoliberal form of political and economic organisation as the source of contemporary malaise (Beck 1992; Harvey 2005; Standing 2011; Stiglitz 2012; Dorling 2015). Advanced chiefly in the Anglo-Saxon economies of the US and UK since the late 1970s[1], neoliberalism emerged as the political, economic and cultural common sense of Western societies, while being extended to greater and lesser extent across the globe. While some commentators have questioned the utility of neoliberalism as a concept, in its key hallmarks of adherence to market fundamentalism, free trade, privatisation, deregulation, competitive individualism, 'self-reliance' and opposition to state intervention, taxation, public services and welfare provision, it can perhaps be reasonably suggested that we know it when we see it (Brenner et al. 2010).

The intellectual foundations of neoliberalism, as widely observed, were initially advanced by the liberal economists of the *Mont Pelerin Society*, including Friedreich Hayek and Milton Friedman, from the late 1930s onwards (Harvey 2005). Its further propagation was also aided by enthusiastic support from financial and business interests disaffected by the turn to Keynesianism and social democracy that, it was argued, limited 'freedom' and economic performance via stifling state regulation, 'punitive' taxation and 'recalcitrant' unionised labour (Harvey 2005). The funding of pro-neoliberal think tanks, influence of a largely supportive mass media, and the lobbying of sympathetic politicians ensured that this doctrine became firmly established by the mid-1980s (Harvey 2005). In a sense, it can be argued that neoliberalism has represented a return to something broadly akin to the form of capitalism that prevailed prior to the New Deal/Social Democratic era that emerged in the aftermath of the Great Depression and Second World War through to the mid to late 1970s, while the latter now

[1] It must be noted that, while neoliberalism had it's intellectual roots in mainland Europe, and was notably introduced in Pinochet's post-coup Chile, it's success and proliferation was for the most part predicated on the credo being embraced and advanced by US and UK business and political elites. The Chile 'experiment' was implemented by the so-called 'Chicago boys' (former students of Milton Friedman in the US) and as an ideological arm of the anti-socialist CIA backed coup, and forerunner to neoliberal structural adjustment programmes instigated by the US and advanced World Bank and IMF throughout the late 20th century.

appears as a brief social democratic hiatus rather than a sea change in capitalist economies (Harvey 2005; Bone 2010; Neilson and Rossiter 2008).

While recognising that there were numerous residual inequities during the post war period itself, the worldview forged during that period was one where there was an expectation of ongoing progress, democracy, security and social and economic stability, and where poverty and excessive inequality should be addressed via modern state governance (Toniolo 1998). By contrast, the neoliberal era has represented a resurgent phase with respect to longstanding issues of sociological concern, in terms of precarity, flux, inequality and insecurity**,** a scenario now being exacerbated by the impact of new technology on the economy and social interaction with these trends being accelerated by the global pandemic (Harvey 2005; Bone 2010; Stiglitz 2012; Standing 2011; Dorling 2015).

Precarity & Inequality

The notion that predictability and security are central to societal well-being is an almost unquestioned assumption within sociology. Thus, Durkheim's concept of *anomie*, describes a state of normlessness he considered central to a broad range of social pathologies (Durkheim 1893). Simmel pointed to the bewildering, complex and unpredictable presentation of early urban environments, particularly for those unaccustomed to them, as being a major source of *nervous exhaustion* (Simmel 1903). Moreover, Wirth's concept of *social disorganisation* (1940) and Goffman's discussion of '*normalcy and alarms'* (1971), underline the fact that classical figures in the social sciences shared a concern regarding the negative personal and societal impact of uncertainty and precarity.

The mid 20th century works of the Frankfurt School theorists have also been highly influential in addressing what they regarded as the travails of modern capitalist societies. Inevitably, it is impossible to engage with many of the dimensions of the Frankfurt School's rich contribution here. However, of particular relevance to this piece, a key concern was (for wholly understandable reasons given the members of the collectives' life histories) in understanding the conditions that led to the rise of fascism

in the pre-war era, as well as the psychological mechanisms contributing to reactionary and populist impulses more generally (Abromeit 2018). Gordon (2016) and Abromeit (2018) have both applied a Frankfurt perspective, and particularly Adorno's treatise on *The Authoritarian Personality*, to an analysis of the rise of contemporary populism and the rise of Trump. Gordon (2016), for example, draws on Adorno's psychoanalytically informed characteristics of the authoritarian personality in his approach, which is in essence founded on the Freudian hydraulic model of emotion and repression. However, as outlined below, the roots and nuances of psychological 'distortions' generating vulnerability to populist overtures are understood differently here, from the perspective that the psychoanalytic ideas that inform Adorno's perspective have now been largely superseded. This is no way detracts from many of the powerful insights and standing of the work of Adorno and the other Frankfurt theorists, but simply observes that the analysis was accomplished via the lens of the dominant psychological understandings that were available at the time. What is pertinent, however, as Abromeit (2018) observes, is that the Frankfurt School theorists shared many of the concerns addressed here, albeit that their analysis spanned the insecure pre-war and more settled post-war period, with the Frankfurt theorists recognising that the socio-economic settlement of the latter period provided less fertile ground for populist movements and political turbulence. Nonetheless, they were acutely aware of the relationship between the dislocating, insecure and inequitable features of capitalism and their negative impact on mental health, solidarity and democracy, particularly during periods where capitalist interests have been relieved of wider social obligations and effective pro-social democratic control (Abromeit 2018).

More recent works, such as Ulrich Beck's (1992) thesis on the *Risk Society* and his later *Brave New World of Work* (2000), reinforced the critical perspectives advanced by earlier writers. Beck's analysis also reached beyond the economic and cultural to also encompass concerns around scientific, technological and environmental developments as sources of contemporary insecurity (1992). Moreover, via the concept of *reflexive modernisation*, advanced by Beck together with Scott Lash and Anthony Giddens, the economic, political, scientific and technological institutions of modernity were

depicted as being no longer engaged in the confident delivery of a progressive future (Beck, Giddens and Lash 1994). What Beck and his associates presented is an image of an increasingly interconnected, globalised world where the confident intentions of a post-Enlightenment rational modernity had fractured, to produce a milieu where confidence had been supplanted by inherent uncertainty. Broadly similar prognostications were advanced by other sociological luminaries such as Zygmunt Bauman, and a host of others (Bauman 2000). A common thread running through all of these accounts is a concern as to the severe impact that a lack of confidence, coherence and control over individual and collective lives exerts on societies as a whole.

If insecurity is the bane of the contemporary era then inequality is surely its symbiotic companion. Compounding the insecurities that neoliberalism has wrought are the inequities that have accompanied their distribution. Burgeoning inequality, in terms of the allocation of both resources and risk within and across many nations has expanded exponentially in recent decades, a scenario recognised even by the business and governmental elites of the World Economic Forum (2017). Indeed, as Harvey (2005) argued, the neoliberal project's asserted aim of increasing economic dynamism and efficiency appeared less important to many of its protagonists and cheerleaders than the restoration of the elite power and class privilege that had been challenged in the post war era, an aim that has been effectively accomplished. As is argued more extensively below, economic inequality and insecurity together are clearly central to the overall malaise of contemporary society, much as they were in the past.

> We live in an increasingly hierarchical society. We talk about some people being way above and others way below other people. And yet we are not that different from each other. This sham hierarchy has been created by elitism, exclusion, prejudice, and greed. The end result is increasing amounts of despair, not only among the poor, but also among groups like the children of aspirational parents. If we want a content and happy society, we are currently going in the wrong direction (Dorling 2015).

For most sociologists the above is so well observed that there may be little to add or to argue with, at least beyond presenting variations on a theme and squabbling over definitions and detail. Thus, the key themes that permeate the majority of critical accounts of neoliberalism is that it has indeed produced a more precarious economic, social and political environment, with greater inequity and an associated range of personal, communal and societal ills (Beck 1992; Harvey 2005; Kalleberg 2008; Wilkinson and Pickett 2009; Standing 2011). However, this paper asserts that such analyses tend to offer plausible description of cause and effect but, critically, lesser understanding of the interceding processes that produce those effects or their wider ramifications, while the changing circumstances of the present indicate that there is also a case for previous accounts to be revised in light of both the shifting socio-economic context.

From this perspective, it is proposed that broader understanding is achievable by reassessing the relationship between the economy, society and the individual within a capitalist/technological lifeworld undergoing a further fundamental phase of digitally mediated destabilising metamorphosis, while also exploring emerging understandings of human beings' biosocial constitution and how this might relate to such shifting socio-economic circumstances. Approaching these issues from the latter standpoint it is argued that many contemporary issues of public concern, such as rising economic and personal crises, political instability, violent crime and public disorder are, in various ways, interrelated manifestations of a broader, more fundamental, and poorly understood, collective biopsychosocial phenomenon; a process of *primalization*[2] affecting contemporary individuals and societies.

[2] This term has been employed elsewhere but in a different context and with a fundamentally different meaning from its employment here (Gibertson 2012).

Towards a 'VUCAworld'

> As the world seeks to address the rise of populism and nationalism, it is becoming clear that economic insecurity lies at the heart of much of the discontent. In the wake of the global financial crisis, voters in wealthy countries began to lose faith in the state's ability to protect them. The profound changes sweeping labor markets, caused by the rise of technology and continued globalization, have only deepened this anxiety (Andersen (IMF) 2018).

One useful concept that appears to capture key dynamics of the current era, and the experience of living it, arose in response to the US military's attempts to comprehend the world that has emerged since the demise of the Cold War era; the period where neoliberal led capitalism was hailed triumphant on the global stage (Stiehm and Townsend 2002). Known by the acronym **VUCA** (**volatility, uncertainty**[3]**, complexity and ambiguity**), the concept has gained some traction within the business world. However, it is not difficult to see how Stiehm and Townsend's concept might be usefully applied more widely by contemporary social scientists attempting to address the evolving conditions of the present (2002). Thus, the VUCA concept implies a lifeworld that is even more diaphanous and potentially bewildering than that described by Beck, Bauman, Giddens etc at the turn of the century, as VUCA's four dimensions present as interrelated facets of a more critically unstable social milieu (Beck 1992; Bauman 2000; Stiehm and Townsend 2002).

Volatility

In terms of volatility, it is clear that since the onset of the credit crisis of 2007/8 there has been a protracted period of economic, social and political turbulence, marked by the UK's vote to leave the European Union (Brexit), the Donald Trump presidency, public protest opposing a range of inequalities and environmental concerns, together with the rise of populist, and particularly far right politics across

[3] The term 'unpredictability' rather than 'uncertainty' has previously been employed in relation to this concept, while the commonly used version is employed here.

a number of European nations. The interplay between growing economic insecurity and widening cultural divisions has been cited as fuelling the rise in populist politics and precipitate decline in the democratic 'status quo', a scenario being replicated across many hitherto well established and stable democracies (Inglehart and Norris 2016). Moreover, as is discussed in more detail below, recent developments in the economic and technological spheres suggest that this may represent merely a starting point in terms of this trend. While modern life of itself has become increasingly fast paced and to some extent bewildering, some measure of security and stability was established in the developed economies of the post war era, via state intervention in markets, including the stabilisation of labour markets and legislation round job security and benefits, welfare provision and the often overlooked measures that were taken to provide support and access to affordable and stable housing. While success in terms of these measures was provisional and very much a work in progress, these bedrocks of the post war settlement, as we know, have been systematically dismantled in the neoliberal era.

Uncertainty

Uncertainty is also clearly a master trend in contemporary societies, where the citizens of even developed economies like the UK and US find that longstanding expectations in that were once taken for granted, are being continuously and respectively eroded via ongoing deregulation, marketization and austerity politics (Peters 2008).

The changes in labour markets over the last four decades have clearly been profound. A key aspect of this is that corporations, relieved of a great deal of 'red tape' governing employment relations by neoliberal administrations, have increasingly focused on reducing labour costs as a means of maximising short term profits, a situation aided by assaults on organised labour and the erosion of welfare (Peters 2008; Standing 2011).

This is in part due to a renewed emphasis on shareholder value. Where corporate leaders were once focused on growing their companies over the long term, the demands of deregulated and volatile

investment markets, and the desire to defend companies against sell offs and/or hostile takeovers, has given fresh weight to immediate revenue maximisation. The emphasis on the latter has been greatly fuelled by both a normative shift that has lionised greed and competition and, not least, the fact that CEOs and senior executive pay has been linked to short-term performance.

> Under the heightened pressures of shareholder value, market expectations, and profit margins, firms have enhanced their efforts at cost reduction and the rationalization of production. Employers have also pushed for the watering down of employment protection systems for hours of work... Governments have listened and then complied. As a consequence, more people have entered the labour market and employment rates have risen. But rather than improving jobs, during the period 1990–2005 more workers were hired into part-time, temporary, low-wage and non-standard employment than ever before (Peters 2008: 85-86).

Additional means by which the above has been achieved include the much discussed offshoring of manufacturing and now service work, while the latter does not only refer to routine work but now also some more high value jobs in areas such as IT, to regions of the world where labour is cheap and where regulation and taxation is low (Agrawal et al. 2019).

These changes have a clear bearing on the argument at hand and, as suggested elsewhere, they are part of a trend that seems set to intensify going forward (Bone, 2015). In the first instance, the move towards non-standard employment and the dilution of job security undermine forward planning and predictability for workers. Thus, the job for life of the post war period has given way in the neoliberal era to a more precarious labour market condition, while this has far-reaching implications for many areas of workers lives (Standing 2011; Drobnič et al. 2010).

> Our study suggests that the issue of security, such as security of employment and pay which provides economic security, is the key element that in a straightforward manner affects people’s quality of life (Drobnič et al. 2010: 205).

This change in the composition and conditions in the labour market have been experienced across developed economies and have been pronounced in neoliberal labour markets such as the UK and US (Zwick. 2018).

> The days of a long-term social contract between companies and their employees is over. Companies instead have slowly become more reliant on workers hired on short-term contracts in place of traditional employees (Zwick 2018: 679).

It must be noted that not all contingent workers are in 'bad jobs', as some are highly qualified professionals who can command significant fees and retain a great deal of autonomy. Of those in more routine occupations, some are also supplementing full time earnings elsewhere, or are students working through college and university who are looking for flexible employment. However, growing numbers of workers now rely on precarious and poorly remunerated forms of non-standard employment as their main source of income (Zwick 2018). Moreover, the elephant in the room here is the potential for job supplanting technologies to further accelerate a decline in jobs, wages and conditions, feasibly to the extent of leaving large swathes of the working population either without work or scraping a living from piecemeal employment in the gig economy (Hines 2019). In the absence of a significant shift in the socio-economic zeitgeist, the profound impact of COVID 19 against this background seems set to turbo-charge this process.

Compounding labour market insecurities, as above, changes in housing markets have also rendered forming and sustaining a home life more precarious. In the UK, this has been greatly influenced by the sell-off of public housing, the deregulation of mortgage lending, and the return of private housing as a significant investment vehicle (Bone 2014; Tett 2009; Glynn 2009). Once more, the UK experience, despite the market's own peculiarities, has broadly been shared with the US, in that there was a property investment boom fuelled by loose credit and financial market innovation and low interest rates, where the bursting of the ensuing bubble precipitated the financial crisis of 2007/2008 (Bone 2014; Tett 2009; Glynn 2009). One of the key outcomes of this scenario has been the growth of

homelessness and of private renting on insecure terms in neoliberal housing markets, as housing costs have risen and security of tenure has fallen.

If the situation in labour and housing markets has contributed to a sense of insecurity and uncertainty, this has been underscored by the continuous erosion of welfare. Spurred on by a revival of Social Darwinist rhetoric around meritocracy - and the notion that state assistance generates dependency - neoliberal administrations, particularly in the UK and US, have been assiduous in their efforts to relieve the poorer and less fortunate of their citizens of this burden, in the avowed belief that this will spur them on to greater self-reliance and, ultimately, financial security. Once more, the doctrines of neoliberalism deem that the post war focus on alleviating poverty, as a right of citizenship, was misguided or even immoral as it trapped people in unfulfilling and meagre circumstances.

For historical reasons, associated with its founding ethos of individual self-reliance, the welfare safety net has been more piecemeal in the US than in the UK. Nonetheless, since the Reagan years there has been an assault on its state assistance programmes (Tirado 2014). In the UK, however, this has been even more keenly felt, as a more generous European welfare system has been systematically dismantled in a move towards US norms, with a significantly less empathic approach marked by often capricious and punitive sanctions, payment delays, accompanied by increases in homelessness, child poverty and the emergence of foodbanks as a growing emblem of the shifting attitude towards the poor and unemployed. This shift has been reinforced and legitimated by both a governmental and media campaign that stigmatises poverty and worklessness (Mackie 2019). Thus, in an environment of high cost and insecure housing and a threadbare safety net, the impetus to accept work on ever-onerous terms is greatly enhanced.

Against this background, in neoliberal societies what is emerging from this scenario is an ever smaller constituency of the increasingly wealthy surrounded by an expanding community of the relatively poor and disenfranchised, sandwiching a relatively comfortable but increasingly anxious middle class, aligning themselves with the successful while being in constant fear of falling into the abyss. Overall,

endemic insecurity of this nature generates a situation of uncertainty, where prior props of relative security have crumbled and can no longer be trusted.

Complexity

The climate of precarious change and inability to assess the outcome of events, in turn, contributes to further complexity where tried and tested means of both comprehending and responding to events no longer hold. Moreover, such a setting of flux and indeterminate outcomes present a significant cognitive and emotional burden, the implications of which are addressed in more detail below, for both institutions and individuals attempting to manage the exigencies of the present and to plan a way forward. For citizens in the major developed economies, confronted with the dissolution of the standard career and life trajectory that became the norm from the mid-20th century, there is a consistent struggle to get to grips with the myriad demands of sustaining a sense of security and stability on ever more precarious and shifting foundations (Bauman 2000; Standing 2011; Bone 2010). Compounding these conditions, the pace and degree of cultural change precipitated by not just by globalisation, but amplified by the increasing movement of peoples and new technologies, as well as the continuous tsunami of information facilitated by the latter, add to a scenario where an unremitting stream of information and novel experiences have to be managed on an ongoing basis (Brenner et al. 2010).

Ambiguity

Finally, ambiguity speaks to the lack of clear cut strategies for managing the demands and uncertainties of the present, given the sheer diversity of opinion and 'fact' to select from in an increasingly mediated society, exacerbated by an associated blurring of the boundaries between factual, evidence based accounts, opinion, conjecture and, to no small extent, mistruth. Moreover, this has arisen not only due to information overload but, arguably, has also have been influenced by the rise of a variety of fundamentalist discourses – economic, political as well as pseudo-scientific and religious – that trade in dogmatic interpretations of the world while resisting the correctives of

evidence and counter argument. Moreover, the radical scepticism and relativism that emerged in academic and wider intellectual circles associated with poststructuralism and postmodernism may also have undermined the intellectual legitimators of authoritative knowledge and practice (Gellner 1992). Thus, there has been a multidimensional assault and, as a consequence, a precipitous decline in the perceived authority of evidence, facts and expert knowledge, rendering sources of information more open to debate and, therefore, less dependable and reliable. Conflicting information from seemingly reliable sources is also widely in evidence. On this point, the decline in the reliability of information has also been reflected and compounded by a decline in the standards of political discourse, with the emergence of 'post-truth' politics where it appears increasingly legitimate for political actors to mislead and dissemble for political gain, abandoning longstanding expectations of reasonable public probity (Harsin 2018). All of these interrelated trends evidently have an impact on people's capacity to make sense of their circumstances, and to sustain a sense of trust and security, while clearly the manifestation of these conditions has been particularly prevalent in the debate, rhetoric and responses to COVID 19.

Overall, the interrelated trends described in relation to the VUCAworld can clearly be seen to resonate with earlier perspectives on the late modern era. As noted above, however, given that the magnitude and pace of the destabilising currents described above has now accelerated, and are gaining further impetus, it is asserted here that prior conceptual schema are less effective in grasping the essence of contemporary fugue and the experience of everyday life for many inhabitants of the present. Given this heady mix, the addition of a global pandemic, increasing geopolitical tensions and worldwide protests testify to the seriousness of the situation, which is undoubtedly more concerning than has been the case since the first half of the 20th century. Moreover, as noted, this paper attempts to offer a deeper explanation and understanding of the impact of such conditions by analysing them in relation to a complementary biosocial theoretical framework, which goes beyond current sociological understandings of the relationship between human beings and the environments in which they find themselves (Bone 2005, 2006, 2010, 2016).

VUCAworld and the Social Map

> Individuals need to feel secure in who they are, as identities or selves. Some, deep forms of uncertainty threaten this identity security. The reason is that agency requires a stable cognitive environment. Where an actor has no idea what to expect, she cannot systematically relate ends to means, and it becomes unclear how to pursue her ends… Individuals are therefore motivated to create cognitive and behavioral certainty, which they do by establishing routines (Mitzen 2006: 342).

The Social Map

For the purposes of this piece, only a brief overview of this thesis is possible, focusing on the salient points in relation to the issue at hand. However, the basic premise of the model asserts that, in relating to the world and each other, we must internalise and maintain a comprehensible ***map*** of our environment and a conception of our relationship to what we find there. In effect, all sentient creatures do this as a means of adaptation and survival (Goffman 1971; Poucet 1993; Epstein et al. 2017).

This process is integral to understanding the individual/society relationship, while legions of theorists have this type of adaptation to experience. Notably, albeit with some variation, both Elias and Bourdieu identified the development of *habitus*, as a *structuring* of our cognitive, emotional and, to no small extent, physical praxis to reflect a range of influences, from collective ideals and demands of societies as a whole, to more specific perspectives, habits and tendencies imposed by an individual's historical/structural location and social relations (Elias 1939; Bourdieu 1984). The Social Map is best understood as a biologically mediated reconceptualisation of the 'habitus' that shapes our perceptions, experience and action, comprising a complex internalised representation of what we believe the world and our place within it is like and also, significantly, how we feel it should be (Elias 1939; Bourdieu 1984).

This biosocial approach goes significantly further in addressing the way in which the internalisation and utilization of our models of the world might be understood. This, it is argued, is not the relatively open-ended process that many tabula rasa accounts of the human condition imply, and which have been embraced by many sociologists, but occurs in an organism with very considerable but nonetheless far from unlimited developmental flexibility, mirroring our self-evident physical limitations. For example, the human brain exhibits significant developmental plasticity across the lifespan, including epigenetic as well as synaptic adaptation to experience (Meloni 2014; Kanherkar et al. 2014**;** Meloni, Williams and Martin 2016; Bone 2005, 2010, 2016). In terms of epigenetics, DNA expression is modified by experience throughout the life course which, together with the synaptic plasticity, indicates that individual and environment, nature and nurture, are involved in a process of mutual constitution, undermining the more determinist accounts of the human/environment relationship that sociologists tend to disavow (Kanherkar et al. 2014).

Nonetheless, there are robust structural and functional attributes mediated by the *canalization* of development that ensure relatively consistency between genotype and phenotype, barring major developmental breeches (Waddington 1957; Bone 2016). Put simply, while our biology adapts significantly in response to experience there is less malleability in some respects than constructionist models might imply. If we were to talk of human nature it would be in the limited sense of observing the limitations and propensities imposed by our more robust morphological and functional consistencies (Bone 2016).

One important consequence of our neurological functioning, for example, is that while we can store huge volumes of information in long term memory, the limitations of our working memory, centrally involving the prefrontal cortex (PFC), greatly constrain our capacity to handle conscious thinking and high level tasks simultaneously (Miller 1956; Dunbar 1992; McElree 2001). Therefore, we have no option but to classify, memorize and routinize experience and practices, to accommodate and respond to the much of the myriad stimuli we routinely encounter with only peripheral or minimal conscious

attention. As argued elsewhere, this is central to understanding the foundations of social structure and modern rationalization processes while being crucial point with respect to the argument at hand (Bone 2010, 2016).

The drive to acquire the 'map' is an emotionally driven process that facilitates our survival, well-being and social interaction. Attention, levels of processing (repetition and conscious reflection), and emotional arousal all influence long term memory formation, allowing us to identify and recall the significant for future reference and relegate the commonplace to a low level of consciousness (LeDoux 1998; Cahill et al. 1996; Damasio 1994; Macrae et al. 2004; Bone 2005, 2010, 2016).

It might be noted at this point, that there has been extensive debate as to the role of the brain, body and environment as well as the role of internal representations with respect to human cognition, eliciting an amalgam of perspectives associated with what has been called '4e cognition' (embodied, embedded, enacted and extended cognition) (Williams 2018). This debate is extensive, with numerous perspectives being advanced, such that substantial engagement is beyond the scope of this piece. Nonetheless, in qualification, it is useful to indicate where the model presented here fits, or otherwise, in relation to key elements of this debate.

Firstly, as above, the model presented here assumes that emotion and cognition are intrinsically bound up with each other and also that brain and body reciprocally contribute to cognition and emotion, given that our bodily states are affected by brain function and vice versa. Bidirectional communication between brain and gut (microbiome) is also recognised (including the central involvement of the vagus nerve as a key communicative pathway) (Meloni 2014; Foster et al. 2017; Martin et al. 2018).

As well as being consistent with these key elements of *embodied* cognition, the model presented is also compatible with central aspects of *embedded* cognition and, in particular, the fact that mental representations (features of the *map*) are internalised and employed by individuals mainly as they relate to issues of subjective significance and, in particular, those which afford understanding and

adaptation, both environmental and social, rather than being internalised simply for their own sake (Williams 2018).

Similarly, arguments around ‘embodied niche cognition’ assuming that ‘(Th)e organism influences its own evolution, by being both the object of natural selection and the creator of the conditions of that selection’ (Levins and Lewontin 1985: 106 as cited in Laland et al. 2016: 195) are also compatible with the *social map* model, where the process of evolutionary co-construction has previously been broadly related to Elias’s concepts of pychogenesis and sociogenesis (Elias 1939; Bone 2016). Overall, the social map model is reconcilable at least with these more moderate claims of 4e cognition, and also with aspects of ‘predictive processing’ as it is assumed that subjectively significant representations are employed to anticipate sensory experience and revised in relation to that experience (Williams 2018).

Nonetheless, other propositions associated with the 4e approach appear, arguably, more contentious. For example, the notion that mind extends ‘beyond the brain’, consistent with the ’extended mind hypothesis’ (EMT), and that features of the external environment such as tools, objects and other people can be included in ‘mind’, as argued elsewhere, seems much less convincing as they tend to underplay the centrality of the reflective, intentional agent in social process and the distinction between our inner and outer worlds (Bone 2016; Goldinger et al. 2016).

This skepticism also applies to enactivist arguments that seem to extrapolate from observing that some well practised actions appear to arise very quickly and spontaneously to questioning the very notion of representations in the brain as the key and pivotal element of cognition and action (Goldinger et al. 2016; Williams. 2018). This, it is argued here, misrepresents the process of routinisation described above while also underplaying the role of internal representations in higher level processing (Goldinger et al. 2016; Kirchhoff 2011).

For the reasons outlined, internal representations and indeed, the pivotal role of the brain remain central to the social map model, while the ‘map’ term is also used advisedly, in that our internal representations are ‘engrained’ in long term memory with the central involvement of the

hippocampus, a structure also central to spatial orientation, and with emotional structures (principally the amygdala and associated areas) guiding attention, evaluating experience and stimulating responses while also facilitating long term memory formation (O'Keefe and Nadel 1978; LeDoux 1998; Arnsten 2009). The model proposes that the capacity to store a representation of the *physical* environment, while subjective and abstracted to a degree that might be, is an ability shared with other sentient animals, and provides a foundation from which human beings construct their rich inner semantic and episodic representations of their world and their place within it (Bone 2005, 2006, 2010, 2016). A range of empirical evidence appears to support the central assumptions of this model and, indeed, its extension to *mapping* the social (Tavares et al. 2015; Epstein et al. 2017).

As to the argument at hand, what is key is that our biologically mandated limitations in terms of dealing with novelty, complexity, ambiguity and concurrently presented stimuli via the process described may produce a profoundly negative emotional response when this limited tolerance is exceeded or where stimuli cannot be identified and handled effectively (Bone 2005, 2006, 2010, 2016). For our ancestors such a scenario could spell danger, while for modern humans these capacities are regularly tested simply by the complexities of modern urban living.

The above, of course, might be regarded as proposing a preference for life dominated by invariant routine, while a broad leaning in that direction has been observed (Giddens 1991). However, without encountering experiences of varying emotional intensity in relation to both our physical and social environments there would be insufficient differentiation to allow us make sense of these or to facilitate structured memory formation. Nonetheless, *control* here is key (Arnsten 2009). Experience we can readily accommodate to and perceive as being within our control confers security that we can enjoy stimulation within reasonably predictable and tolerable limits without being overwhelmed, while we can employ the resultant emotional arousal as described to delineate the contours of our world (Arnsten 2009; Bone 2010). Put simply, a balanced, comfortable emotional state relies on our experiences broadly meeting with our internalised expectations and values, that our internalised

worldview and sense of self is approved of and supported by others, that we have a sense of control over our circumstances, and that we also have sufficient but relatively manageable and predictable (controlled) stimulation to render life meaningful (Bone 2005, 2010).

Primalization

Applying this perspective to the wider societal issues addressed here, it is argued that it is contemporary societies' such as the US and UK's failure to broadly meet with these basic (biosocially mediated) needs for growing numbers of their citizenry that are at the root of the current growing, and widely observed, tide of angst, anger and irrational conduct being played out both privately and publicly, from personal mental health issues, rising crime and social problems, as well as an increasingly febrile and divisive politics (Bone 2010, 2016; Zaitchick 2016; Mishra 2017).

The neoliberal dismantling of the stabilising pillars of the post war settlement, and the ensuing generation of increasing inequality and insecurity, particularly when experienced in populous, complex, demanding, atomised, information *heavy* and highly competitive social environments, increases potential vulnerability to chronic activation and sensitisation of the amygdala and associated regions of the brain and nervous system, stimulating ongoing feelings of fear and anger (Bone 2010; LeDoux 1998; Rico et al. 2017; Arnsten 2009; Andolina and Borecca 2017). Adding to the psychological burden of this scenario, the pervasive ideological tropes of neoliberalism - of freedom, choice, autonomy, self reliance and meritocracy – entail that when people fail to achieve the internalised expectations shaped by neoliberalism's aspirational discourses this not only produces emotionally charged dissonance between expectation and experience, but is also regularly experienced as a personal failing rather than the outcome of structural conditions, compounding feelings of personal inadequacy and self reproach (Littler 2018; Bourdieu, 1984).

Moreover, critical to the argument at hand, exposure to such chronic uncontrolled stress, amygdala overstimulation generates neurological disfunction in the prefrontal cortex, impairing the capacity to

engage in focused, rational planning and conscious higher order thinking as well as the PFC's capacity to inhibit negative emotional arousal, potentially creating a vicious cycle (Anstern 2009).

> …stress impairs higher-order PFC abilities such as working memory and attention regulation. Thus, attention regulation switches from thoughtful 'top-down' control by the PFC that is based on what is most relevant to the task at hand to 'bottom-up' control by the sensory cortices, whereby the salience of the stimulus (for example, whether it is brightly coloured, loud or moving) captures our attention….Thus, during stress, orchestration of the brain's response patterns switches from slow, thoughtful PFC regulation to the reflexive and rapid emotional responses of the amygdala and related subcortical structures (Arnsten 2009:1).

The socio-behavioural application of this condition is what I have termed primalization, where the potential for neurological changes precipitated by 'VUCA' environments may elicit ongoing negative feelings and emotionally driven short-termist thinking and behaviour rather than measured reflective thought and action, as a condition that may become chronic over time (Arnsten 2009; Bone, 2010). It may be noted that the chronic stress generated by insecurity and inequality is also implicated in the negative perturbation of the gut/brain axis as well as epigenetic modifications, further contributing to the undermining of both physical and mental health and potentially compounding this process and its behavioural manifestations (Dowd and Renson 2018; Matosin, et al. 2017; Stringhini and Vineis 2018). Moreover, as below, growing epigenetic evidence suggests that such stress induced negative effects can be transmitted intergenerationally (Lacal and Ventura 2018).

> Parents' stressful experiences can influence an offspring's vulnerability to many pathological conditions, including psychopathologies, and their effects may even endure for several generations (Lacal and Ventura 2018: 1).

Populist Demagogues and Contemporary Unreason

Well observed private solutions to the above state of mental and emotional fugue, and associated physical symptoms, are evidently sought via a variety of sources from simple distractions to substance abuse, as well as various forms of therapy and self-help, as a burgeoning industry of the contemporary era. However, in terms of wider implications, this is also a condition that can be channelled, manipulated and amplified to have a more profound impact on the broader social sphere. Applied to issues concerning political stability, it is no accident that *primalization* can be seen to have provided fertile ground for the emergence of demagogic leaders, offering supporters a positive self-image, sense of belonging and direction, a simplistic, evidence free and (often anti-scientific) utopian imagined worldview and future, nostalgic visions of a recoverable past, as well as targets for the unleashing of pent up aggression (Bone 2010; Rico 2017; Mishra 2017). Again, the appeal to disillusioned and disaffected peoples is not hard to fathom, as the turbulent socio-economic landscapes of the past as well as the present have regularly been accompanied by individual and collective malaise and a range of cynical actors seeking to capitalize on these conditions. On this point, broad similarities between current political trends and those observed in the 1920s and 30s seem evident as does the fact that both of these scenarios coincided with periods dominated by unfettered capitalism and high levels of economic inequality, insecurity and crises (Hopkin 2020). In line with the argument here, this is no coincidence as the same biosocial factors are at play. With particular respect to the current era, when viewed from this perspective, neoliberal politicians' assertion that society is best served by unbridled competition, 'aspiration' and loose regulation appears fatefully misconceived, given that the arrangements imposed inevitably destabilize the social fabric as they fundamentally undermining the human needs, as described above, with a retrograde impact on the rational faculties and emotions of those most exposed to such conditions (Arnsten 2009).

One further aspect of the contemporary milieu that has rendered the reversal of these trends more urgent is the effects of social media in channelling and amplifying emotional discontent and the

associated negative discourses that prosper in these conditions. Of course, social media can offer a means of voicing and mobilising action in support of legitimate and worthy concerns, such as current issues around economic, racial and ethnic injustice and climate change, albeit that the processes described may be understood to contribute additional emotional energy to the most seemingly rational of causes. However, social media can evidently also ferment darker and less progressive discourses, particularly given the effects of online 'filter bubbles' for reinforcing opinion and prejudice and further stimulating already heightened passions (Pariser 2011). This has certainly been observed in the rise in populist politics, including the angry and conflictual contests around Brexit and the election of Donald Trump, and the burgeoning 'culture wars' that have arisen between a disconsolate and disaffected left and an increasingly strident right (Zaitchick 2016).

On this latter point, consistent with the current rising tide of right wing populism, one phenomenon that perhaps most starkly exemplified much of what has been argued above in terms of contemporary unreason and angry, prejudicial self-expression, was observed amongst the followers of the QAnon conspiracy theory allied to Trump. QAnon rapidly emerged as a contemporary cultlike collective, advanced via social media and built around a bizarre range of emotionally charged conspiracy theories, a central belief being that a satanic, paedophile and cannibalistic elite, including major luminaries from the US Democratic Party, ruled the world and were responsible for most of its multidimensional ills, including COVID 19, and directly endangering the world's children. The virtual deification of Donald Trump as a global saviour from this 'deep state cabal' was also central to the bizarre QAnon credo, hence the group's prevalence at Trump rallies and other right wing rallying points, culminating with their involvement in the storming of Capitol Hill, while adherents were also visible at anti-lockdown protests in the UK (Quinn 2020). The latter also brought together a range of broadly aligned groupings, includes so called anti-vaxxers, some presenting COVID 19 as a conspiracy against the public to exert elite control and others believing that the pandemic had been caused by radiation from 5G mobile phone masts. It is noticeable that QAnon followers appeared to be drawn from the same pool of the disenfranchised and disenchanted who have rallied to xenophobic and right

wing nationalist agendas and discourses, in a collective dominated by prejudice and suspicion of 'others' and a lionisation of regressive ethno-nationalist discourses. In line with the above, I would argue that it is perhaps no surprise that this anti-rational phenomenon appeared mainly prevalent in the nations that have been most associated with the excesses and socio-economically destabilising consequences of the neoliberal project since the late 1970s. While the QAnon movement appeared to fade from view with the ending of the Trump presidency, both its adherents and the conditions that generated the phenomenon remain and will potentially re-emerge given a suitable cause.

Conclusion

The above represents a substantial departure from mainstream sociological approaches to understanding the implications of neoliberalism, specifically in terms of the application of a contemporary biosocial approach to the analysis of social phenomena. However, this is in line with my own long held assertion that mainstream sociology's adherence to mainly philosophical and, on occasion, psychoanalytic informed theorising has now been surpassed by the knowledge of the human condition made available by advances in neuroscience and now epigenetics over the last few decades (Bone 2005, 2010, 2016; Meloni, Williams and Martin 2016). Thus, I would argue, that sociology, with a few exceptions, will remain behind the curve and be subject to less well founded and potentially erroneous conclusions if it remains wedded to its broad ant-biological stance (Benton 1984; Bone 2005, 2016; Meloni, Williams and Martin 2016). With respect to the specific argument set out above, this is both an attempt to reappraise the current direction of social theorising, further illuminating some of the most important social issues arising in the current era while illustrating the utility of this type of approach. This is advanced from the perspective that, if by adhering to longstanding disciplinary prescriptions we fail to understand the broader picture, its complex and deep causal factors, then we risk failing to fully comprehend how and why current trends have emerged and may proliferate in a post-pandemic world where further faltering economies, potential application of austerity, together with the increasing impact of automation on job security, further exacerbate the

trends described above. This is a scenario that may place us in danger of disinterring past nightmares and where reason, justice and civility may be increasingly overshadowed and marginalized by angry, irrational voices. Moreover, the possibility for such negative effects to influence the constitution of succeeding generations clearly places additional significance on these processes. Overall, given the above, the case for fresh understanding and well informed advocacy for the delivery of a new social contract that puts well-being and peace before profit, reason before ignorance, community before individual licence, and societal security and justice before the short term expediency of the powerful, has perhaps never been more urgent.

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