Anti-ageing cultures, biopolitics and globalisation

BRETT NEILSON

In March 2004 I attended the Inaugural International Conference on Longevity at the Sydney Exhibition and Convention Centre in Darling Harbour. Visiting this event was, for me, a way of taking stock of what it means to live in an ageing society. As a cultural researcher interested in the interactions between demographic shifts, capitalist globalisation and changing forms of political power, the prospect of a direct encounter with the debates and practices surrounding the burgeoning field of anti-ageing medicine promised a means to observe the complex cultural dynamics of population ageing in action. From the moment I set foot in the conference, I was unsure whether I had entered a public forum or a private marketplace. As I stayed on, it became clear not only that these two things, in this context as in so many others, are becoming one and the same, but also that this tendency does not issue in dialectical synthesis or a race to history's end. What I witnessed was discord, a quarrel that, despite the march of technological advance, attests the ongoing conflict in the nexus where politics meets life.

Outside the main auditorium was a showroom filled with an intriguing array of booths and exhibits. The whole spectrum of anti-ageing products and services was on display: from nutraceuticals and cosmeceuticals marketed by companies with names like Bioconcepts and Metagenics to infrared saunas, energised water, testosterone patches and courses in 'integrative medicine' offered in partnership with the American Academy of Anti-Ageing Medicine (A4M). What I encountered upon entering the auditorium was strikingly different. Four senior US biogerontologists were launching an attack on the very kinds of goods and practices being promoted outside. Among the speakers were Jay Olshansky, Bruce Carnes and Leonard Hayflick, authors of a position statement entitled 'No Truth to the Fountain of Youth'

published in *Scientific American* in 2002 and signed by an international roster of 51 scientists and physicians.[1] Hayflick, in particular, gave a memorable talk. Declaring that no intervention can stop, slow or reverse the ageing process in humans, he repeated his well-known and authoritative claim that the phenomenon of cell death or *apoptosis* reflects an intrinsic limit to the human biological life span.[2] But, after the papers were delivered and Olshansky had awarded what he called the Silver Fleece Award for anti-ageing quackery to an A4M developed product named Prime Blends™, something interesting began to happen. One after another, audience members rose to their feet to contest the scientists' claims, to declare that it wasn't so for them, and even to publicly announce their intention to live for extended periods—until 150 years, in one case. It was over a year later that I discovered that Ronald Klatz and David Goldman, the founders of A4M, had launched a defamation suit against Olshansky for his antics at this conference.[3]

Clearly, I had walked onto contested ground. But what is at stake in these quarrels over anti-ageing medicine? And what interest might they have for the cultural researcher, who worries less about the technical viability of the goods and services promoted by the anti-ageing industry than the complex social and cultural circumstances that have led to the unprecedented expansion in this field. I have to admit to a certain discomfort not only with the scene I encountered but also with the motives that drew me to it. The very notion of conducting a project on anti-ageing cultures had, for me, been a way of combining work in a socially relevant area that might attract funding with an ongoing theoretical and political interest in that loose array of discourses on contemporary global capitalism and power that arrange themselves under the name *biopolitics*. My presence at the conference was thus conditioned by a series of pressures, including the current administration of knowledge in academic settings, which left me conflicted about the approaches I was making and information I was absorbing. Indeed, my visit occurred in the period between the time I had applied for funding to conduct research on anti-ageing medicine and the time I learned that the application was successful. Not only was I conflicted but I was also tentative. Without the knowledge that I would be supported to conduct the project, I could not identify myself as a researcher in the field and consequently I did not see myself as operating undercover.

Despite this in-between state, I was thinking ahead. Cultivating an interest in anti-ageing medicine, I realised, would likely project me in several different directions at once: liaising with policy experts with interests in ageing, interviewing affluent appearance-conscious women in their forties, holding my own in erudite discussions with philosophers and political theorists, reading up on medical journals to address audiences of gerontologists, conversing with activists about the significance of population ageing for global finance or border control, responding with an all-too-ironic sardonicism when asked about my research over coffee or at a party. Yet, in none of these roles (and by now I have performed them

all), could I imagine myself at ease, partly because it seemed that, in each case, my interlocutors would quickly sense the investments and attitudes that compelled me toward the others. This feeling of unease, I would venture, is constitutive for the cultural researcher. And it conditions, at least for me, a moment of resistance as well as a moment of assent to the particular act of intellectual branding that the editors of this special issue of *Cultural Studies Review* seek to carry out.

Such branding exercises are, no doubt, crucial to the ongoing viability of contemporary humanities research, and, particularly, to the game of securing state patronage. But this game, insofar as the Australian state obliges universities to act as corporate enterprises in the global neoliberal environment, is not without its political consequences. Aside from the ministerial vetoes and the ever more refined techniques of research auditing, there is, at the very least, a need to operate simultaneously in other contexts and networks, creating openings for new modes of sociality, organisation, and intellectual and political association. The extent to which cultural research, given current institutional conditions (not least the growing prevalence of precarious labour and speeded-up, performance-managed rhythms of work), can operate in both these fields remains an open question.[4] In any case, the tensions and contradictions I was experiencing at the longevity conference are not isolated incidents but ambiguities inherent to the conduct of cultural research as an engaged social practice.

— Anti-ageing wars

Whatever the predicament of cultural research, it is not the only area of contemporary inquiry that remains indelibly split, perpetually, as it were, at odds with itself. The very presence, at the Darling Harbour conference, of both anti-ageing advocates and their agonists suggests the presence of common interests, shared assumptions, and perhaps even overlapping constituencies. Indeed, in a recent article published in the *Journal of Gerontology*, social gerontologist Robert Binstock argues that the attack on anti-ageing medicine by established gerontological researchers is partly motivated by competition for patients, funding, power and legitimacy.[5] Such an assessment certainly makes sense, given that geriatric medicine in both the US and Australia is a specialty having difficulty reproducing itself. Despite population ageing trends and a shortage of specialists, recruitment to training positions in this field is lagging far behind projected needs.[6] Meanwhile, market research indicates rapid growth in the demand for anti-ageing products and services.[7] It would seem that the struggle I had walked in on was symptomatic of wider shifts in the health care industry and, in particular, of changes that have led to a blossoming consumer market for the so-called baby boom generation.

To approach the controversy in this way, however, is already to understand it in terms wider than its own. For participants in this debate, what is at stake is the technical possibility

of extending the human life span. Since 1998, when James A. Thomson announced that he had successfully isolated human embryonic stem cells capable of continuous division in culture, there has been both renewed hope for and hype about the possibilities for human life span extension.[8] Although largely unrealised in clinical applications, the promise of stem cell research to uncover a kind of latent 'surplus' life in even the most aged bodies has fed the dream of prolongevity.[9] Anti-ageing websites display news about biotechnological developments, reporting not only on stem cell science but also on other areas of research such as tissue engineering, cloning, and telomere maintenance.[10] In this way, the biotechnological imaginary extends across and adds legitimacy to the diverse and contradictory forms of anti-ageing practice, whether they involve regular preventive health procedures, endocrinology, pharmaceuticals, alternative and complementary medicines, dietary and fitness regimes, cosmetic treatments or any other number of therapies from protein boosters to steroids.

In fact, it is this combination of anti-ageing treatments (and the entrepreneurial culture that often surrounds them) that attracts the criticism of the gerontological establishment. The issues here concern not only the technical validity of popular anti-ageing claims to slow or reverse the ageing process but also the prejudicial implications of the term anti-ageing, the uneven access to new technologies and the protection of consumers from fraudulent marketing activities.[11] As Moody observes, however, these questions do not shed light on the wider ethical dilemma of whether a general extension of the human life span is a desirable social outcome or not.[12]

A number of issues are typically raised in this regard. First, there is the question of whether longer life spans will correspond to improved health and quality of life. Most biogerontologists and practitioners of geriatric medicine strive toward the *compression of morbidity*—i.e. the shortening of the period of infirmity at the end of life.[13] Similarly, as a recent study conducted in Los Angeles suggests, most self-identifying anti-ageing practitioners aim 'for the goal of optimizing health and bodily experience'.[14] But it remains an open question as to whether attempts to decelerate or arrest the ageing process will facilitate a decreased period of infirm senescence. The question is crucial not only because of its economic implications but also because recent demographic research suggests that population ageing, while initially entailing an improvement of the health status and health behaviour of ageing people, will eventually lead to the emergence of very old and frail populations.[15] Not surprisingly, anti-ageing advocates are quick to equate their own practice with the promotion of healthy ageing, but this still leaves aside the issue of whether enhanced human longevity should be encouraged.

Another approach to this question is speculative. In her book *Aging, Death and Human Longevity*, philosopher Christine Overall rejects cost-benefit arguments about human ageing to ask how the advocacy of prolongevity leads us to question 'the limits now placed on the

development of human potential'.[16] Her work presents a thought experiment that stipulates the existence of an effective anti-ageing treatment accessible to all. Taking task with apologists such as US Surgeon General Leon Kass, for whom the possibility of life span extension robs humanity of a finitude that lends it dignity, morality and spirituality, she offers a (qualified) endorsement of prolongevity. But she also notes how the aspiration to living ever longer lives raises far-reaching questions: 'What sorts of persons should we human beings seek to become? What sort of lives should we live, and how, if at all, is the length of our lives related to what is possible and desirable for us?'[17] As useful as Overall's approach is for bringing the question of ageing back to first-order philosophical principles, it leaves begging the question of how to translate these principles into practical everyday judgements. No less than the approach that interests itself only in technological possibilities for human life span extension, the social and cultural are left in second place. It thus becomes difficult to ask how, in a world of limited resources and entrenched social opinions, we should resolve issues such as whether to fund stem cell research or allow physicians to prescribe drugs that promise prolongevity.

The work of examining the changing technical conditions for human ageing in combination with the actual, quotidian business of social life in ageing societies has only just begun. This means examining how social and cultural practices precede and are embedded within techno-scientific innovations as well as asking how emergent transformations in the meanings of life, animation and vitality are played out at the level of lived social interactions. Cultural research, for its part, has a significant contribution to make in this regard. First, because it offers a multi-methodological approach, which cuts and combines qualitative techniques such as unstructured interviews and focus groups with wide-ranging discourse analysis and sophisticated theoretical frameworks. Such interdisciplinary combination has the potential to yield results and insights that may be unobtainable through limited disciplinary investigations. Second, cultural research effectively folds micro- into macro-analysis, ranging across all scales—beginning, in the case of the study of anti-ageing cultures, at the sub-cellular level of molecular biology and extending to the transnational space of global flows. But, notwithstanding its declared attraction to the investigation of complex and socially relevant problems, cultural research has been quite slow to take up the issue of ageing.

Indeed, cultural research has, since the early days, been inversely pulled to the analysis of youth cultures. The fledgling field of cultural gerontology at once departs from this youth focus and holds a profound kinship relation to it.[18] It draws upon methodological lessons forged in the analysis of youth subcultures, privileging (but not focusing exclusively upon) the cultural circumstances of older people. This is because, in the contemporary world, it is not only the aged who live in ageing societies. The cultural effects of the current demographic shift, which in Australia will double the percentage of the population aged over 65 by 2050,

are not restricted to the oldest in the population.[19] Indeed, to study the cultural significance of this shift deeply, it is necessary to question the very notion of 'the population' and to ask what the term *demos* is doing in a word like demography.[20]

The sovereign and nationalist assumptions that lie behind our very language for describing the collective dimensions of ageing should alert us to the complex and contradictory connections between biological processes and the mechanisms of governance in today's globalising world. Anti-ageing medicine is one particular 'culture of ageing' (perhaps one can more accurately say a 'subculture of ageing' that is becoming rapidly more mainstream) that emerges with the social and cultural shifts occasioned by the decline of the social state and the impact of globalisation. As Wilson points out, traditional ways of growing old are undergoing rapid transformation as a result of global pressures.[21] Profound changes in labour relations, social programs, retirement and demographic patterns, as well as the cultural and medical stretching of middle age into later life have led to a reorganisation and reconceptualisation of the life course in advanced capitalist societies.[22] It is in the context of these changing patterns that the current disputes over anti-ageing medicine, the so-called 'war on anti-ageing medicine', becomes legible—the squabble that I witnessed at Darling Harbour as much as the high profile debates in *Scientific American* and other venues.[23]

— The biopolitics of ageing

Ageing is a multidimensional process with multiple interlaced effects upon the biological, cultural, social, political and economic planes. Rooted in natural processes of ontogenetic development (which, at a certain level, humans share with animals and plants), ageing takes place in cultural, social, political and economic contexts that interact with each other in complex ways and, in turn, react back into biological processes to shape the condition of the body over time. As living beings, we all experience ageing at the somatic level and, to date, all humans have eventually faced the moment of death, however that might be recognised or defined. But the ways in which we age differ greatly—by gender, race, and class most obviously, but also by historical experiences that effect generational cohorts and the contingencies of individual biographies. As Brennan explains, the 'thing that varies (how we age) is not the same as the thing that is varied (the fact of ageing)'.[24] While the fact of ageing is presented to us as biologically self-evident, the social and cultural variations in how we age clearly have a material existence that involves something more than somatic biology. It is at this level of material immanence that the ageing process criss-crosses that of globalisation. The politics of migration, the surge in biotechnology, the deregulation of financial markets, the changing face of labour: all have important implications for ageing but cannot be understood in isolation from currently unfolding changes in the global organisation

of capitalism. At least this is the case in the contemporary world, where flows of people, goods, money and technology move across national boundaries with varying degrees of ease, challenging the sovereign authority of nation-states and profoundly altering the way in which political power is wielded over life.

That the current ageing of the world's population has planetary implications is beyond dispute. In 1994, the World Bank issued a report entitled *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*, warning of an impending crisis in productivity as post World War II birth rates began to decline and a growing portion of the world's population, both in 'advanced' and 'developing' countries, was no longer engaged in productive work.[25] It is largely for this reason that nation-states have experienced population ageing as a threat, so much so that they have willingly surrendered some aspects of their sovereign power to divest themselves of responsibility for the future consequences of demographic change. This process has taken different paths in different jurisdictions, including the devolution of age-care services to the municipal level (in Sweden), the partial transfer of responsibility for the maintenance of the elderly to communities and networks of 'social capital' (in British Third-Way politics), and the reform of pension systems to oblige investment on global financial markets (in almost every advanced capitalist country), But, in all of these cases, population ageing places a glacier-like pressure on the nation-state, slowly eroding its centralised apparatuses for managing the production and reproduction of life.

To understand these transformations, it is not enough to view the processes of ageing through the lens of globalisation. It is necessary also to work in the other direction, or to view the processes of globalisation through the lens of ageing.[26] As a first step, this means locating global processes in relation to complex changes that occur in the nexus where politics meets life. As is well known, Michel Foucault introduced the term *biopolitics* to describe the integration, at the beginning of the modern era, of *life itself* into the mechanisms and calculations of power.[27] Foucault studied the ways in which state authorities, along with many others, took on the task of the management of life through the introduction of systems for education, policing, welfare, health care and so on. His discussion of biopolitics was notoriously brief, ceding almost immediately to the work on governmentality, which then gave way to the analysis of liberal government. But the moment of biopolitics marks a crucial break in his *oeuvre*, one that has been interpreted variously, particularly as regards the key divisions introduced in his later writings: sovereignty/governmentality and discipline/control. Throughout these debates, however, there has been a tendency to approach *life itself* as an object rather than a process, something that can be added or subtracted (as in the debates on abortion, cloning, or euthanasia).[28] And thus even the most sophisticated biopolitical investigations tend to ignore the ageing process and/or life course.[29] The challenge now is not simply to bring the theoretical discourses surrounding biopolitics to the analysis of ageing,

but (with this shift in the object of analysis) to rethink the epistemological and ontological grounds of the concept itself.

There is no better illustration of the changing biopolitical arrangements surrounding ageing than the shifts in the organisation of pension schemes over the past twenty-five years.[30] Who would have thought that thirty-five years after May 1968, the streets of Paris would rock with protests against pension reforms. But that is what happened in May 2003 when hundreds of thousands flooded the streets to protest Raffarin's proposed changes to pension policy, which aimed to make workers contribute for longer before being able to claim a pension. Such schemes, combined with heightening the retirement age and/or tax incentives for older workers, have become *de rigueur* in the wealthy capitalist countries. Many governments have introduced measures that require or compel retirement saving, predominantly through investment on global financial markets. Whether this involves mandatory private account schemes (as in Australia), centralised programs in which the state invests the bulk of funds (as in Sweden), or the market expansion of private insurance and employer managed schemes (as in the US), the result is a massive increase in the total asset holdings for retirement purposes. Blommestein points to a threefold increase in the financial assets of OECD pension funds in the period 1990–98, making them the largest stakeholders in the global financial system.[31] Not only has there been a growth in overall size of pension assets, but there has also been a shift in the investment allocation of such funds toward higher yield, riskier assets, such as equities. Already the uncertain consequences of this market exposure have been witnessed in the Enron crisis, where the holders of 401k pension plans (retirement contributions paid in the form of company stock) were the net losers.[32]

The particular combination of state-mandated discipline and global capitalist control that characterises these changes to pension schemes places the ageing person in a vulnerable situation. As Phillipson points out, ageing becomes less about collective social responsibility and more about individual risk.[33] There has been a withdrawal of state provision and a ceding of control to the flexible networks of the global financial system. This movement would seem to confirm the tendency, which many commentators locate in the late Foucault, to argue that the coercive power of sovereignty historically gives way to a decentred form of governmental rationality that produces subjects who act in accordance, if not in agreement, with forms of political power.[34] But another story can be told about ageing if considered not from the perspective of globalisation-from-above (neoliberal finance capitalism) but globalisation-from-below (the expanding multitude of migrant passages). According to the controversial *Replacement Migration* report published by the United Nations Population Division, which studied the demographic situation in eight countries with low fertility and mortality, there is a need in most wealthy nations for large increases in migration by the year 2050 to maintain current ratios of workers to the over-65 population.[35] But this is not the path being

pursued by the advanced capitalist countries, which have been involved in increased efforts to police their borders and control the flow of migrants, efforts that have only been redoubled in the current climate of the 'war against terror'.[36]

While economists and demographers argue over the extent to which migration can offset population ageing in wealthy nations, the mounting pressure of ageing in the developing world, coupled with increasing inequalities in the international divisions of wealth and labour, suggests that the flow of migrants to the global north is unlikely to slow.[37] As Sassen points out, the developed countries have almost universally chosen the path of strict border control, seeking out skilled professionals but excluding vast numbers of economic migrants and refugees, thereby feeding people smuggling and exacerbating demographic imbalances.[38] One aspect of this control is the cycling of workers through the wealthy economies—that is, the continual replacement of people prepared to take on low-paying, low-status jobs (including aged care) with newer cohorts of migrants. In this way, rich ageing nations can avert the situation where workers stay on and age in the host economy, offsetting their demographic imbalances with a continual refreshment of younger migrants. Technologies of border control, including the proliferation of detention camps, thus become central to the biopolitical strategies by which nation-states shape their age profiles.

Such control, however, can no longer be described as a decentred governmentality that operates through transversal networks without the surveillance of an overarching sovereign actor. As Giorgio Agamben argues, the detention camp provides the very diagram of sovereign power insofar as it is a space of exception that strips its interns of rights and reduces them to a condition of bare (or merely living) life. Indeed, Agamben presents a very different reading of the late Foucault than the Anglo-governmentality theorists, tracing the concern with biopolitics and *life itself* back to the earliest formulations of sovereignty in the West. Far from seeing the emergence of modern politics as a decisive break from the paradigm of sovereignty, he suggests 'the inclusion of bare life in the political realm constitutes the original—if concealed—nucleus of sovereign power'.[39] It is not my intention here to attempt to settle this dispute on conceptual skies or even to seek some kind of via media.[40] Suffice it to say that, for Foucault, the distinction between sovereignty and governmentality is at once historical and analytical. As Roberto Esposito explains, this split is the point of maximum tension in Foucault's work, at once a moment of fracture and indecision.[41] This leaves open the possibility that sovereignty and governmentality can exist and operate in tandem. What remains unclear, however, is the precise form this coexistence assumes at the present time.

In an essay entitled 'Indefinite Detention', Judith Butler argues that the assumption of a unilateral and prerogative power by President George W. Bush with respect to the detainees at Guantánamo Bay enacts a return to a historical time in which sovereignty was indivisible, before the separation of powers had instated itself as a precondition of political modernity.

In this scenario, the temporal relation of sovereignty to governmentality involves a kind of return of the repressed: '*the historical time that we thought was past turns out to structure the contemporary field with a persistence that gives the lie to history as chronology*'.[42] But the biopolitics of ageing, contained as it is by the twin pincers of global financial governance and sovereign border control, suggests a very different mode of combination between these two modes of power. This is where the turn to anti-ageing medicine as an object of research becomes strategic. The temporal arrangement at stake in the practices that constitute this emerging health regime are oriented not toward the return of the buried past but toward the foreclosure of the future. Its temporal configuration is that of prevention or pre-emption—a strike against a future fate that can only be avoided, or so the fantasy would portend, by an action that can never occur too soon. And, significantly, the growing commercialisation of health care is not the only sphere of contemporary life in which this logic of prevention ascends.

— Pre-emptive health

Healthy ageing: this is the slogan that governments worldwide have adopted to describe the transformations wrought to systems of aged care and aged health provision amid the ruins of the social state. The term proliferates among a number of others that, in their various discursive contexts, provide alterations on the basic theme: active ageing, positive ageing, successful ageing, ageing well, productive ageing. Common to all these notions is an emphasis on the active effort of individuals to shape their experience of ageing in such a way that it reduces demands or dependency upon public systems of provision. The categories of normal and pathological that, for Georges Canguilhem, provided the master binarism of biopolitics have given way to the mastertropes of the functional and the dysfunctional (subordinated to various risk assessment profiles and, as in the case of the drug Viagra, the all-encompassing marker of male heterosexual performance).[43] Such an emphasis on 'functional health' and wellness is evident in the highest of policy documents. Thus, the World Health Organisation explains: 'The need to focus on promoting health and minimising dependency of older people is a common principle of action. This approach has been termed "healthy ageing" or "ageing well"'.[44] No longer does the state nationalise the life of its subjects into a body politic on which it works *en masse*, in relation to the body politics of other states competing in similar terms. Rather, within the frame of a generally health-promoting environment, the state attempts to free itself from some of the responsibilities it acquired across the twentieth century, enhancing the obligations for individuals and communities to manage their own biological existences in the context of an increasingly globalised marketplace.[45]

The effects of this policy shift manifest themselves in several ways. For a start, there is an increased emphasis on the ageing process as an individual trajectory. As Gullette puts

it: 'Aging is about me and me alone'.[46] Within protocols of health administration, the boundaries between coercion and consent begin to blur as new administrative technologies promote autonomy, informed choice, and non-directiveness within a general ethos of 'quality of life' (defined within, and measured by, any number of rating scales). Accompanying this has been a multiplication of images and public messages about 'healthy ageing', displaying an emphasis on active lifestyles, heterosexual companionship and leisured scenarios. Little wonder then that the policy shift to healthy ageing has seen the emergence of new consumer options for health maintenance, body modification and the enhancement of capacities. With the weakening of the contract between the ageing individual and the state, there is at once a globalisation and personalisation of the risks associated with ageing, meaning that the maintenance of functional health becomes part of the life work of each active citizen. Anti-ageing medicine operates precisely in this opening, seeking to match and even displace the expertise of geriatric professionals with new forms of entrepreneurial practice that aggressively target ageing individuals and seek expanding global markets.

This is not to claim that anti-ageing practitioners are merely money-grubbing individuals or their patients gullible victims. As Mykytyn shows, these two categories of people merge, together forming a group that displays the qualities of a social movement, expresses intense frustration with the current environment of biomedicine, and occupies 'a tricky space that maneuvers legitimacy, rebellion, power and subjugation'.[47] Within this space, there is room for genuine care, good work, and a desire to help people who are not, at least at the level of perception, otherwise receiving help. Nonetheless, these practices emerge within a historical context that mandates their operation within existing frameworks of economic and political control.

Although anti-ageing medicine has precedents that extend back to the ancient world, its current proliferation dates to the great wave of globalisation, Internet marketing, and biotechnological discovery that swept the world just over a decade ago. In 1992, twelve physicians formed the American Academy of Anti-Aging Medicine (A4M), dedicating themselves to approach ageing as a treatable condition or disease. Today A4M boasts over 12 500 members in 65 nations. It holds regular seminars, conferences, and training programs in countries as diverse as Japan, Spain, France, Italy, Belgium, Singapore, Thailand, Korea, Mexico, Brazil, and the United Arab Emirates. And, while it is a non-profit organisation, it uses its website to promote a range of anti-ageing products and services, most notoriously the controversial human growth hormone (HGH). Central to the rhetoric of A4M is its claim to promote a 'new health care paradigm' or 'extension of preventive health care' that offers technical solutions to some of the challenges nation-states face with the ageing of the baby boom generation.

> We've all read the recent cover stories in our favorite news magazines. From *Time* to *Medical Economics* chiming in, America is being summoned to a new call to arms. The gauntlet to deliver viable alternatives to nursing homes and health care that focuses on treatment of full-blown states of disease has been cast. To this challenge, anti-aging medicine arrives as the new health care paradigm, offering a solution to alleviate some of the burden of this burgeoning older population. Anti-aging medicine, an extension of preventive health care, is the next great model of health care for the new millennium. This model is based on the early detection, prevention, and reversal of aging-related diseases.[48]

As Stephen Katz points out, such promotion of anti-ageing values and culture dovetails neatly with discourses of healthy ageing.[49] More accurately, these discourses share common ground in their struggle to represent the changes to ageing in the postmodern life course. It is not a matter of government policies that seek actively to foster the development of anti-aging medicine (indeed often there is direct concern about the spread of this field in government agencies), but the opening of a space in which these enterprises emerge alongside others that seek to cater to the ageing market.

Many commentators have objected to the ageist and sexist dimensions of anti-ageing discourses. But, while it is important and necessary to analyse these aspects of the field, such an analysis cannot in itself account for the current flourishing of anti-ageing cultures. That the historical proliferation of anti-ageing medicine is closely linked to changes in the governance of later life is suggested by the historian of ageing Carole Haber. She relates the decline of early twentieth-century anti-ageing treatments such as youth tonics and animal gland injections to the introduction of pensions and the consequent emergence of a vision of later life as a time of independence and autonomy. With the financialisation of pension schemes in an attempt to avoid the so-called age crisis, there emerge new opportunities for those who promise to slow or forestall the ageing process. The trouble with such promises, Haber argues, is that, like their earlier precedents, they are embedded within a discourse of ageing and old people as an economic burden—an 'apocalypse of ageing' which demeans and marginalizes the very process of growing old.[50]

Such arguments, as illuminating as they are from the historical perspective, suggest a certain nostalgia for the social state. While correlating, I think accurately, the boom in anti-ageing medicine with the decline of social welfare, they posit a Fordist or Keynesian norm against which contemporary capitalism appears excessive or misguided. Consequently, there is a tendency to draw easy parallels between present and past anti-ageing practices, avoid a detailed analysis of current neoliberal modes of governance, and gloss over the ways in which welfare mechanisms plug but do not reverse the capitalist neglect of ageing bodies.

As is well known, centralised systems of state provision have to varying degrees given way to more flexible and globally networked techniques for the control of vital human existences. But commentaries on this transformation frequently present it either as an inevitable historical necessity (as in the work of Francis Fukuyama) or a regrettable and potentially reversible disaster (as in the late work of Pierre Bourdieu).[51] One consequence of this is a focus on what has been lost (excessive state power in one version, social equity and justice in the other) rather than on new or radically transformed strategies for the management of human lives. Anti-ageing medicine is one such domain of contemporary *biopolitical* practice. But to analyse this emerging field solely in terms of the positioning of the health care user as consumer and the related processes of neoliberal capitalist globalisation is not yet to ask how the sovereign aspects of contemporary global power come to bear upon it. Particularly in the current climate of global war, there is a need to explore how emerging forms of biopolitical practice are shaped not only by market forces but also by the actions of sovereign power. Future research might ask how the logic of prevention, which aims to protect the present from the future, shapes not only the global emergency of pre-emptive war but also the norms of citizenship in the democratic polity.

We need, too, to fill in the micro-dimensions of this changing situation through direct engagement with those involved in the current debates and practices surrounding anti-ageing medicine. Most pressing is the need to understand how users of anti-ageing medicine perceive the role of governments in the regulation of health provision, the connection of their practices to the wider dynamics of global power, and their hopes for future biotechnological developments—in sum, the reasons why they turn to anti-ageing services instead of (or as well as) those of geriatric professionals. Such hands-on engagement, proper to the practices of cultural research, is central to future versions of this project.[52]

For now, let me end by observing that the well-known motto 'prevention is better than cure' seems out of place under contemporary social conditions. There has emerged a distinct gap between prevention and cure as both social causes and public actions disappear, leaving the citizen alone before perennial risks that he/she is obliged to manage within the constraints of a globalised market. If the logic of prevention or pre-emption fails, the individual is both responsible and guilty, left to fend within their own networks, however they might be experienced or constructed. It is thus no surprise that anti-ageing practices and values seem, despite repeated warnings from governments and scientists, to be gaining an ever-greater foothold in the everyday lives of the people who comprise ageing populations. The challenge is to account for lived dimensions of this uptake without reverting to moralistic or purely technical judgements that oppose popular life extension practices and beliefs from an elevated perspective—the viewpoint of policy that assumes it always knows better than subjects who face complexities on the ground. Cultural research is ideally suited for these purposes, since

it can position the bottom-up views of ageing individuals in relation to such overarching administrative perspectives. Ranging across discourses as diverse as molecular biology, political economy and email spam, it can detail the biopolitical complexities that facilitate the growth of anti-ageing medicine under current conditions of global capitalism and sovereign power. Ultimately, this allows an understanding of anti-ageing cultures in the context of the very modernity that makes them possible; the disease of modernity, that is, that *sickness unto death* that can neither be prevented nor cured.

BRETT NEILSON is Senior Lecturer in the School of Humanities at the University of Western Sydney, where he is also a member of the Centre for Cultural Research. He is the author of *Free Trade in the Bermuda Triangle … and Other Tales of Counterglobalization*, University of Minnesota Press, 2004. <b.neilson@uws.edu.au>

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