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"Quantifying, Economising, and Marketising: Democratising the social sphere?"[1]

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Abstract

In recent decades, there has been an avalanche of numbers in public life, one that matches that which occurred in the first half of the nineteenth century. The difference today is that many of the numbers that are now so central to political rule pertain to performance, and depend on a felicitous interlocking of quantifying, economising, and marketising. The calculated management of life is at a critical juncture, and it is essential that we consider carefully how this is affecting who we are, what we have become, and who we wish to be. Only a few decades ago, this bandwagon seemed limited or at least focused in its reach, yet it now appears as if no domain of human endeavour can escape. We argue that it is important to differentiate quantifying, economising, and marketising, so as to counter the often phobic response to the unrelenting march of numbers in modern political rule. We call for greater attention to the role of accounting numbers, for accounting numbers go beyond the abstract models of economics and allow a form of action on the actions of others that economics does not. We argue also for greater attention to the conditionality of the performativity of quantification, so that we can identify the conditions under which numbers produce effects, and the varying nature and extent of those effects. Finally, we consider the thorny issue of "democratising" the social sphere, and note that it is only recently that quantification has been largely annexed by the phenomenon dubbed neoliberalism.

Keywords: quantifying; economising; marketising; democratising; performativity; accounting; neoliberalism; subjectifying

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On 24 April 2007, the *Daily Telegraph* published Dr Foster's *Good Hospital Guide*. The article summarising the results was titled "Lottery of death rates in hospitals". It came as a surprise to the Mid Staffordshire Hospital Trust that its Hospital Standardised Mortality Ratio was 127, as opposed to 114 which it had been led to expect, and that it was ranked the fourth worst performing trust in the country on this metric. The Trust was also shown to be the fourth worst performing trust in the country over a three-year period, with a score of 125. Much debate ensued in the media, in learned journals, within the hospital itself, between the hospital and its regulators, and with the provider of the data. This focused on the robustness of the results, the intricacies of the HSMR methodology, issues of coding, and the possible link between poor results and patient care. Notwithstanding these debates, mortality rates figured prominently in the various investigations concerning Mid Staffordshire Hospital Trust, and merited an entire chapter in the almost 1800-page Report of the Public Inquiry that was published in February 2013.

On Sunday 1 April 1990, a riot broke out at Strangeways prison in Manchester. Two people died and hundreds were injured during the ensuing 25-day protest against the Victorian jail's squalid conditions and overcrowding. Riots broke out at other prisons over the following weekend. On 6 April 1990, the then Home Secretary appointed Lord Justice Woolf to head an Inquiry into the disturbances and to consider the wider implications for the prison system. Ten months later the Woolf Report was produced, a 600-page document called the most significant analysis of the penal system in a hundred years. That report recommended the introduction of a set of Accredited Standards regarding the physical conditions in which prisoners are to be held as well as the activities and support available. One of its twelve key recommendations pertained to overcrowding, and stipulated that no establishment should hold more prisoners than is allowed for in its 'certified normal level of accommodation'. Three years later, a new Director General of the Prison Service was appointed, who had previously been the Chief Executive of Granada Television and a Controller at the Ford Motor Company. In the same year, a standardised system of performance measurement was introduced into the Prison Service. By 1995, the number of prison key performance indicators (KPIs) had rapidly increased.

The powers of quantification

If the state has been viewed as the "coldest of all cold monsters", then quantification in all its various forms comes a close second for some. Yet a phobic response to the unrelenting march of numbers in modern political rule will blunt our capacity for analysis and critique, just as surely as denouncing the evils of capitalism, mass society, or globalisation (Gordon, 2014; Rose, 1991). It is important to differentiate the various types of numbers at play in contemporary democratic societies, the differential uses to which they may be put, and the differential implications for their putative democratising of the social sphere. To take just the two examples above, in the first case numbers produced by a commercial organisation give rise to or fuel a major public controversy concerning care quality, and the extent to which mortality statistics in all their various permutations may highlight poor care. In the second case, a public scandal gives rise to a call for standards and numbers, in order to balance the requirements of security, control, and justice. There are many more modalities of

quantification, particularly when economization and marketization enter the picture. It is this variation that needs attention if we are to inventorise our present in terms of the linkage between modes of being and modes of governing public spaces. There is little point in considering quantification separately from the objects and subjects to be governed through such means.

Quantification, of course, is not new. Charles Babbage's call in 1832 for a list of all the facts that could be expressed as numbers exemplifies the "avalanche of numbers" (Hacking, 1990) that occurred between 1820 and 1840. We may smile today at his proposed list, which included not only atomic weights, specific heats, but also the number of feet of oak a man can saw in an hour, the volume of air needed to keep a person alive for an hour, the relative weights of the bones of various species, and so on. Almost two centuries earlier, the Colbert era exhibits an earlier attempt to govern a nation by numbers and information (Miller, 1990). But something has happened across the past three decades or so which has changed the role of numbers in modes of governing. We no longer inhabit Babbage's world with its dream of ascertaining "the constants of nature and art". Numbers, and particularly those that can be expressed in economic or financial terms, have come to be endowed with a form of truth that has the authority to guide or govern us, to shape and influence who we are, or who we should try to become. This is even more so when such numbers are vested with the often meretricious authority of markets. It is the felicitous yet variable interlocking of quantifying, economising, and marketising that we need to be attentive to if we are to identify the individuality of our present.

The range and diversity of the numbers surrounding us can astound even those familiar with the phenomenon. Only a few decades ago, this quantifying bandwagon seemed limited or at least focused in its reach, yet it now appears as if no domain of human endeavour can escape. Mortality statistics and performance data for prisons are just two examples of a vast new territory that has been opened up for and by quantification. Once opened up, the numbers proliferate, chains of calculations form, and things become ever more complex. As Robert Musil so aptly put it, the experts never get to the end of anything (Musil, 1979, Vol. 1, p. 254). For the dipsomaniac whose tipple is numbers, only more numbers will suffice.

Some might think, for instance, that mortality statistics for hospitals would be simply about the number of people that die in hospital. But things are never that simple when the quantifiers get their hands on something. The Hospital Standardised Mortality Ratio (HSMR) is a method of seeking to establish whether hospital mortality is higher or lower than expected. It compares the levels of deaths of patients in hospitals in different years, or between different groups of patients/ailments in the same year. To allow comparisons between different hospitals, the method of calculating HSMR takes account of differences in case mix, and makes adjustments for variables that are not directly related to the quality of treatment and care provided in a particular hospital. The variables for which adjustments are made include: age, ethnicity, admission source and type, level of deprivation, period of admission, and co-morbidity. HSMR are also calculated by reference to the 56 diagnostic groups which between them are said to account for 80% of all hospital deaths. Currently, the figures are also adjusted according to whether or not palliative care was provided. The HSMR is calculated by dividing the number of deaths that actually occurred by the number of expected deaths, multiplied by 100. The national mortality baseline is therefore 100. If the

mortality levels are higher than expected, the result will be more than 100; if less than expected, it will be less than 100.[3]

The same holds for performance figures for prisons. In 1990, at the time of the riots mentioned above, there were virtually no numbers that could be appealed to as a way of demonstrating the relative performance of individual prisons. Today, and in the wake of a partial privatisation of the UK penal system, there are more than a dozen. Currently, and in addition to data on overcrowding, these include: public protection measures (measured for example in number of prisoner escapes), Offending Behaviour Programme (OBP) completions, OBP starts, number of completed drug rehabilitation programmes, drug testing results, self-harm audits, assault data, data on employment and accommodation of prisoners upon release, hours of work in prison industry, staff sickness, race equality data, and costs per prisoner place.[4] They also contain measures of prisoner experience aimed at capturing the "quality of prison life" (Liebling, 2004). These measures are based on a questionnaire survey of prisoners' perceptions to gauge "the quality of the social culture and other aspects of prison life" that are difficult to define and measure by other means.[5] Such data is collected from the prisoners to capture in a systematic, comparable manner information about the quality of the relationships prisoners form, and levels of professionalism, safety and security as perceived by them.

This avalanche of numbers pertaining to performance across the past three decades or so is often justified in terms of consumer choice, as if the choice of a restaurant, a school, or a residential care home were somehow equivalent.[6] Today, the avalanche is more or less immediate, with internet feedback and social media providing almost real-time assessments, regardless of their accuracy. But even when the language of choice encounters fundamental limits, as in the case of prisons, or is attenuated as in the case of residential care homes, rankings and ratings are still called upon to allow performance to be assessed. The language of markets here justifies comparisons between private prisons and those owned and managed by the government. Since 2003, prisons in England and Wales have been rated on a scale from 1 to 4, where 4 stands for exceptional performance and 1 indicates that overall performance is of serious concern. Although originally developed with input from management consultants (Mennicken, 2013), the current prison rating system, which was introduced in 2009, is a joint product of the Cambridge University Prisons Research Centre, the Criminal Justice Group (CJG) of the Ministry of Justice, and the National Offender Management Service (NOMS). The rating system is based on a plethora of different measures aimed at reflecting performance in: Public Protection, Reducing Reoffending, Decency, and Resource Management and Operational Effectiveness.[7] The measures are added up following an elaborate weighting system that accounts for differential prison types and seeks to balance conflicting prison objectives, such as those of security, rehabilitation, efficiency, economy and decency.

[3] HC898-1, Mid-staffs Frances Report, Vol. I, p.416, paras 5.20 and 5.22.

[4] See for example the 2014-15 specifications of the prison rating system (PRS) and PRS dataset. (https://www.gov.uk/government/statistics/prison-and-probation-performance-statistics-2014-to-2015, accessed 11 May 2016).

[5] See for instance the 2014-15 PRS specifications.

[6] See http://www.nhs.uk/Service-Search/Care-homes-and-care-at-home/LocationSearch/11, accessed 15 May 2016.

[7] See the 2014-15 PRS specifications.

Aimed at exacting responsibility and following ideals of total, finely calibrated control, this system does not, however, encompass all dimensions of quantified prison performance. The reduction of re-offending constitutes for example a performance objective that challenges organisational accounting entity assumptions, not least because of the frequent movement of prisoners between prisons, which makes it very difficult to attribute re-offending rates to the performance of individual prison entities. Other measures are deliberately excluded from the rating system, such as data about self-inflicted deaths or complaints. Such data is collected, but not used in the calculation of overall prison performance.

Further, we ought to pay attention to the varying degrees of malleability of numbers. Whereas the counting of prisoner escapes is one of the least controversial of all the numbers gathered about prisons (at least at the measurement level), the situation is very different in the case of hospital mortality ratios (see the debates around HSMR methodology referred to above) and the measurement of prison overcrowding. For instance, the Prison Service in England and Wales distinguishes between Certified Normal Accommodation (CNA, defining how many persons prisons *should* be expected to hold) and Operational Capacity (Op Cap, defining how many persons prisons *can* hold, in principle safely and decently) (Bastow, 2013). Both measures are highly malleable and controversial. At what point does overcrowding start, or "crowding" as it is now euphemistically termed? What is "normal" capacity (ibid., Ch. 4)? Definitions of what counts as "too crowded" or "not crowded" have shifted over time, and particularly changes in Op Cap definitions were used by the government as a basis for rationalizing and justifying stretch in capacity of the system, which has given rise to much debate (ibid.). Quantification can also be less visible, as is the case with the complex economic models and cost calculations that drive resource allocations and rationing for healthcare, social care, education, the penal sector, and much more besides. This diversity in modalities of quantification is lost when it is cast uniformly in dystopian or at least gloomy terms, even if there is good reason in many cases to be gloomy (see e.g. Brown, 2015; Supiot, 2015).

And then there is the matter of amnesia. We need to remember that it is not only those reforms dubbed neoliberal that have called for greater accountability and transparency. In the 1960s and 1970s, calls for greater accountability and voice came equally from civil libertarians, feminists, radicals, socialists and others (Rose and Miller, 1992, p. 201). Put more generally, instruments of quantification are also integral to how democracy is justified and operationalized as a particular set of mechanisms of rule (Desrosières, 1998; Porter, 1995; Rose, 1991). At least some of the devices that increasingly seek to quantify performance in contemporary societies had a "democratising" ambition at their inception, an aspiration to hold managers, public administrators, and civil servants to account, so as to counteract nepotism and arbitrariness. And, as Mary Morgan has pointed out, we should not ignore the continuing importance of the voicing of the facts of experience, derived from the rights of citizens to use their own experience to argue about things that matter to them or those close to them (Morgan, 2010). The active citizen, free to choose and equipped with mechanisms to enable such choices, may appear today to be coterminous with neoliberalism, but that apparent coterminosity is a very recent invention. We argue here that it is our job to analyse such developments, so that we may get to grips better with a phenomenon that has embedded itself at the heart of contemporary political culture. With this in mind, we offer a set of propositions which we hope will inspire debate, even if some of that debate is discomforting.

Quantifying, economising and marketising

Our core argument is that it is important to differentiate quantifying, economising, and marketising, so as to better understand what is taking place and why. Why should we bother with this differentiation? Are we just splitting hairs, since neoliberalism manages to link or fuse these three components into an apparently harmonious whole? We think not, but we owe it to the reader to offer a brief explanation.

Quantification should be the easiest of the triptych to define, for it is, at first sight, a matter simply of numbers (counting and measuring): the number of births, the number of deaths, the number of suicides, the number of burglaries committed, the number of migrants, the number of unemployed, the number of prisoners reoffending, even the numbers Babbage called for, such as the frequency of occurrence of the various letters of the alphabet in different languages! But the apparent simplicity of numbers is misleading. For it is not just numbers that matter, it is numbers that are accorded objectivity, something that Daston and Galison (2007) date as having occurred in the middle of the nineteenth century. What matters is that moment when objectivity is attached to numbers, and when that objectivity becomes ubiquitous and irresistible. What matters is that moment when numbers oust judgment, or at least marginalise it or limit its operation to specific domains, even if the rivalry persists in some domains a century and a half later. As the physicist Lord Kelvin put it at the end of the nineteenth century, "when you can measure what you are speaking about, you know something about it; when you cannot measure it…your knowledge is of a meagre and unsatisfactory kind" (quoted in Hacking, 1991, p. 186). It is this fusion of numbers and objectivity that matters, something that has been with us for over a century and a half, and which has been fundamental to state-building and the administration of territories (Porter, 1995). Quantification involves a transformation of quality into quantity, of subjective experience into objectified knowledge. In so doing, it prepares the ground for new possibilities of governing. But we need to be careful to separate quantification from economisation, for not all quantification implies economisation. Consider, for example, opinion polls, medical statistics, the quantitative study of crimes, surveys of patient and prisoner experience, and much else besides.

Economising has its own history. Like numbers, which one can trace back as far in time as one likes, economising can be found in the distant mists of time if one wishes to search for it there. But here again we counsel against taking economising as self-evident and constant over time. By economising, we mean the ideas and instruments through which individuals, activities, organizations, nation states, regions, projects, and much else besides are constituted as economic actors and entities (Miller and Power, 2013), a definition that has much in common with the definition proposed by Michel Callon and his colleagues (see e.g. Çalışkan and Callon, 2009; but see also Muniesa, 2014). But we mean more than just the formatting of the economy by economics, and related disciplines. And we mean more than just the discursive process of constituting the economy as a terrain distinct from the polity, even though that longer process is a necessary prerequisite for more recent developments. Our concern here is more specific, it is with the links between economising and governing, the governing of souls, children and households, of doctors, prison managers and teachers, social workers and the retired. Economising is of interest not just because it is performative, but because it is tied to particular modes of governing, particular modes of being.

Economising in this sense has many components. It implies a concern with the idea of efficiency – governing aimed at enhancing individual or collective performance, the

reduction of wastefulness, and the imposition of rationing through calculation. Economising is further about making comparable things that are not yet comparable (such as universities, schools, or restaurants) by distilling different things (labour, knowledge, materials) into a single *financial* figure (take the example of cost-benefit analyses, value for money, return on investment as well as net present value calculations). Economising in financial terms makes comparable activities and processes whose physical characteristics may bear no resemblance whatsoever, and in so doing allows notions of competition and benchmarking to gain traction. If the return on investment of a particular investment is above the hurdle rate (say 20%), one need not in principle even bother to ask what the investment is. The same holds for an investment with a positive net present value.

Accounting has a special role to play here. For accounting goes beyond the abstract models of economics. It represents a particular variant of economisation that has received insufficient attention outside the discipline of accounting. Accounting is able to interfere, to act on the actions of teachers, social workers, doctors and many others in a way that economics is not, through performance measurement, return on investment calculations, standard costing, value for money calculations, and the like. Economising in this sense emerged in the early twentieth century, long after the advent of quantifying, and even half a century after quantifying came to be linked to the notion of objectivity. Economising as a mode of governing, as a mode of acting on the actions of managers and workers, began with the advent of standard costing and related normalising and standardising programmes. It has gone through various mutations since, as particular calculative devices have been attached to particular programmes or rationalities of governing.

To illustrate from our present, we have to go beyond the two examples we cited at the outset. For instance, the publishing of the National Reference Cost Index for NHS hospitals was held out as a way of making different hospitals comparable, something that had long been claimed to be impossible due to hospitals all being different because of their different casemix. With this step, hospital managers, and even the managers of particular departments or specialisms within hospitals could be governed in terms of their relative efficiency. To remain with this example, “Reference Costs”, a particular form of standard costs, were initially introduced as a way of benchmarking the cost of individual medical treatments, so as to drive down unit costs and, ironically, the bureaucratic cost of internal markets. But they soon came to be hitched up to a volume driven resource allocation mechanism through which hospitals are reimbursed at national average cost (The Department of Health, 1997). Economising in this sense not only formats the hospital as an economic entity, it also provides a visibility and a means of governing the key actors within individual hospitals.

Marketising is altogether different, even if it can be found at times comfortably co-existing alongside economising. As others have argued, it can be regarded as a specific form of economising, yet we need to be clear that one can economise a domain without marketising it (take the example of Soviet economic planning). Installing elaborate cost models and cost allocations so as to instantiate the idea of efficiency at the heart of hospital care, and using those models to allocate resources, has little to do with marketising, even if the idea of competition lurks in the background. Once again, our interest in marketising is in terms of modes of governing, and the injunction to not govern too much – “to coordinate social activity without [much, added] intervention by political authorities or ‘conscious’ cooperation by actors themselves” (Davies, 2014, p. 2). This applies of course to the existing economic terrain, and the incessant pressure to instantiate competition while supporting the market through a set of state interventions. But our concern here is particularly to do with the still

growing attempts to extend the rationality of the market to domains previously viewed as non-market and non-economic, and the transformation, as Foucault put it, "from a market supervised by the state to a state under the supervision of the market" (Foucault, 2008, p. 116). Perhaps one of the clearest examples of this is the attempt to embed corporate bankruptcy regimes in the UK hospital sector, on the grounds that one cannot properly marketise a domain without putting in place relatively orderly mechanisms for exit.

Why does it matter to differentiate quantifying, economising, and marketising? It matters because of the need to counter the phobia of modes of governing, and the debilitating effects of such phobias for analysis and critique. It matters because we need to understand how modes of governing operate. For three decades or so, we have lived in a world where injunctions to citizens to observe the realities and disciplines of the market, and invocations to think of oneself as an enterprising self, have achieved a sort of pedagogical ascendancy. Yet much of what happens under the guise of the so-called new public management reforms has more in common with a centralised command and control resource allocation mechanism driven by considerations of volume and efficiency rather than the logic of markets and the category of the entrepreneurial self. Likewise with the prison ratings referred to above, which are composed of a multiplicity of different chains of calculations and underlying sets of calculative expertise, ranging from actuarial and quasi-actuarial methods in offender risk assessments, techniques of standard costing in cost per prisoner place calculations, to a questionnaire for prisoners which has been developed inductively based on the principles of Appreciative Inquiry. We need to disentangle such multiplicities, rather than assume equivalence when it is absent. Equally, we need to be attentive to when numbers are taken notice of, and when they are conveniently ignored. For instance, the "certified normal level of accommodation" figures for prisons may be ignored in the interests of cramming more prisoners into already overcrowded prisons. Likewise with the mortality figures at the Mid Staffordshire hospital, at least initially. At times, one wishes that quantification would be more performative than it seems to be.

Quantifying, mediating and democratising

Calls for greater accountability and transparency through quantification have today been largely annexed by the phenomenon dubbed neoliberalism. But, as already noted, not long ago such calls were the battle cry for socialists, feminists, libertarians and others. As Hacking reminds us, statistical data have a certain superficial neutrality between ideologies, and no one used the facts collected by the factory inspectors more vigorously than Marx (Hacking, 1991, p. 184). Enthusiasm for figures is not only rooted in the promises they hold for economic rationalization. Equally important are the dreams and schemes of alternative forms of governing, of doing things differently with numbers. What implications does this have for our interest in the democratising of the social sphere?

It is important not to start from a presumption that quantification is necessarily evil in and of itself, even if it may be intrinsically dangerous (Foucault, 1983).[8] Indeed, it is the very "coldness" of numbers, their apparent objectivity, which is so cherished by those that trumpet their virtues. For it is this quality that allegedly allows rational assessments to be made in

[8] The allusion here is to a remark of Foucault's (1983, pp. 231-2): "My point is not that everything is bad, but that everything is dangerous, which is not exactly the same as bad. If everything is dangerous, then we always have something to do. So my position leads not to apathy but to a hyper- and pessimistic activism … the ethico-political choice we have to make … is to determine which is the main danger."

situations previously dominated by emotion, whim, or subjective judgment. It is this quality that supposedly allows the most sensitive and apparently intractable issues to be placed beyond the fray of politics. Numbers promise a "de-politicisation" of politics (Rose, 1991). They give legitimacy to political power in democracies by producing a public rhetoric of disinterest in situations of contestation (ibid.). In ways that echo Hirschman's (1997 [1977]) analysis of the victory of the idea of interests over that of passions several centuries earlier, a particular class and usage of numbers has been called upon to play a civilising role in contemporary democratic polities. We need to explore how the "coldness" of numbers has achieved such a victory in modern government, and with what implications. In this context, we also need to learn more about the roles that seemingly mundane and apolitical quantification instruments of rating, ranking and performance measurement play in the organisation of value conflict and value plurality. In the correctional services, for example, psychological expertise might still be valuable but mediated by actuarial and quasi-actuarial methods of identifying the dangerous (Simon, 2005). The prison ratings discussed above may offer "standardised ways of constructing proxies for uncertain and elusive qualities" (Espeland and Stevens, 1998). Yet, abstract values, such as those of a prisoner's dignity and decency, are themselves transformed by the conventions of quantification applied to them. And it is for us to examine such processes of value reconfiguration and scrutinise the extent to which quantification can play the role of a "mediating instrument" (Miller and O'Leary, 2007) where conflicting values are at stake.

Also, we ought to be mindful about the conditions under which numbers may become "hot" again and re-politicised. For numbers can also aid social mobilisation and critical debate, even if that might appear a distant aspiration in our present. The legibility and accessibility of quantitative data about the performances of states, including mortality statistics, cancer survival rates, and other performance data collected in hospitals and prisons, may enable watchful vigilance from underneath. Yet, at the same time, what is "behind" the data, how the numbers have been produced, is often invisible, so citizens are left conjecturing what has been omitted and why. Quantification changes possibilities for democratic participation and political engagement. Assessing and critiquing government through numbers, including the quality of public services such as healthcare or the correctional services, requires a reasonable level of numerical literacy. In this context, it is important to understand what forms of political activism have formed in and around quantification. What forms of "counter-conduct", in the sense of struggle against the procedures implemented for conducting others (Foucault, 2008), do we find with and around numbers?

In the UK, for example, the Radical Statistics Group, usually abbreviated to Radstats, was formed in 1975 as part of the radical science movement "to create awareness of the actual and potential misuse of statistics within and outside government."[9] The group still exists today seeking to "explore changing features of contemporary economy, society and politics, inasmuch as they relate to statistics and data." [10] The group put together "an unofficial guide" to official health statistics which seeks to provide a comprehensive reference source describing the statistics which are currently publicly available in the UK, including mortality statistics, the strengths and weaknesses of these data sets and the history and politics that have produced them.[11] The Radstats group is committed "to helping build a more free, democratic and egalitarian society" and issued "Statistics for Radical Change", a practical handbook for political and community activists that highlights "the various ways that

[9] See www.radstats.org.uk, accessed 17 June 2016.
[10] See http://www.radstats.org.uk/activity/rs2020/, accessed 17 June 2016.
[11] See http://www.radstats.org.uk/no075/tunstall.htm, accessed 17 June 2016.

activists can employ data in campaigning, community organising and developing an alternative political framework."[12] The Radstats Group and other activists (see here also the French works on Statactivsme by Bruno et al., 2014) use numbers as a means of public denunciation and criticism. Such activism goes beyond the purely negative act of disobedience or resistance. It is productive as it seeks to develop new ways of governing by numbers, for example by mapping out spaces for dialogic procedures, promoting new forms of subjectivity and collectivity, and challenging posited relationships between fact and value.

Further, we need to attend to the conditionality of the performativity of quantification. Judith Butler reminds us that there are strong and weak forms of performativity (Butler, 2010). Drawing on Austin, she distinguishes (analytically) between devices that work more or less by themselves and that alter or make up the world ("produce ontological effects" as she puts it), and perlocutions that require other conditions, including even good luck (a felicitous set of circumstances), to have effects. She also points out that most of the performative action in the economic sphere belongs to the latter set. Likewise with quantification more generally. Hospital mortality ratios or prison performance ratings, although central to the defining of organisational success or failure, do not work all by themselves, but require other discursive and non-discursive conditions. The types of effects they produce are variable, and not in a binary sense but along a continuum. These effects may take the form of relatively minor adjustments to existing ways of doing things, which in the end have little impact on the world. They may take the form of large-scale reconstructions of domains, entities and persons. And they may take a wide variety of different forms in between. Such changes may happen relatively quickly, across a matter of only years, or they may be slow, with much stopping and starting, as was the case with the creation of relatively stable bankruptcy legislation in the US and the UK, which took virtually the whole of the nineteenth century (Kurunmäki and Miller, 2013). Their tempo and extent may vary considerably between domains, as the calculative infrastructures of quantification come into contact with existing infrastructures and professional enclosures. And, of course, these processes will vary between countries, as ideas and instruments travel. As many have remarked, we live in a world made up of assemblages (Deleuze and Guattari, 1987; Deleuze and Parnet, 2002). The unity of such assemblages derives only from the co-functioning of their components; the relations that are formed among them (Deleuze and Parnet, 2002, p. 69). The instruments that enable and enact quantifying, marketising, economising and democratising are always already part of such assemblages, multiplicities made up of many heterogeneous aspirations, alliances and artefacts. It is our job to analyse how such assemblages have been formed and out of what components, and how particular instruments of quantification link up and mediate between domains (or not) and with what effect.

Quantifying and subjectifying

Finally, to get to grips with the power of numbers it is crucial to attend to the relations between quantifying and subjectifying (Foucault, 2001 [1982]; Mennicken and Miller, 2014; Miller and Power, 2013). Accounting measures, including prison and hospital performance ratings, quantifications of decency, mortality statistics and other performance measures, alter the power relations that they shape and are embedded within. They influence the capacities of agents, organisations and the connections among them, and they can enable new ways of

[12] See http://www.radstats.org.uk/activity/src/, accessed 17 June 2016.

acting upon and influencing the actions of individuals. We need to be mindful of how instruments of quantification shape and challenge the subjectivities and capacities of public service providers and users, and related understandings of personhood and citizenship. Put differently, we need to direct attention at how public sector performance measures and the classifications contained in them interact with the people classified (Hacking, 2002), how they change the ways in which public administrators, on the one hand, and prisoners, patients and other public service users on the other hand, are understood, governed, and see themselves. In this context, we ought also to attend to the subjectification of collectivities, and the creation of new collectivities through quantification. How are numbers involved in the organisation of new collectivities, for example the establishment of prison interest groups or patient interest groups? What roles do numbers play in the formation of new collective identities, for example amongst prisoners or patients (as consumers or active citizens)? What roles does quantification play, or might it play, in the articulation of collective protest and critique?

We need to distinguish between different modes of subjectifying and disentangle the differential effects of quantification, economising and marketising on subjectivity, personhood and the possibilities for collective subjects to emerge. Quantification, linked up with ideas of economizing, is aimed at producing calculating selves who think and act in terms of efficiency, utility calculations, the maximisation of returns, in short, the remaking of everything and everyone in the image of "homo oeconomicus" (see also Brown, 2015). Quantifying linked up with ideas of marketising seeks to reconstitute subjectivity in terms of choice, competition and competitiveness (see also Davies, 2014). Citizens, patients, prisoners, and other public service users are turned into consumers, who are to be satisfied (see here also the rise of patient and prisoner experience surveys in the NHS and Prison Service, respectively). In both cases the calculating selves are enmeshed in networks of calculation as both objects and as active participants (Miller, 1992, p. 75). The performance of calculating selves – prisoners, prison officers, prison governors, patients, doctors and nurses – may be evaluated by others without their knowledge, or against their wishes. Prisoners and prison governors may seek to influence prison ratings in their favour, hospital managers may be encouraged to tamper with mortality ratios. On the other hand, quantification can be turned against programmes of economisation and marketisation (see for instance the activities of the Radical Statistics Group). This happens when ruling mechanisms of quantification and programmes of governing (for example governing in the name of the market or efficiency) are subjected to scrutiny, debate and critique, when forms of disruption are sought that go beyond "gaming the numbers", when numbers become attached to dreams and schemes of doing things differently. Such dreams and schemes may be able to produce new forms of subjectivity and collectivity, thereby instilling possibilities for critical reflexivity into the quantification machine.

Conclusion

The above is necessarily preliminary, and we have only been able to allude here and there to examples. It may help to summarise our key points. First, we have argued for the plurality of forms of quantification, calling for increased attentiveness to the differences between quantification, economisation, and marketisation. Second, we have touched on the thorny issue of "democratising" the social sphere, discussing the relations between quantification, mediating and democratising. We stressed the ambivalent (politicising and de-politicising)

roles of quantification in contemporary democracies and emphasised the need to follow the numbers across different sites of production and circulation. We underlined the importance of investigating interactions between different quantification regimes and scrutinising the interrelations that need to be formed among ideas and instruments if they are to co-function within a particular assemblage, and the tracking of the emergence of such assemblages. Third, and finally, we attended to the relations between quantifying and subjectifying, how quantifying in all its various forms can alter the possibilities for personhood as well as the possibilities for collective subjects to emerge.

For those interested in the powers of quantification in all its forms, the challenge now is to get to grips with at least some of these questions, without theoretical short-cuts that hinder our ability to analyse and chart empirically such powers. We need to better understand who we are, what we have become, and who we wish to be. For quantification, economisation, and marketisation are ultimately about our selves. The calculated management of life that Foucault and others have done so much to highlight appears today to be at a critical juncture, where even the most utopian and apparently benign projects can quickly become dystopias. The quantification machine is not only up and running, but seems to be accelerating at an alarming rate, and it is essential that we consider the uses to which it is to be put.

References

Bastow, S., 2013. Governance, Performance, and Capacity Stress: The Chronic Case of Prison Crowding. Palgrave Macmillan, Basingstoke.
Brown, W., 2015. Undoing the Demos. Zone Books, New York.
Bruno, I., Didier, E., Prévieux, J., 2014. Statactivisme: Comment lutter avec les nombres. Zones, Paris.
Butler, J., 2010. Permformative Agency. Journal of Cultural Economy 3, 147-161.
Çalışkan, K., Callon, M., 2009. Economization, part 1: Shifting Attention from the Economy Towards Processes of Economization. Economy and Society 38, 369–398.
Daston, L., Galison, P., 2007. Objectivity. MIT Press, Cambridge, Mass.
Davies, W., 2014. The Limits of Neoliberalism: Authority, Sovereignty and the Logic of Competition. Sage.
Deleuze, G., Guattari, F., 1987. A Thousand Plateaus. Univeristy of Minnesota Press, Minneapolis, MN.
Deleuze, G., Parnet, C., 2002. Dialogues II. Columbia University Press, New York.
Desrosières, A., 1998. The Politics of Large Numbers: A History of Statistical Reasoning. Harvard University Press, Cambridge, Mass.
Espeland, W.N., Stevens, M.L., 1998. Commensuration as a Social Process. Annual Review of Sociology 24, 313–343.
Foucault, M., 1983. Afterword (1983). On the Genealogy of Ethics: An Overview of Work in Progress, in: Dreyfus, H.L., Rabinow, P. (Eds.), Michel Foucault: Beyond Structuralism and Hermeneutics. 2nd Edition. University of Chicago Press, Chicago, pp. 229-252.
Foucault, M., 2001 [1982]. The Subject and Power, in: Faubion, J.D. (Ed.), Michel Foucault: Essential Works of Foucault 1954-1984. Power. Vol. 3. The New Press, London, pp. 326-348.
Foucault, M., 2008. The Birth of Biopolitics. Lectures at the College de France, 1978-1979. Palgrave Macmillan, New York.
Gordon, C., 2014. Plato in Weimar - Weber revisited via Foucault: two lectures on legitimation and vocation. Economy and Society 43, 494-522.

Hacking, I., 1990. The Taming of Chance. Cambridge University Press, Cambridge.
Hacking, I., 1991. How Should We Do the History of Statistics?, in: Burchell, G., Gordon, C., Miller, P. (Eds.), The Foucault Effect. Studies in Governmentality. Harvester Wheatsheaf, London, pp. 181-195.
Hacking, I., 2002. Making Up People, in: Hacking, I. (Ed.), Historical Ontology. Harvard University Press, Cambridge, Mass., pp. 99-114.
Hirschman, A.O., 1997 [1977]. The Passions and the Interests. Political Arguments for Capitalism before Its Triumph. Princeton University Press, Princeton.
Kurunmäki, L., Miller, P., 2013. Calculating Failure: The Making of a Calculative Infrastructure for Forgiving and Forecasting Failure. Business History 55, 1100–1118.
Liebling, A., 2004. Prisons and Their Moral Performance: A Study of Values, Quality, and Prison Life. Oxford University Press, Oxford.
Mennicken, A., 2013. "Too Big to Fail and Too Big to Succeed": Accounting and Privatisation in the Prison Service of England and Wales. Financial Accountability and Management 29, 206–226.
Mennicken, A., Miller, P., 2014. Foucault and the Administering of Lives, in: Adler, P.S., du Gay, P., Morgan, G., Reed, M.I. (Eds.), The Oxford Handbook of Sociology, Social Theory, and Organization Studies: Contemporary Currents. Oxford University Press, Oxford, pp. 11-38.
Miller, P., 1990. On the Interrelation Between Accounting and the State. Accounting, Organizations and Society 15, 315-338.
Miller, P., 1992. Accounting and Objectivity: The Invention of Calculating Selves and Calculable Spaces. Annals of Scholarship 9, 61–86.
Miller, P., O'Leary, T., 2007. Mediating Instruments and Making Markets: Capital Budgeting, Science and the Economy. Accounting, Organizations and Society 32, 701-734.
Miller, P., Power, M., 2013. Accounting, Organizing, and Economizing: Connecting Accounting Research and Organization Theory. Academy of Management Annals 7, 557–605.
Morgan, M.S., 2010. 'Voice' and the Facts and Observations of Experience, in: Gonzalez, W.J. (Ed.), New Methodological Perspectives on Observation and Experimentation in Science. Netbiblo, Oleiros, pp. 51-69.
Muniesa, F., 2014. The Provoked Economy: Economic reality and the performative turn. Routledge, London.
Musil, R., 1979. The Man Without Qualities. Pan Books, London.
Porter, T.M., 1995. Trust in Numbers: The Pursuit of Objectivity in Science and Public Life. Princeton University Press, Princeton.
Rose, N., 1991. Governing by Numbers: Figuring out Democracy. Accounting, Organizations and Society 16, 673-692.
Rose, N., Miller, P., 1992. Political Power Beyond the State: Problematics of Government. British Journal of Sociology 43, 172-205.
Simon, J., 2005. Reversal of Fortune: The Resurgence of Individual Risk Assessment in Criminal Justice. Annual Review of Law and Social Science 1, 397-421.
Supiot, A., 2015. La Gouvernance par les nombres. Fayard.
The Department of Health, 1997. The New NHS: Modern, Dependable. Cm 3807 HMSO, London.