

Calculating Obesity, Pre-emptive Power and the Politics of Futurity: The Case of Change4Life

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in Louise Amoore and Volha Piotukh (eds.) (2016) *Algorithmic Life: Calculative Devices in the Age of Big Data*, London and New York: Routledge.

Calculation starts by establishing distinctions between things or states of the world, and by imagining and estimating courses of action associated with those things or with those states as well as their consequences (Callon and Muniesa, 2005: 1231).

[Risk calculation beyond probability] seeks not to forestall the future via calculation but to incorporate the very unknowability and profound uncertainty of the future into imminent decision (Amoore, 2013: 9).

What is certain is that this epidemic of 'passive obesity' is unlikely to come to a natural end, i.e. without intervention (Foresight, 2007: 17).

Making calculations about the future is a central activity of government, and hence is one way in which power functions. This Chapter approaches the question of calculation via a focus on the British government's ongoing public health campaign, Change4Life. This is a social marketing campaign that seeks to intervene in an impending obesity crisis, as the above quotation from a report published by the government's 'horizon scanning' centre¹, Foresight, demonstrates, and to which Change4Life responds. The Chapter draws on an argument made in previous work (Coleman, 2012) that analyses the campaign as a series of images, but here I develop this analysis to more clearly focus on how Change4Life functions as a social marketing campaign, which extends economic calculation into the realm of the social. My specific interest is in exploring further what Michel Callon and Fabian Muniesa (2005) refer to above as the imaginative and/or estimative aspects of calculation. I will suggest that 'establishing distinctions between things or states of the world' has a temporal dimension, whereby differences are made between what is apparently evident in the present, and what might be possible in the

future. And I will argue that such a mode of calculation is becoming a central means through which power operates today; that is, as the quotation from Louise Amoore (2013) indicates, power is increasingly becoming caught up in, and filtered through, a pre-emptive temporality, where the future is brought into and comes to organise the present – for some social groups more than for others.

Change4Life

The most visible way in which the UK government has attempted to deal with the impending obesity crisis is the Change4Life campaign. Officially launched in January 2009 as a 'lifestyle revolution' (Secretary of State for Health Alan Johnson, quoted in Donaldson and Beasley, 2008: 2), the Department of Health describes this campaign as 'a society-wide movement that aims to prevent people from becoming overweight by encouraging them to eat better and move more'. The campaign is described as both 'the marketing component of the Government's response to the rise in obesity' and, more widely, as a '*social* marketing campaign' (Department of Health, 2010: 13, my emphasis), so that '[r]ather than taking a top-down approach, the campaign set out to use marketing as a catalyst for a broader societal movement in which everyone who had an interest in preventing obesity [...] could play a part' (2010: 13-14). The campaign has thus involved a wide range of high profile activities across different platforms, including traditional forms of advertising on television and billboards, digital communications, relationship marketing and stakeholder engagement via events and tutorials, and has been addressed to a variety of social groups. Indeed, as I will discuss below, Change4Life works through specific calculations that consider particular groups as at risk of obesity, now and/or in the future.

Calculation, markets and social marketing

'Calculation' has been theorised from a number of different perspectives, with arguments from Science and Technology Studies being particularly prevalent.² For Callon and Muneisa, for example, it is necessary to develop a concept of calculation in order to understand how *markets* function as 'collective devices that allow compromises to be reached, not only on the nature of the goods to produce and distribute but also on the value to be given to them', in both abstract and practical senses (2005: 1229). These authors argue that existing theories of calculation require re-thinking. While neoclassical economic theory tends to see calculation as the inevitable result of the rational, calculative nature of individual agents, Sociology and Anthropology challenge the idea of 'pure' calculation, providing detailed accounts of how calculative behaviours

are sets of judgements that emerge out of heterogeneous interactions and decisions (2005: 1230). The result of these two approaches is that either the quantitative or qualitative aspects of calculation is emphasised, and that calculation and judgement are separated; a divide they counteract by offering their definition of calculation, as set out above, that works through a three-step process.

The first step is an awareness that '[a] finite set of entities are moved, arranged and ordered in a single space' (2005: 1231). 'An invoice, a grid, a factory, a trading screen, a trading room, a spreadsheet, a clearing-house, a computer memory, a shopping cart' (2005: 1231) are all cases of this 'single space'. This first step thus involves the detachment of 'the entities taken into account' from one site and their movement into another, in order for them to become calculable (2005: 1231). The second step involves the 'manipulations and transformations' of these entities that have become associated with each other (2005: 1231); and the third step is 'a result [that] has to be extracted' (2005: 1231):

A new entity must be produced (a sum, an ordered list, an evaluation, a binary choice, etc.) that corresponds precisely to the manipulations effected in the calculative space and, consequently, links (*summa-rises*) the entities taken into account. This resulting entity is not new, in the sense of springing from nowhere; it is prefigured by the considerations described above [in step one and two]. But it has to be able to leave the calculable space and circulate elsewhere in an acceptable way (without taking with it the whole calculative apparatus).

Callon and Muniesa (2005) argue that their conception of calculation draws attention to the *politics* of markets, especially in providing empirical and theoretical means for studying the many, potentially divergent, entities that become associated and the different steps through which calculation occurs. Such attention, they suggest, opens up debate on how 'there are several ways of calculating values and reaching compromises' (2005: 1245). What entities are included and excluded from a space of calculation, for instance? What manipulations and transformations occur? What is the new entity that is produced, and how does it circulate beyond the space in which it was created?

These questions can begin to be addressed in terms of the Foresight report, briefly introduced above, which sought to 'challenge the simple portrayal of obesity as an issue of personal willpower' by emphasising social environment (2007: i). It is largely based

on quantitative modelling of future trends, using a dataset that shows that, in 2004, 23.6% of UK men and 23.8% of women were obese (Foresight 2007: 26). Foresight predict that, by 2015, 36% of adult males and 28% of adult females will be obese; by 2025 this will rise to 47% and 36% respectively; and, by 2050, this could be 60% and 50% respectively (2007: 35). Calculating future trends for children is 'controversial because of difficulties stemming from variation in normal patterns of growth, weight gain and changes in body composition' (Foresight, 2007: 26). However, based on current levels of 8% of males and 10% of females who are obese, and taking into consideration the uncertain results of their methodology, the Foresight report suggests that, by 2015, 15% of under 20s are predicted to be obese, and by 2050, this could be 25% (2007: 36).

It is worth noting here that the Foresight report focuses only on obesity, whereas for the Change4Life movement it is the categories of obese *and* overweight that are at stake. This makes it difficult to trace how the Foresight predictions that by 2050 obesity levels could be at 60% for men and 50% for women map onto those stated by Change4Life, i.e. that 'by 2050 nine out of ten adults could be overweight or obese'. However, these higher statistics related to obesity and overweight are reiterated in various ways across the Change4Life movement:

By the time we reach middle age, the majority of us could do with losing at least a bit of weight (Change4Life website, About Change4Life page).

kids need to do at least 60 minutes of physical activity that gets their hearts beating faster than usual. And they need to do it every day to burn off calories and prevent them storing up excess fat in the body (Change4Life website, Get Going page)³.

Likewise, one of the television adverts ('What's it all about?', 2009) asserts that, if we don't something now, 'nine out of ten of our kids would grow up to have dangerous amounts of fat built up in their bodies, which meant they'd be more likely to get horrid things like heart disease, type 2 diabetes, and cancer'.

The Change4Life campaign can be conceived in terms of Callon and Muniesa's (2005) definition of calculation as bringing different entities into association in a particular space, manipulating and transforming these entities via calculation, and producing a new entity out of this calculative space, which can nevertheless circulate on its own

terms. Thus, Foresight brings into relation a number of different human and non-humans – bodies, genders, ages, weights, temporal points (the years 2004, 2015, 2050 for example) – and manipulates and transforms these associations via a series of calculative methodologies into a set of predictions about future levels of obesity. Change4Life is the response to these predictions, that is, it is the creation of a new entity that emerges out of, but circulates without reference to, Foresight’s calculations.

In addition to the focus on the politics of markets, Callon and Muniesa propose that their definition of calculation also enables an attention to ‘the increasing role of research and *experimentation* in the conception of markets’ (2005: 1245, my emphasis). This interest in experimentation is significant to my focus on the Change4Life campaign for (at least) two reasons. First, as I will discuss in more detail below, experimentation suggests an open-ended notion of futurity. That is, calculation is not only or so much involved in the taming of the future as it is in recognising its uncertainty. Second, Callon and Muniesa’s account of the market as constituted, at least in part, via experimentation, can be extended to an understanding of *marketing*, and of *social marketing* especially. Liz Moor’s (2011, 2012) insights are particularly illuminating here. In her analyses of social marketing, Moor puts to work a framework derived from Actor-Network-Theory, which sees social marketing as a ‘project or network’ into which human and non-human agencies are enrolled so as to ‘forge ties and attachments between them and to stabilise ties through durable materials’ (2012: 566). Although not discussing Callon and Muniesa’s conception of markets as calculative devices, Moor’s account of social marketing attends to the ways in which different entities are brought into a calculable space and a new entity is produced. Indeed, Moor explains that social marketing, which has its roots in 1960s and 1970s America (2012: 566), was developed specifically ‘*as a market*’ (2012: 569), a deliberate experimentation with extending the territories and influences of marketing into the social realm, ‘tak[ing] on responsibilities that otherwise might be taken up by the state’ (2012: 567).⁴ As such, social marketing established new associations between entities (populations, technologies, knowledges) and created a new entity (a market or series of markets)⁵.

Furthermore, as Moor outlines, in its extension from the economic to the social and/or cultural realm, social marketing has been enthusiastically taken up by Western governments.⁶ For example – and importantly for the focus of this Chapter – in the UK in 2006 the Department of Health established the National Social Marketing Centre (NSMC), which ‘through various reports, white papers and a large grant, [was] endowed

... with the authority and resources to draw other institutions and agencies into its orbit' (Moor, 2012: 569). The NSMC produces a range of social marketing resources, including offering training and mentoring for practitioners, and creating networks of affiliated organisations and researchers, who, as Moor notes, are 'then very well placed to win contracts for large-scale, national-level health interventions based on social marketing techniques and insights' (2012: 569). Significantly, given its instigation in the Department of Health, the NSMC has focused heavily on 'health equity' projects, including developing England's national marketing strategy for tobacco control (2007-2010) and Change4Life (2008 – ongoing).

While questions of politics and power are of course not only to be understood in terms of the calculations that governments might make – as Callon and Muniesa's (2005) conception of calculation makes clear, politics are apparent across a range of different fields – government initiatives are one way in which it is helpful to examine how power functions via calculation. Indeed, Moor posits social marketing 'as a form of governance involving the deployment and coordination of a variety of actors, representations, techniques, and objects' and argues that the 'NSMC's methods for identifying and describing populations, and for working on and measuring them, are also grounded in a market model in which populations are considered above all as consumers rather than, for example, citizens or patients' (2011: 300). In this way, social marketing is part of wider neo-liberal modes of governance, where 'social interventions are brought into the frame of economic calculation' (Moor 2011: 310).

It is certainly plausible to understand the Change4Life campaign along these lines: the Department of Health's *One Year On* report on Change4Life explicitly describes the campaign as a response not only to an impending health crisis, but also to a potential financial crisis, stating that '[t]he annual cost to society of obesity-related illness could reach £50 billion by 2050 at today's prices' (2010: 11). Other analyses of Change4Life have also highlighted its role as a neo-liberal form of governance. For example, Bethan Evans et al. (2011) have argued that, while it attempts to locate individuals within broader social contexts and to problematise the notion of obesity being the consequence of a failure of willpower, the campaign ends up reinforcing 'a neoliberal, rational model of embodiment, in which a healthy body is seen as a product of conscious control persists as the assumed "healthy" model' (2011: 333). Drawing on Andrew Barry's (2002) conception of 'the politics of calculation', which posits measurement as the method through which 'a whole range of objects and problems [are] brought into the

frame of economic calculation' (Barry 2002: 273, cited in Moor 2011: 312), Moor proposes that 'once [objects and problems] become calculable, it is assumed that political contestation over the nature of the problem has ended' (2011: 312). As such,

the interventions of the NSMC may have short- or longer-term benefits for the populations they target, but they may also – through their institutionalization, standardization, and focus on calculation and measurement – have the effect of stifling debate about the causes of social problems and the best way to address them (2011: 312).

In other words, as a social marketing campaign that extends economic calculation into the social realm and where measurements about weight are absolutely crucial, Change4Life both addresses itself to and solves the problem of obesity. The politics of calculation – where, as Callon and Muniesa (2005) argue, there are 'several ways of calculating values and reaching compromises' – is closed off from further exploration, and value – both economic and moral (see Throsby, 2009; Evans et al., 2010) – is filtered through a neo-liberal agenda.

Drawing on these arguments concerning neo-liberal politics and the extension of economic calculation into the social through social marketing, in the next section I examine the imaginative and/or estimative aspects of calculation and social marketing as experimental and/or performative (in that it constitutes new associations and entities) in more detail, paying particular attention to how power operates through a concern with futurity.

Prevention, pre-emption and the uncertain future

As discussed above, social marketing can be understood as a performative discipline, in that it was in the first instance concerned with the creation of new markets (seeking to adjust social rather than, or as well as, economic behaviour) and – more broadly – because it brings into being that in which it seeks to intervene. Moor argues that the performative character of social marketing

is especially clear in the case of the NSMC, which [...] was given the authority to constitute itself as a source of knowledge and expertise, to construct various populations (including health-care professionals as well as unhealthy

populations) as legitimate objects of that authority, and to seek to remake those object-worlds in its own image (2011: 306).

In the sense of their performativity, social marketing campaigns, such as Change4Life, can be understood to be engaged in the construction of particular futures: Foresight's insistence that the 'epidemic of "passive obesity" is unlikely to come to a natural end' (2007: 17) sees Change4Life intervening in what is set up to be the involuntary unfolding of an obese, and thus unhealthy and costly, future. In this way, the campaign seeks to create the possibility of an alternative and better future. In the words of one of the television advertisements, the campaign aims to get us moving more and eating better so that we can 'all live [...] happily, not exactly ever after, but more ever after than we had done' ('What's it all about?' TV advert, 2009).

If social marketing can be understood as a mode of governance that is central to contemporary Britain, the campaign's intention to enrol us in the creation of a better future through exercise and healthy eating can be placed within a wider context, where power has become concerned with and refracted through the future (Coleman, 2012). One way to conceive the relationship that Change4Life has to the future is in terms of prediction. As I have suggested above, based on levels of obesity in 2004, the Foresight report makes predictions about levels of obesity in 2015 and 2050. These predictions are then mobilised by Change4Life, as government documents explicitly state, in the creation of a 'preventative not remedial' social marketing campaign:

the programme was not set up to recruit overweight or obese children into weight loss programmes but to change the way all of us raise and nourish our children, with the aim of creating a cohort of 5–11 year olds who have a healthy relationship with food and activity (Department of Health, 2010: 13).

Prevention, according to Brian Massumi (2005), is associated with a mode of power underpinned by a linear temporality; it is rooted in the present and seeks to prevent an event happening in the future. However, in contrast to being a preventative campaign, Change4Life might be better understood as *pre-emptive*.

Pre-emption, Massumi argues, is performative in that it

does not prevent, it effects. It induces the event, *in effect*. Rather than acting in

the present to avoid an occurrence in the future, preemption brings the future into the present. It makes the present the future consequences of an eventuality that may or may not occur, indifferent to its actual occurrence. The event's consequences precede it, as if it had already occurred (2005: 8).

The linear progressive temporality of prevention is thus re-worked with pre-emptive politics. Pre-emption 'suspends the place of the present in the traditional time-line' (Massumi 2005: 9) and, instead, 'brings the future into the present' so that the future is an event that exists and must be acted on in the present. *Whether or not* the prediction that in future 'nine out of ten of our kids would grow up to have dangerous amounts of fat built up in their bodies' is correct or will occur, it is brought into the present and effects the present, 'as if' the event 'had already occurred'⁷.

This disruption of linear progression amplifies the role of uncertainty in contemporary socio-economic life. Projections have always involved uncertainty because, as Massumi argues, '[t]here is always an "if", since [projections] indicate trends rather than grounding laws' (Massumi, 2005: 3). Projections associated with prevention depend on the *control* of such uncertainty through linear progression ('this past will result in this present and then in this future'). Linear progression remains integral to Change4Life, in that the campaign aims to intervene in the present to avoid an obese future unfolding, seemingly passively. However, with Change4Life, uncertainty becomes that which must not so much be controlled as *oriented around*: 'the trend is *characterized* by uncertainty' (Massumi, 2005: 3, my emphasis). The temporality of linear progression is thus replaced by (or at least joined by) a temporality that prioritises the uncertain future. 'The centre of gravity' is shifted from preventing an event via a more or less smooth unfolding of the present into the future, to a threat; 'an indefinite future tense: what may yet come' (Massumi, 2005: 3). The political axis comes to '*act on the future*' (Massumi, 2005: 3).

Discussing the increasing prevalence of pre-emptive politics, Amoore draws attention to the changing function of calculation within such a context.⁸ Beginning with Ulrich Beck's (1992) influential work on risk society, in which the uncertain future is to be managed and tamed, she explains that Beck sees 'the limits of risk society [as] reached when threats and dangers run out of control and actuarial calculations can no longer be made' (2013: 7). However, Amoore argues that, rather than signaling the end of risk calculation, as Beck's approach would suggest, events such as 9/11 and the financial

crash of 2007, indicate a 'politics of possibility [that] pushes back the limits of risk calculation beyond probability' (2013: 8). Probability – calculated at least in part through prediction – is replaced by (or joined by) uncertainty and possibility. One of the central features of such a politics of possibility is the disturbance of the linear temporality that risk calculations developed in the nineteenth- and early twentieth-century worked through. Here, '[t]he collection of knowledge on the past – in the form of data analysed for statistical purposes and calculated in the present – became the dominant risk tool for predicting and controlling the future' (Amoore, 2013: 63). These earlier calculative projects work via a linear temporality in an attempt to control the future. In contrast, the politics of possibility 'acts not to *prevent* the playing out of a particular course of events on the basis of past data tracked forward into probable futures but to *preempt* an unfolding and emergent event in relation to an array of possible projected futures' (2013: 9).

For Amoore, this pre-emptive temporality occurs through derivative forms of risk, where data can be assembled and re-assembled in ways that are 'indifferent to, and in isolation from, underlying probabilities' (Amoore 2013: 61). Derivative forms of risk are 'precisely indifferent to whether a particular event occurs or not. What matters instead is the capacity to act in the face of uncertainty' (2013: 62). Calculation in this sense is not that which tracks from the past into the present and on into the future – as predictive modes of analysis would imply – but is closer to the definition that Callon and Muniesa propose, whereby different entities are detached from their context, 'moved [into], arranged and ordered in a single space' (2005: 1231), in which they are manipulated and transformed in order to produce a new entity that can circulate acceptably beyond its calculative space. The pre-emptive temporality through which the politics of possibility function involves

more speculative and imaginative forms of calculation. Where data on past events are incomplete or absent, probabilistic knowledge is loosened to incorporate assumptions about that which is merely possible (Amoore, 2013: 31).

The 'merely possible' thus becomes the uncertainty that is brought into the present, the yet-to-come that the political axis must act on.

In what ways might Change4Life be understood in terms of the politics of possibility? How does it seek to act on the future? And what are the politics of pre-emptive

temporality? In order to address these questions, in the rest of this Chapter, I unpack the conceptions that Change4Life have of their target markets through a focus on the relationship between its digital elements and the importance of organising 'real life' events for some social groups especially. In part, this focus is to take account of the range of activities through which Change4Life works, and, in part, it is to explore further the modes of calculation that the campaign employs. In particular, drawing on the discussions of social marketing as experimenting with the extension of the economic into the social and of the 'speculative and imaginative forms of calculation' (Amoore, 2013: 31) emerging as significant today, I argue that Change4Life be understood as a mode of power whereby the future as uncertainty is mobilised to enrol specific 'clusters'⁹ of people of at risk of obesity and thus as in need of intervention.

The politics of futurity

I have suggested that the future as uncertainty or possibility has become an increasingly prominent temporality of contemporary socio-economic life, and that new forms of calculation play a crucial role in how government comes to 'act on the future' (Massumi, 2005: 3). Importantly, in acting on the future, the Change4Life movement works with the threat of obesity not via suggesting a dystopia, but rather by suggesting the future as a time of possibility. *If we change for life now, if we eat better and move more*, the future will be happier, healthier, longer-lasting. This possibility of the future is thus contained or pre-empted within the present. The emphasis on uncertainty and possibility might seem to suggest that the future is necessarily or inevitably a better time; indeed, this is what Change4Life proposes, with its focus on 'the happily ever after' that can be achieved with healthy eating and exercise. However, drawing on the discussion so far, I want to argue that the future as uncertainty or possibility is a means through which power functions today. That is, the pre-emptive temporality whereby the uncertainty of the future is brought into the present, is not felt or lived out in the same way by everyone. Rather, both access to and the requirement to live out the future as possibility is distributed unequally. In this sense, it is necessary to consider in more detail the *politics* of futurity. In what ways and with what effects/affects is pre-emption a temporality that engages different people differently?

To argue that contemporary forms of power function – at least in part – via the uncertainty or possibility of the future is to draw through recent theories of non-representational, affective or post-hegemonic power. Scott Lash, for example, argues that power is 'a potentiality [with] an inherent capacity for growth, development or

coming into being' (2010: 4), while, as discussed above, Massumi (2005) suggests that politics becomes organised around uncertainty; the future as the threat of what might yet come¹⁰. It is also to draw through Amoore's conception of the forms of calculation that risk as part of the politics of possibility indicate, where '[t]o manage risks ahead of time is to enrol modes of calculation that can live with emergence itself, embrace and re-incorporate the capacity for error, false positive, mistake, and anomaly' (2013: 9). The future as uncertainty or possibility is thus not necessarily a better time, somehow beyond calculation, nor a time that can be predicted or controlled. Instead, the uncertainty of the future has itself been brought into the scope of calculation. The uncertainty of the future has, I suggest, come to matter more. And, in keeping with the ways in which power involves some more than others, the future as uncertainty is (made to) matter to some more than others.

There are many ways in which Change4Life seeks to pre-emptively enrol particular groups of people as at risk of obesity. As Evans et al. (2011) have argued, Change4Life's focus on improving children's weight and health targets mothers as 'gatekeeper of diet and activity' (Department of Health, cited in Evans et al., 2011: 332) and 'aims to produce healthy bodies through acting on intergenerational relations' (2011: 331). Indeed, children are also seen as a site of possibility, not only because of their age, but also because they can "'transmit" health education' to and between adults, for instance by relaying information learnt at school to their parents (Evans et al., 2011: 336).

Of interest here however, is the significant range of Change4Life activities that occur online, with a website that is regularly updated and a facility that allows interested people to sign up for emails that give them ideas for new ways to eat better and move more. Interestingly, in a Department of Health Equity Analysis document that outlines the requirement of a social marketing campaign for health in England (of which Change4Life is one aspect), these specific aspects of the campaign are understood by as engaging 'wealthier, better-educated people with managerial jobs' (2011: 3). In contrast:

While access to new technologies has been growing rapidly, there are still nine million people in the UK who have never accessed the internet. These people are more likely to be older, to have fewer qualifications and lower income than those who do use the internet. In addition, there are 4.8 million people living in Great Britain who report that they never read or even glance through a newspaper.

Moreover, 4.4 million people report that they never watch any television news or current affairs programming. 785,000 people could be termed 'information poor' in that they fall into both groups (2011: 3).

The 'information poor' are in many cases the social groups – or 'clusters' – that the campaign wants to reach in order to change behaviour. In particular, it is worth noting that a 'bespoke' ethnic minority campaign was commissioned from a 'specialist ethnic minority marketing agency' and launched in Luton in late 2009. The programme included publishing materials in languages other than English, working closely with primary care trusts, local authorities, healthcare professionals and others working with communities, including 'engaging authority figures (such as faith leaders)' and 'working with respected celebrities from the communities' (Department of Health, 2010: 76). Indeed, while the Change4Life campaign in general extended from published materials and print and broadcast adverts into the 'real world', the more specialised ethnic minorities campaign placed particular emphasis on the significance of this (real-world) aspect.

In Luton, for example, Change4Life worked in partnership with the local Borough Council to organise a series of events, including the Stockwood Family Fun Day in 2009, and another event at Wardon Park in 2011. The Borough Council also initiated its own version of Change4Life, 'Take 3 4 Life', which encourages adults to be active at least three times a week for at least 30 minutes. In Bradford, another area targeted by the Change4Life bespoke ethnic minorities campaign, local Pakistani and Bangladeshi community leaders attended a Change4Life conference in November 2009 to learn about the obesity problem in the locality, and to find ways to address it. One activity included

[c]onsultant nutritionist, registered dietician and best-selling author, Azmina Govindji, [...] demonstrat[ing] easy to follow steps to a healthier diet, giving traditional Pakistani and Bangladeshi meals a healthier twist and showing the audience a range of "sneaky swaps" to incorporate the recommended 5-A-Day into their diets'.¹¹

These demonstrations were then taken up by community leaders in cooking workshops, held in local communities, and local press highlighted supermarket offers on fresh fruit and vegetables. In addition, the Department of Health offered continued

support on healthy eating, including in January 2012 YouTube cooking tutorials hosted by the British Caribbean celebrity chef Ainsley Harriott.

In seeking to target some of the 'at risk' clusters effectively, the campaign seems to emphasise the need to engage *directly*, so that 'the digital' aspects of Change4Life are seen as *distancing* the message of healthiness from those that it needs to reach. For this message to be effective, Change4Life *must intervene directly into the real, physical, actual life of the at risk groups*.

Working as, and through, pre-emption, the future that the campaign imagines is thus not an abstract calculation, but is *made to matter* in and through various attempts to produce healthier and happier people. Here, it is worth returning to the experimental and performative character of both social marketing and calculation. The calculations made by and circulated through Change4Life are brought to life and 'essentially virtual notions [...] are able to take on flesh as, increasingly, the world is made in these notions' likeness' (Thrift, 2005: 6). Here, then, as Amoore argues, '[t]he contemporary politics of possibility marks a change in emphasis from the statistical calculation of probability to the algorithmic arraying of possibilities *such that they can be acted upon*' (2013: 23, my emphasis). Power operates not so much 'over' people, but through enrolling and compelling them to act, to materialise, particular possibilities. Callon and Muniesa's (2005) argument that calculation assembles together different entities, manipulates and transforms them and creates a new entity might therefore be developed to understand this new entity as requiring *action*. That is, part of the 'appropriate' or successful circulation of the new entity beyond its initial calculative space is for these calculations to be acted on, to become flesh. Change4Life moves from the calculative space of the Foresight document to a range of activities targeted at some social groups. The efficacy of Change4Life is the taking up of, the living out of, these possible activities. And, as I have argued, the acting out of particular possibilities is the acting out of particular relationships to *the future*.

In this way, Change4Life does not so much re-draw social differences as *make* social differences differently. This is to argue that power, refracted through the uncertainty of the future, is not only *regulating* social differences, but is *making or (re)inventing* difference. As a form of governance, Change4Life impels *some* more than others to act on, and act out, the future as potential. For those who belong to the groups classified as at risk of obesity and overweight, the future is brought into the present via the pre-

emption of the threat of obesity, and calculations are acted out in and as flesh, whether or not they are correct or plausible. Social marketing plays a significant role here. For example, one of the justifications for deciding to tackle public health issues through social marketing that the Department of Health (2011) makes is because

We believe that the social marketing strategy [devised for, among others, the Change4Life campaign] has the potential to make a positive impact on equality groups, through reducing the barriers that currently exist, through bolstering motivation to change/adopt healthier behavior among less-engaged groups and increasing access to information and other forms of marketing-driven support' (2011: 14).

Indeed, as the Department of Health describes in its account of the need for social marketing to tackle public health issues, Change4Life is a movement that has

been prioritized because [it] address[es] those segments of the population who are greatest users of health services, because there is prior evidence that marketing can have an impact in these areas and/or because as strong case can be made that *people's lifestyles are amenable to change*' (Department of Health, 2011b: 5, my emphasis).

The uncertainty of the future and the amenability to change that some clusters of the population are seen to have, have here become not only one of the aims of Change4Life, but *one of the ways in which at risk groups are themselves calculated and targeted*. The uncertain future and the capacity for constructing a different relationship to this future becomes a means of defining those bodies 'at risk' of future bad health and calculations become a key way in which these transformations are to be acted out. The future thus becomes not only an objective – that which is worked towards – but a means through which social differences are understood and made. What this might direct our attention towards, then, is '*a material reworking of time itself*' (Adkins, 2009: 335, my emphasis), and how the calculations involved in pre-emptive, rather than linear, time are becoming an organiser of social difference.

Acknowledgements

I would like to acknowledge and thank Liz Moor, Joe Deville, members of the ESRC *Austerity Futures* seminar series and participants at the *Calculative Devices in a Digital*

Age conference, organised by the editors of this volume, for developing my thinking for this Chapter.

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Notes

¹ In 2009, at the time of the report, Foresight was located within the Department for Business Innovation and Skills. It is now housed in the Government Office for Science.

² For reasons of space, in the discussion below I discuss only Callon and Muniesa's work. For further STS work on calculation, see also: Latour (1987); Callon (1995); Barry (2002); and Deville (forthcoming).

³ Change4Life website homepage: <http://www.nhs.uk/change4life/Pages/change-for-life.aspx>, last accessed 10th July 2014.

⁴ Although as Moor notes, this is not necessarily an ever-expanding influence (see 2012: 6-7).

⁵ See also Nadesan (2008) on the construction of markets for pharmaceutical interventions into mental health illnesses.

⁶ Moor notes that in the UK in 2010, the government was ‘the fifth largest spending advertiser in the country’ (2012: 3).

⁷ On Foresight and Change4Life as pre-emptive, see also Evans (2010).

⁸ Amoores’s focus is on risk and security post 9/11. While it would be a push to define Change4Life within these terms, there are nevertheless helpful connections to be made between Amoores’s argument and my focus here..

⁹ The *One Year On* report uses the term ‘clusters’ to define risk of obesity through habit and behavior, rather than through classical sociological categories such as class and ethnicity (2010: 94). However, these clusters do often map on to pre-existing categories; see Coleman (2012).

¹⁰ See Coleman (2012) for a more detailed discussion of this point.

¹¹ This quotation was taken from, <http://www.phn-bradford.nhs.uk/NR/rdonlyres/A265A98B-A9A9-42F5-AFD9-95E243CF3B87/0/Event201109.pdf>, last accessed 22nd January 2012, and no longer live. See: <http://www.bradford.nhs.uk>, last accessed 10th July 2014.